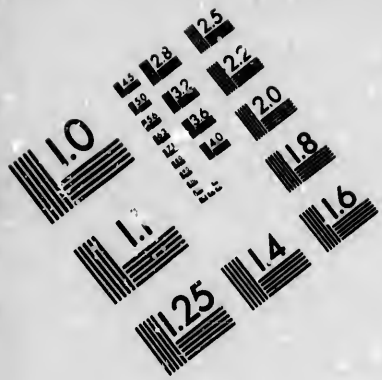

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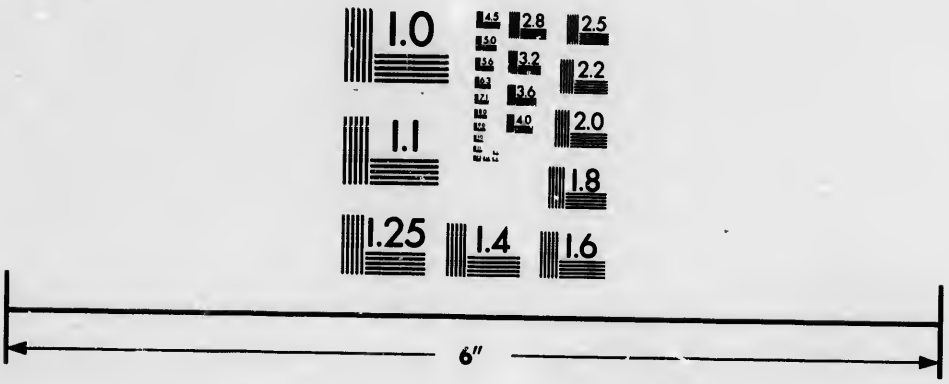

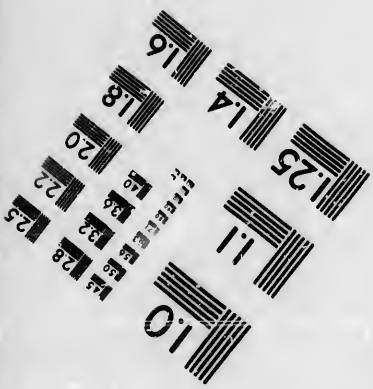

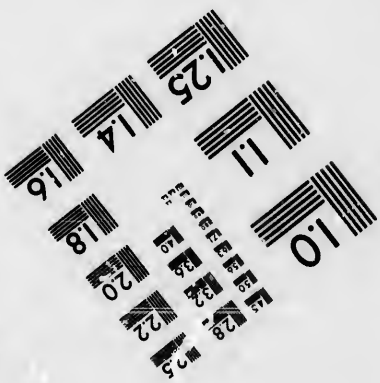

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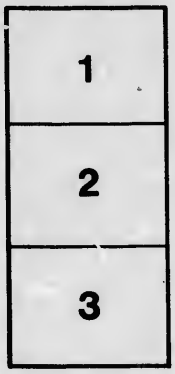


JOURNAL

OF THE

NEW BRUNSWICK SOCIETY,

FOR THE ENCOURAGEMENT OF

Agriculture, Home Manufactures and Commerce,

THROUGHOUT THE PROVINCE,

INSTITUTED AT FREDERICTON, N. B., AUGUST 30, 1849.

"Agriculture feeds us; to a great extent it clothes us; without it we could not have manufactures, and we should not have commerce. These all stand together, but they stand together like pillars in a cluster, the largest in the centre, and that largest is agriculture."—*Hon. Daniel Webster.*

FREDERICTON, N. B.:

PRINTED BY JAMES HOGG, REPORTER OFFICE.

1850.

PREFACE.

"Agriculture feeds us; to a great extent it clothes us; without it we could not have manufactures, and we should not have commerce. These all stand together, but they stand together like pillars in a cluster, the largest in the centre. and that largest is agriculture. Let us remember too, that we live in a country of small farms, and freehold tenements; in a country in which men cultivate with their own hands, their own fee simple acres; drawing not only their subsistence, but also their spirit of independence and manly freedom from the ground they plow. They are at once its owners, its cultivators and its defenders. And whatever else may be undervalued, or overlooked, let us never forget that the cultivation of the earth is the most important labour of man. Man may be civilized, in some degree, without great progress in manufactures, and with little commerce with his distant neighbours. But without the cultivation of the earth he is in all countries, a savage. Until he stops from the chase, and fixes himself in some place, and seeks a living from the earth, he is a roaming barbarian. When tillage begins, other arts follow. The farmers, therefore, are the founders of human civilization."—*Hon. Daniel Webster.*

THE utter prostration of the Staple Trade of this Province, consequent upon the altered policy of the Mother Country—the general impression that the Crop heretofore most relied upon—the Crop of Timber—had become worthless and unavailable in the market—the necessity thereby implied of making a transition from the business of lumbering to that of farming and manufacturing—the very serious consequences to individuals in such a change—the conviction that those who have been engaged in lumbering might be benefitted by some new notions of husbandry—that making up exhausted land was a very different thing from wearing out a fresh and teeming soil—that farming old land required much more skill and intelligence than merely clearing and cropping that which was new—that the settlers generally would have to give up Foreign for Domestic Manufactures—and the Foreign Market for a Home Market—these were some of the motives which led to the establishment and Incorporation of the Society* from which this publication has emanated.

* This Society was Incorporated by an Act of the General Assembly, 1850, with an annual allowance of £200, on £100 being raised by subscription throughout the Province in favour of the Funds of the Society.

It is quite true that various local Agricultural and other Societies bearing upon the same object, are in operation, but it was deemed that much might still be done by a Central Society; acting for all, sustained by all, promoting measures of general interest, and developing the industrial resources of the Province at large.

It was considered in the outset by some, that the Society should have a political cast or bearing, but that idea was soon abandoned, and it is now confidently believed that more good may be done by eschewing the questions of Free Trade and Protection, wholly and altogether.

It will be our object rather to collect facts, and to disseminate information concerning the available resources of the Province; to encourage individuals in all laudable attempts to develop them; to bring together, in short, for the common weal, the talents, experience, and influence of all who desire to promote the object of "Agriculture, Home Manufactures, and Commerce, throughout the Province." The field is surely wide enough without trenching upon that of the Politician or the Legislator.

In an humble fashion, we shall try to follow the plan of the Highland Society, which has done so much for Scotland, and that of many other subsequent National, Provincial, and State Agricultural Societies, whose influence is now so important wherever they have been established.

If the Farmers are unskilful, let us try to lay before them the best information—if the climate be severe, let us bring under notice all the aids which science furnishes, to overcome and ameliorate the ruggedness of nature:—if there be any available investments for the Capital of the Manufacturer in this wide Province, let us hasten to call attention to them:—if the Mercantile interests can be placed upon a more solid foundation than heretofore, let us aid in bringing it about; let us look at our true position and trust henceforward solely to our own intelligence, industry, and economy.

With a view of breaking ground in this fair field for useful exertion, we have caused to be prepared for general circulation the following series of Reports upon subjects claiming our immediate attention; and at convenient intervals it is our intention to follow them up by others of a similar practical character.

We have not as yet secured the general co-operation of the Rural Districts; but we claim it most earnestly—our proceedings can never be in opposition to the County Agricultural Societies,

but always in aid of them. By their best feelings of Patriotism we would summon all good and intelligent men to join us in "a long pull, a strong pull and a pull altogether" to raise the Agricultural, Manufacturing, and Commercial industry of New Brunswick out of its present low and languishing condition.

JAMES ROBB,
President and Chairman of the Executive Committee.

RESOLUTIONS.

At a Public Meeting held in the County Court House on the evening of Thursday the 30th of August, and continued by adjournment on the evening of Monday last the 1st instant. Robert Chestnut, Esq., being called to the Chair, and Mr. James Hogg appointed Secretary, the following Resolutions were moved, seconded, and adopted, by large majorities; D. S. Kerr, Esq., taking the lead, as the propounder of the Resolutions, and several of the gentlemen present taking an active part in the discussion.

Whereas the members who compose this meeting, deeply deploring the low and impoverished state of this Province, and that pressure which seems so heavily weighing upon almost all classes of its inhabitants, are earnestly desirous of tracing out the true causes of the evils, and suggesting a practical remedy; therefore

Resolved, 1st. That in the opinion of this meeting, the habits of the people of New Brunswick generally, in relation to the exigencies of a new Province, and as compared with those in thriving countries are at fault, and call for reform in point of industry and economy.

2nd. That the unjust practice of crying down the soil, the climate, and general capabilities of this highly favoured Province, having largely succeeded in blasting its character at home and abroad, and of consequence, checking the energies and dissatisfying the minds of the inhabitants, and inducing large bodies of them to leave, as well as dissuading emigrants of capital and respectability from embarking for our shores, is one great cause of the backward state of this Province; whereas such slander should be rigorously checked, and it be made extensively known, that in point of capabilities, this Province is not surpassed by any of the six North Eastern States, nor by any Province in British North America.

3rd. That the business of Agriculture, which is greater in importance than any other interest, and the station of the farmer, have been hitherto so much looked down upon and neglected by those maintaining the higher walks of life, and by the inhabitants generally, as to have deterred, in a great degree, the youth of the country and many other classes, with their means of advantage,

from choosing it as an occupation of life, and thereby contributed to the present low state in farming pursuits; and in the opinion of this meeting, reform in this particular, by endeavouring to elevate to their proper position, the paramount interests of farming and the honorable station of the farmer, would greatly tend to improve the condition of the Province.

4th. That the great want of science, skill, and knowledge in the business of farming, and the neglect of Agriculture generally, is so conspicuous in every section of this Province as to lead at once to the conviction that no country, how fertile soever, could possibly flourish under so defective a system so badly carried out, and largely accounts for the Agricultural depression which so extensively prevails; and, in the opinion of this meeting, prompt and effective action towards reform in this particular would largely contribute to increase the wealth and general advancement of this country.

5th. That the lamentable neglect of home manufactories in New Brunswick, and the importation, by a ruinous mode of payment, of almost every manufactured article in use, from British and Foreign markets, has done more than can be described to divert the flow of capital and emigration to other countries—to cripple the operations of the farmer—to retard the advancement of the Province—to occasion that backwardness, poverty and distress, displayed in every part of it, and to place it in so disparaging a light especially when compared with the adjoining States, that in the opinion of this meeting, the energies of the Legislature and of the people of this Province, generally, should be immediately directed to a thorough change in this particular, and that, taking into account the policy lately pursued by the Parliament of England, towards her Colonies, it is further the opinion of this meeting, that the importation and use of British and Foreign manufactures shohld be discountenanced, and a spirited, effective and uniform encouragement, afforded, to the establishment of domestic manufactories and to the protection, preference and general use of home productions.

6th. That the commerce in lumbering, called by some, "our staple export" as hitherto encouraged and indiscriminately engaged in to the neglect of almost all other interests, has proved sadly destructive to a large body of our farmers—injurious in its results to the great majority of the people, and a prominent cause of that embarrassment and ruin which now extensively exist throughout the Province, and that in future the employment in this commodity should be restrained within narrow limits, and the farming, the

mining, the fishing, and the manufacturing interests put forward, protected, and encouraged, as offering far more healthy and profitable sources of wealth and commerce to the mercantile and other interests throughout the Province.

7th. That this meeting respectfully submits, that if the suggestions contained in the foregoing Resolutions, with sentiments of a kindred order, be undertaken by New Brunswickers, and acted on with spirit and determination, it will not only in a short time relieve them from present embarrassments, but lay a permanent foundation for future wealth and prosperous advancement.

8th. That this meeting will cheerfully co-operate with their fellow subjects in Saint John, and elsewhere, in any constitutional and practical measure which may tend to improve the condition of this Province.

9th. That for the better carrying out of the foregoing objects, it is the opinion of this meeting that a body to be called "A Provincial Society for the encouragement and general promotion of Agriculture, Home Manufactures, and Commerce throughout the Province," should be formed at Fredericton, and incorporated by Legislative enactment, with sufficient power and reasonable means at command for the efficient working of the Society.

Agreeably to an addition moved by John A. Beckwith, Esq., to the 9th Resolution, the following gentlemen were named, in order to frame a constitution to give effect to the Resolutions carried, and to submit such plan to a meeting to be held on the 31st of December next in the same place, viz:—Robert Chestnut, Thomas R. Barker, the Hon. Attorney General, John A. Beckwith, Dr. Hartt, John T. Smith, David S. Kerr, William Cadwallader, James S. Beek, Denis O'Leary, James Hogg, Charles A. Harding, T. R. Estey, John Davis, and William Watts, Sen.; with power to add to their numbers.

It was also resolved that Dugald Stewart, Esq., of Restigouche, the Rev. James McDonald of Gloucester, James Caie, Esq., of Northumberland, the Hon. William Crane, of Westmorland, Wm. H. Steves, Esq., of Albert, David Wark, Esq., of Kent, Thomas Allen, and Robert Jardine, Esqs., of Saint John, C. L. Hatheway, Esq., of Sunbury, William Foshay, Esq., of Queens, Hon. Col. McLeod, of Kings, James Brown, Esq., of Charlotte, and Charles Perley, Esq., of Carleton, be corresponded with in relation to the Constitution to be adopted.

R. CHESTNUT, Chairman.

JAMES HOGG, Secretary.

NEW BRUNSWICK SOCIETY,

FOR THE ENCOURAGEMENT OF AGRICULTURE, HOME MANUFACTURES AND COMMERCE.

At a Public Meeting held at the County Court House on the Evening of the 7th January, in connection with the poposed Provincial Society, agreeably to the 9th of a series of Resolutions passed at a Public Meeting, in Fredericton, on the 1st day of October last. Robert Chestnut, Esq., was called to the Chair, and John A. Beckwith, Esq., appointed Secretary. The Chairman addressed the meeting and referred to Mr. Kerr.

D. S. Kerr, Esq., then explained the object of the meeting, stated what had been done by the Committee, read the Constitution which had been prepared, stated that His Excellency the Lieut. Governor had kindly consented to become patron of the Society, and proposed the Constitution as read for adoption, which being seconded by Mr. John T. Smith was put to vote, and carried unanimously, and is as follows:—

CONSTITUTION.

Article 1. The style of this Society shall be "The New Brunswick Society for the encouragement of Agriculture, Home Manufactures, and Commerce throughout the Province," its objects shall be to improve the condition of those important branches respectively and as connected with each other, by such practical and effective means as may be suggested and approved at any regular meeting of the Society, or by any Committee or Committees appointed by such Society, and whose acts may be approved and adopted.

2nd. The Society shall consist of such inhabitants of the Province as may signify in writing their wish to become members, and shall pay on subscribing not less than one dollar, and annually thereafter, not less than one dollar; and honorary and corresponding members may be admitted by vote of the Society, without payment: Provided always, That Presidents of County Agricultural Societies, or a delegation from each shall, *ex officio*, be members of this Society, *without* payment; and Provided also, That the payment of £5 or more shall constitute a member for life and exempt the doner from annual contributions.

3d. The officers of this Society shall consist of one President and fourteen Vice-Presidents, namely, two *Vice* Presidents for the

County of York, one of whom shall reside in the City of Fredericton, and a Vice-President for each of the Counties, being a resident thereof, a Recording Secretary, a Corresponding Secretary, a Treasurer, an Executive Committee to consist of the officers above named, and twelve additional members, five of whom shall constitute a quorum, and a general Committee the members of which shall be the Legislative Councillors and the Members of the House of Assembly of the Province for the time being, in the respective Counties where they reside, or which they respectively represent: Provided always, That the said general Committee shall be considered and treated, by this Constitution, as private individuals and for the better carrying out the Society's objects, in parts beyond Fredericton, and not in their Legislative capacity.

4th. The general duties of the officers of this Society shall be as follows: the President (or in his absence, one of the Vice-Presidents) shall preside at the regular meetings of the Society, preserve strict order, and put to vote all questions submitted, which shall be determined by the majority then present, he is expected to take a prominent part in originating and bringing before the Society such measures as may appear to him calculated to advance its interests, and shall do and perform such other acts as may be required of him by this Constitution, or by vote of this Society, the Recording Secretary shall keep the Minutes of the Society in a Book to be procured for that purpose; the Corresponding Secretary shall carry on a correspondence with other Societies, with individuals, and with the general Committee in furtherance of the objects of the Society. The Treasurer shall collect and receive the funds of the Society, and keep them in such a manner as the Society may determine, and shall disburse them on the order of the President or a Vice President, countersigned by the Recording Secretary, and shall make a Report of the receipts and expeditures at the annual meeting in January in each year, the Executive Committee shall have in charge the general interests of the Society, shall take care of, and distribute or preserve all articles which may be transmitted to the Society, and also shall have the charge of all communications designed or calculated for publication, and so far as they may deem expedient, shall correct, arrange, and publish the same, in such manner and form as they shall consider best calculated to promote the objects of the Society, and shall make, or cause to be made, an annual Report of the Society's doings for the inspection of the Legislature and public at large, and the general Committee are charged with the interests of the Society in the Counties in which

they shall respectively reside—and shall constitute a medium of communication between the Executive Committee and the remote members of the Society.

5th. A special Committee or Committees, for any purpose connected with the interests of the Society, may be appointed at any regular meeting, by the resolution of the majority then present.

6th. There shall be four regular meetings of the Society in Fredericton in each year, namely, on the first Wednesday in January, the first Wednesday in April, the first Wednesday in July, and the first Wednesday in October, except the first meeting of this Society to be held on the 31st day of January, 1850. Provided always, That all the officers of the Society, except the general Committee, shall be elected by plurality of votes at the annual meetings in January in each year, and Provided also that there shall be a general meeting of the Society during the session of the Legislature at such time and place as the Executive Committee may appoint, giving at least fourteen days notice in the Royal Gazette, and in such other papers as may be deemed advisable.

7th. The Executive Committee shall have the power to fill any vacancies which may occur in the offices of the Society during the year or supply their places *pro tem.* at any regular meeting, and may also call extra meetings, if found essential for the interests of the Society so to do. Provided That due notice be given of the time and place, and specific objects of such extra meetings, in one or more of the public prints, and by twelve or more hand bills posted up in the City of Fredericton at least twenty four hours before such meeting. Provided also, That at such meeting there be at least nine of the Executive Committee, besides twelve members present, to form a quorum.

8th. This Society may hold, and if considered advisable by the Executive Committee, may co-operate with one or more Country Agricultural Societies in holding an annual show and fair in any County of the Province at such time and place, and in such manner as shall be designated by the Executive Committee who may award such premiums and payments towards the objects contemplated by this Society as may be reasonable and compatible with the funds of this Society.

9th. While all persons holding positions of rank and influence in New Brunswick, members of County Agricultural Societies, and other Institutions, public Editors and the inhabitants of the Province generally are respectfully solicited to join this Society and to give their presence at its meetings, and their co-operation and

aid in advancing its interests, the office bearers are especially called on to be regular and prompt in their attendance, and diligent and persevering in their efforts towards carrying out the legitimate objects of this Society, and for the faithful, spirited, and efficient performance of their respective duties, shall at the termination of the yearly services be entitled to receive the thanks of the public expressed through this Society, in such manner as it may determine; Provided always, That it shall be in the power of this Society to award to any particular office bearer or office bearers, for services actually performed, such remuneration as may appear necessary, reasonable, and just.

10th. This Constitution shall be construed liberally in favour of carrying out the avowed objects of this Society, and may be amended by a vote of two thirds of the members attending any annual meeting in January in each year; Provided that notice in writing be given at the previous quarterly meeting specifying the intended amendment.

On Motion of John A. Beckwith, Esq., the following gentlemen were proposed as Office Bearers for the Society, under the patronage of His Excellency during the present year:—which passed unanimously—

PATRON:

His Excellency Sir EDMUND W. HEAD, Bart.

PRESIDENT:

Professor ROBB.

VICE-PRESIDENTS:

York County—Robert Chestnut, Esq.
Ditto, (rural district)—R. D. James, Esq.
St. John—Robert Jardine, Esq.
Charlotte—James Brown, Esq.
Sunbury—C. L. Hatheway, Esq.
Queen's—William Foshay, Esq.
King's—Allan C. Evanson, Esq.
Westmorland—Hon. William Crane.
Kent—William M'Leod, Esq.
Gloucester—Francis Ferguson, Esq.
Restigouche—Dugald Stewart, Esq.
Carleton—Charles Perley, Esq.
Albert—Thomas Gilbert, Esq.
Recording Secretary—James S. Beek, Esq.
Corresponding Secretary—John A. Beckwith, Esq.
Treasurer—Joseph Gaynor, Esq.

Additional Members of the Executive Committee—Mr. Thomas R. Barker, William H. Odell, Esq., Frederick W. Hatheway, Esq., Mr. William Watts, David S. Kerr, Esq., Hon. L. A. Wilmot, Mr. George Todd, Mr. Constantine Connelly, Mr. John T. Smith, James Taylor, Esq., J. A. Maclauchlan, Esq., H. Fisher, Esq.

On motion of D. S. Kerr, Esq., the following Resolutions were unanimously adopted:

Resolved, That the grateful thanks of this meeting be tendered to His Excellency Sir E. W. Head for his kindness in consenting to become the Patron of the New Brunswick Society; that His Excellency be waited on with a copy of the Constitution and List of Officers as now adopted; and also that His Excellency be most respectfully solicited to honour the Society with an Address at such time and place as he may appoint, at which time donations towards the Funds of the Society will be received; and further

Resolved, That the President, Mr. Kerr, and Capt. Chestnut, be a Committee to attend to the foregoing duty, and call the first general meeting of the Society conformable thereto, giving due notice thereof.

Resolved, That the Executive Committee be a Committee to obtain subscribers to the Society agreeably to the Constitution, and pay the proceeds into the hands of the Treasurer.

R. CHESTNUT, Chairman.

JOHN A. BECKWITH, Secretary.

NEW BRUNSWICK SOCIETY,

For the Encouragement of Agriculture, Home Manufactures and Commerce, throughout the Province.

The first general meeting of this Society took place, agreeably to its Constitution, on the evening of Thursday the 31st January, 1850, at the County Court House in Fredericton; was numerously and respectably attended, and addressed by several speakers. The President opened the proceedings by referring to the manner in which this Society had been got up, and the objects it had in view. D. S. Kerr, Esq., read the proceedings of the previous meeting, and the Constitution of the Society, and reported that His Excellency the Lieut. Governor had been waited on, agreeably to the Resolution of the public meeting of the 7th of January, and had given a liberal donation to the Funds, but deferred addressing the Society in its present stage, for reasons entirely satisfactory to the Committee; he also stated on behalf of the Committee for collecting subscriptions, that they had ascertained it was not advisable to take much action in that line until the Constitution and first proceedings of this Society should be published, when the subscription list would be promptly attended to—he handed in, however, a subscription of £12—£6 of which he paid to the Treasurer, the remainder being available at any time, and stated that there seemed the best feeling in every quarter, manifested towards the Society; the following Resolutions were then submitted, and passed unanimously:—

1. *Resolved*, That the Executive Committee do, without delay, exert their efforts to obtain donations and subscriptions for the Society, agreeably to the Constitution, and pay the same to the Treasurer.

2. *Resolved*, That the Executive Committee do forthwith prepare and submit to the Legislature, at the approaching Session, a Petition, setting forth the formation and object of the Society, with a notice of its proceedings and the amount subscribed and paid, praying for an Act of Incorporation, and an annual grant of money to aid the Society in its operations, a draft of the Act prayed for, to be submitted, if required, for the purpose.

3. *Resolved*, That the Publishers of Newspapers in Fredericton and in other parts of the Province, are respectfully requested to

publish for the information of the public, the Constitution of this meeting as may be furnished to the first Publisher, by the Recording Secretary, and that fifty extra copies of the Amaranth, the Head Quarters, and the Reporter, respectively, be supplied to this Society for distribution.

4. *Resolved*, That this Society especially solicits at this time, the friendly concurrence and energetic aid of its Office-bearers and of County Agricultural Societies in the different parts of the Province, towards advancing the interests of this Society, and their exertions, in obtaining donations and subscriptions for increasing the Funds, to be forwarded to the Treasurer, and that the Corresponding Secretary do forward a Paper containing this solicitation, and the Constitution and proceedings of this Society, to each Office-bearer and President of County Agricultural Societies throughout the Province, for their information.

5. *Resolved*, That the Corresponding Secretary do forthwith correspond with the Office-bearers of this Society in different parts of the Province as also with the Presidents of County Agricultural Societies in different parts of the Province, as also with the Presidents of County Agricultural Societies and individuals with the view of enquiring whether, in their opinion, there be any particular subject or subjects deserving the immediate attention of this Society, and if so, whether such person or persons will consent to be named on a special Committee at any quarterly meeting of this Society, to enquire and report on such subject at a subsequent quarterly meeting.

6. *Resolved*, That this Society cordially invites a free and friendly intercourse with County Agricultural and other Societies, and with individuals in every part of the Province, and elsewhere, on subjects within the purposes of this Society, and any communications or suggestions so designed will be thankfully received and respectfully attended to.

7. *Resolved*, That the Executive Committee do forthwith take the necessary steps to obtain a small Library for the Society's use, especially of such works as may afford the most practical knowledge for dissemination.

8. *Resolved*, That the Executive Committee do as speedily as possible, institute an enquiry, and Report to this Society at its meeting during the Session of the Legislature, whether it may be desirable and practicable for this Society to hold an annual Show and Fair in this present year, and if so, at what time and place, and in what manner, with the probable expense attending the same;

and that the Corresponding Secretary, with the aid and advice of the Executive Committee, do without delay, put himself in communication with each Vice-President of this Society, and with each Agricultural Society in this Province or the proper officers thereof, with the view of ascertaining the sentiments and wishes in the respective Counties and County Agricultural Societies, and whether it would be desirable for this Society to co-operate with one or more of them, in holding an Annual Show and Fair, and, if necessary, to submit a Petition to the Legislature for a grant of money towards carrying out the object.

9. *Resolved also*, That the said Executive Committee do consult the several members of the general Committee on their arrival in Fredericton as to their sentiments with reference to such proposed Show and Fair, in the respective counties where they reside.

10. *Resolved*, That the Executive Committee will, until further notice, meet on the first Wednesday of every month, at some convenient place, for the despatch of business.

SPECIAL COMMITTEES.

1. *Resolved*, That the President, the Hon. the Vice-President for Westmorland county, the Hon. Harris Hatch of Charlotte county, Henry Cunard, Esq., of Northumberland county, Mr. James Ingledew of St. John, Hugh J. Hansard, Esq., and Mr. William Watts, Senr., of York county, be a Special Committee for investigating as to the most practical modes adapted to the circumstances of this Province, of accumulating, preserving, and applying different kinds of manures, especially manures available from household and farm-yard establishments, and to Report on the same, with the view of having the information disseminated at the Quarterly meeting in April next.

2nd. *Resolved*, That Mr. William Watts, Senr., Colonel James A. Maclauchlan, Mr. Thomas R. Barker, and Mr. Robert Gray of York county, and William Porter, Esq., of Charlotte county, be a Special Committee to enquire and Report to the Society at the Quarterly meeting in April next, on the best modes adapted to the circumstances of this country, of raising Turnips, Mangold Wurtzel, Carrots, and Parsnips.

3rd. *Resolved*, That William H. Odell, Esq., Mr. William Watts, Senr., John A. Beckwith, Esq., James Taylor, Esq., and Mr. William Grieves of York county, be a Special Committee to

enquire and Report at the Quarterly meeting in April next, on the best means of obtaining a good quantity of Seeds for general use, stating what descriptions may be raised in the Province to advantage, and the quarters from whence other descriptions can be imported on the most reasonable terms.

4th. *Resolved*, That Mr. George Ingraham, Colonel Allen, Mr. Robert Gray, Mr. William Grieves of York county, and the Hon. Charles Harrison of Queen's county, be a special Committee to enquire and Report at the Quarterly meeting in April next, on the best modes of fattening cattle and hogs for marketable Beef and Pork.

5th. *Resolved*, That the Vice-President for York, residing in Fredericton, David S. Kerr, Frederick W. Hatheway, James Taylor, and James S. Beek, Esqrs., of York county, the Vice-President for St. John county, and the Hon. Alexander Rankin of Northumberland county, be a Special Committee to enquire and report at the meeting of this Society to be held during the Session of the Legislature, on the best Cash Markets for Beef and Pork; and also the most practical and effective modes for putting up the same fit to command such markets, and if necessary to prepare and submit a draft of a Bill to the Legislature for that purpose.

6th. *Resolved*, That John T. Smith, A. T. Coburn, Esq., Mr. James Hogg, Mr. George Todd, Mr. William Morgan, Dr. H. A. Hartt, Harvey Garcelon, Esq., and Mr. Peter M'Farlane, of York county, be a Special Committee to enquire and Report at the Quarterly meeting in April next as to the best modes of encouraging Household and Provincial Manufactures and the Mechanic Arts, together with the different kinds thereof, and as to what kind of Factories may be undertaken in New Brunswick, with reasonable prospects of success.

7th. *Resolved*, That the Vice-President of York county residing in Stanley, Marshal d'Avray, George Roberts, and Henry Fisher, Esqrs., be a Special Committee to enquire and Report to the Society at its next Quarterly meeting, on the best modes of imparting information to the farming and working classes in this Province, and the most efficient way of disseminating Agricultural and other useful information among such classes.

James Taylor, Esq., spoke of the importance of a Farmers' Bank, but the matter was deferred until a subsequent meeting. The Vice-President of Sunbury addressed the Society in an able manner on the subject of Emigration, and on the importance of having an Emigrant Agent for each County of the Province; his

remarks were received with high approbation, and it was referred to the Executive Committee for further consideration. His Honor the Master of the Rolls gave a handsome donation towards the Funds of the Society, and made an excellent and very gratifying Address, referring to the healthy climate and superior advantages of this Province, as also to the utility of Professor Johnston's Report—highly commended the objects of the Society and the manner in which it had been undertaken. The donation list was considerably added to in the course of the evening, and after some remarks from other gentlemen, the Society adjourned.

JAMES S. BEEK, Recording Secretary.

Fredericton, January 31, 1850.

REPORT OF THE COMMITTEE ON MANURES.

The Special Committee of the New Brunswick Society for the encouragement of Agriculture, &c., which was appointed on the 31st of January last "to investigate into the most practical modes adapted to the circumstances of this Province, of accumulating, preserving, and applying different kinds of Manures, especially Manures available from Household and Farm Yard establishments," have attended to that duty and beg leave to submit the following

REPORT.

It was formerly thought that most of the constituents of plants were produced within themselves by some supposed, mysterious, inherent power, but it is now well established that their chemical elements are derived exclusively from materials existing in the earth, the air, or the water which surround them: such "from the beginning" has been the harmony and relation between their respective composition that, weight for weight, the materials found in the soil or the atmosphere are convertible into the roots, stems, leaves, flowers and seeds of our cultivated crops, and these again into the blood, flesh and bones of men and animals.

That which thus nourishes is what is commonly called *food*, and neither crops, nor colts, nor calves, nor children can be made to grow and flourish in any other way than by the plentiful administration of such food.

But the food of these differs respectively, and that which is required for different kinds of crops differs also to a certain extent, still it is perfectly certain that for the luxuriant growth of any crops we must administer in proper proportion all the materials which the Chemist finds on analysis to be the uniform constituents of such crops.

When plants are freely acted upon by heat *the great bulk* of their substance becomes gaseous, inflames and disappears: this bulky combustible portion consists chiefly of four substances which have been termed respectively Carbon or Charcoal, Hydrogen, Oxygen, and Nitrogen: with the exception of the last, these are in general readily accessible in the atmosphere or in the soil, or *through* the soil to plants growing under ordinary circumstances.

The Ash or Mineral part which seldom exceeds 5 per cent. of the whole, consists of about nine different elements, which also, with a few but important exceptions are generally to be found in soils. Here then, as in most other cases, Nature does a great deal of the work for us, that is, the chief portion of the required elements are presented by the hand of Nature, while a certain and a necessary proportion must be supplied by the skill and labour of the husbandmen: these are most generally the *Salts of Ammonia* and the *Earthy Phosphates:* from the former the flesh, and from the latter the bones of animals are afterwards chiefly to be constructed. If the Farmer refuses to do his part he will starve his crops: if he starves them, they will starve him and his cattle, but if he feeds them they will feed him and his most bountifully.

Since plants are thus greatly nourished or fed by materials derived from the soil, the fundamental principle will ever be to return to the land an equivalent in manure for the materials contained in the crops which have been removed, or else it will soon become barren or incapable of nourishing crops at all: if from twelve or thirteen different substances originally present in a fertile soil we remove two every year for six years, the land must necessarily thus become exhausted, or even, if, in one year, we remove one or two of primary importance their absence will be the cause of a special barrenness or exhaustion of the soil: when, therefore, a farmer has for a series of years been selling off his hay and oats and cattle without making the necessary returns in lieu thereof, his land thereby becomes either generally or specially exhausted, and he must cast about and consider upon what principle he may at the cheapest rate replace the old materials, and restore the necessary elements of productiveness to the soil.

Manures are substances capable of replacing either directly or indirectly the lost elements, and of feeding or sustaining the growth of crops: without them the farmer can do nothing, with them almost every thing: they are the basis and life-blood of all successful husbandry: by them we may increase the production and diminish the cost of food, they are in fact the material out of which the food is to be formed, and they ought to be economized and husbanded as so much coin, ever remembering that in no part of the farm work is labor better invested than in their collection and preservation.

Throughout this Province generally there seems to have prevailed much ignorance or neglect of these first principles: it would not be very difficult, we apprehend, for most farmers to make or save at least one-half more manure than they do, and it would be

easy by care and composting to increase the quantity of manure actually made three or four fold: it is wrong, therefore, to ascribe to the country or the climate what has been in too many instances due to the ignorance, idleness, or reckless improvidence of the settlers themselves. It will be our endeavour in the remainder of this paper to indicate certain of the points and principles, by attention to which, some of the evils of the old method may be more or less effectually repaired.

Manures we have said are such substances as are capable of supplying directly or indirectly one or more of the elements of our cultivated crops: accordingly it must be obvious that plants themselves or the parts of animals fed upon plants, must be the basis of all common manures—that whatever has been part of a living plant or animal may by proper treatment be made to yield the materials out of which living plants and animals are again to be constructed: practically, however, it must be our endeavour to procure the cheapest or waste forms of these, and also to make use of such materials as are accessible and contain one or more of the same constituents as plants, even although they may not hitherto have formed part of any living plant or animal.

In this point of view the sources of manure will appear to increase and multiply: the barn yard, the hog pen, the sheep fold, the hen roost, and the pigeon house, the privy, the ash bin, the wash tub, the slaughter house, and the tan yard, peat bogs, muck holes and gullies, road sides, roads and ditches, the forest, the sea beach, the sewers the lime kiln, the plaster bed, the shell and marl bed—these are a few, but not all of the sources from which the intelligent farmer may procure materials for his manure heap: by a patient industry in collecting materials from the above sources, and by a rigid economy in saving them, much more land may be profitably brought into tillage than has ever heretofore been the case: it is not intended, however, by the above remarks to induce the farmer to forego other profitable labor, but it is intended to show how a farmer who is properly aware of the sources of manure need never himself be idle, nor his cattle in want of useful occupation.

When plants or animals die, their elements spontaneously separate by degrees again, and become viewless: some of them become gases, (*carbonic acid, ammonia, and watery vapor*) and mingle with the atmosphere, some of them (*alkaline salts*) are dissolved in water and washed away, while the remainder (*earthy salts*) are hidden in the soil and become incorporated with it: these changes, which really differ but little from those which are effected by com-

bustion, are called *decompositions*, because the living substance is thus gradually brought back to simpler and simpler forms; at ordinary temperatures the decomposition or "fermentation" of vegetable substances which abound in woody fibre, proceeds very slowly, while under the same circumstances the decomposition or "putrefaction" of animal substances, if not too dry, proceeds very rapidly: this great difference is by Chemists ascribed to the comparative abundance of Nitrogen, (an element which has naturally but little tendency to unite with others,) in the latter. Now when animal matters are mixed with vegetable, the tendency to rapid decomposition which the former naturally possess is, by contact—as fire kindles fire—or leaven leaveneth the lump—communicated to the latter and the whole is changed together; like fire also, or like leaven a little of the one may also transform a great mass of the other: the time required for these decompositions and the temperature which both conduce to them and characterize them varies according to certain conditions, of which the most influential are the proportions in which the materials are present, the openness and moisture of the mass, and the temperature of the surrounding atmosphere: in a general way it may be said, that the more animal matter there is in proportion to the vegetable, and the hotter the external air, while at the same time the heap is moderately compact and moist, the more rapidly will decomposition proceed, and the greater will be the heat developed in the heap.

"Blood heat," or say 100° of Fahrenheit's Thermometer is the most favourable temperature at which the decomposition of manure heaps ought to proceed, and this can generally be maintained pretty evenly by opening or closing up the fermenting heap; covering it with earth or watering it with water is found not to be so good in practice.

To secure the greatest effect of the fermented material, the process ought to be stopped and the manure applied before the whole has become a mere soft, black earthy mass without trace of straw or vegetable structure, or before the temperature has become lowered wholly down again.

If the fermentation of a mixture of straw &c. with cow dung &c. be allowed thus to proceed unheeded it will be gradually losing weight and value; recent manure, it has been proved weighs more than twice the dry food and litter consumed, when half rotten it loses one fourth of its weight, and when quite rotten one half; that is—its elements have disappeared as gases in the air or as liquids in the soil. Now since putrefaction cannot proceed with-

out the formation of such gases and liquids the true secret of economizing manures (at this stage of the business) will be to try to fix or absorb the gases, (ammonia, carbonic acid &c.) and to retain the liquids by some appropriate means.

Among the *fixers* or absorbents which are readily accessible we may mention good black earth, peat or bog mould, plaster, saw dust, charcoal dust, leaf mould, pond mud, chip rubbish, turf, road scrapings &c., the liquids, again, may either be drained off into proper reservoirs and re-applied to the heap or they may be soaked up by a thick coating of black earth or peat muck spread beneath the heap. This decomposition or fermentation of manures is necessary to bring the materials into that form which suits them to become the food of plants and it ought always to be continued uniformly and steadily until it is completed. When it is an object to prevent the fermentation of manure it ought to be piled up in close masses on the shady side of the barn and kept as dry and cool as possible : if we have the materials, and if we can induce them to ferment we can at all times find the means for nourishing a luxuriant crop on our land.

By a full understanding of these simple principles a great deal more manure may be saved in the country than ever has been done heretofore. The same close apprehension of the principle must govern our practice wherever manures are concerned: in the yards much is lost by evaporation and by the winds, which might readily be saved: then also, the melting snow and rain are too often allowed to wash the salts out, or the spouts from the roof of the barn or ill-cut drains are allowed to drench the putrefying mass : much of this loss might be prevented by freely spreading bog earth in the cattle yards in early spring: in the fields also there is often great loss by evaporation or by leaching—a cover or crust of clay or peat or earth will be necessary here as well, and to economize the wash, probably the best way is to lay the heaps on a bottom of clay, peat or marl, and to place them on a high instead of a low part of the field. But besides saving the elements of crops, as indicated above, we may, by composting or mixing various materials, themselves useless with the animal manure or *ferment*, increase our available manure to a very great extent. This is a point to which we cannot give too much importance—the old upland farms of this country cannot be again brought back to fertility except by a much more general attention to mixed manures or composts. The materials for these are sufficiently abundant and accessible to all : by making proper use of them we may at least treble our manure and thereby bring

three times as much land into profitable tillage. Their preparation may go on either in the barn-yard or in the field or by the road sides, and we will again recur to them in a more particular manner.

Having got our manure, how are we to apply it? as a general rule, it ought to be *short* or well rotted before it is used, and as a general rule also, ploughing it under immediately after being delivered and equally spread over the field is more advantageous than using it as top dressing: on the average twenty waggon loads are a dose for an acre of tilled land, and it is better economy by far to apply twenty loads to one acre than ten loads each to two acres: if the land has been ploughed to the depth of say ten inches, it will be sufficient to cover over the manure to the depth of about three or four: all that is required is merely earth enough to cover and absorb the fertilizing materials—after the manure has been thus added to the land, decomposition still goes on, warming the land and yielding those nutritious elements under their proper forms which are required for the luxuriant growth of the crops: but, as formerly observed, heat, air, and moisture to a certain extent being required for fermentation, we must take care not wholly to deprive the manure while in the ground of its chance of access to these important influences. The previous clearing of the soil from weeds, and its preparation by drainage will greatly conduce to the economy of manure—a cold, watery soil, will not only arrest putrefaction, but it will run away with the materials which consitute the chief virtue of the manure. Another point of great importance to the farmer who complains of having but a small supply of manure, is, that he should apply that which he has got to that crop, and in that part of his rotation so that the greatest benefit shall be derived from that which he actually can command. The principle which ought to guide the farmer in determining the rotation or succession of crops is sufficiently simple; all crops remove certain of the elements of the soil, that is, they exhaust the land more or less, but they do it unequally: grain crops, which grow till their seeds are ripe, remove the greatest number of the fertilizing elements of the soil: the English grasses which also ripen their seeds are next in the order of exhaustive power, then the fallow or root crops, while land laid down to pasture rather improves than otherwise. Hence it is obvious that crops of the same kind ought not immediately to succeed each other, but to alternate with others, and the principle holds good, not only for the different classes of crops, but for the different species of the same class, as each class comes round in the general rotation. Thus they will exercise upon the land

actions alternately opposed, and therefore to a certain extent compensatory while each particular element of fertility in the soil is made to go as far as possible.

In breaking up old pasture or mowing ground, therefore, the sod may be regarded as manure enough for an oat crop; next year may come a hoed crop with a good dose, say thirty tons of manure per acre, this will enrich, pulverize and clean the land, and still leave enough of nitrogen and phosphates from the manure for another grain crop of a different kind, say wheat, rye or barley, in the third year: if clover and grass seeds have been sown with last year's grain we will have a good crop of grass in the fourth year; during the fifth and sixth the grass may be cut for hay, provided it has been top-dressed (with say ten tons of manure) in the fifth: in the seventh or fall of the sixth year the land may be again ploughed for another kind of grain crop to be followed by another kind of root crop. For the average light upland soils of this country the above course which affords two doses of manure every seven years may be called an improving one for the land; by striving to get more crops of grain or hay in succession the farm must at length become impoverished, and the farmer too; it is quite possible, however, be it observed to get a succession of almost any kind of crops from good land by high manuring, for a great length of time, but in the ordinary upland of this Province, and with the ordinary supply of manure made on the farm, it is impossible. The practical inference, therefore, is to reserve our manure for the hoed crops chiefly (which can hardly be over manured in fact) and for top-dressing to the grass land, if the grass is to be cut for hay at least and sold off the farm: the importance of green crops in the rotation and their value as a means of increasing our stock of manure can hardly be overstated: the land generally allowed to one cow, say two or three acres may thus readily be brought to nourish three or more, and the manure of well-fed cattle will go much farther in causing the fermentation of straw or bog earth.

The most important source of manure is the barn-yard, seeing that the materials thence derived can supply plants with all the elements which they require except those derived from the atmosphere, but how often have we seen it carelessly or ignorantly planned, so that it very imperfectly fulfilled its purpose:—the barn itself a cold, comfortless shed, and the yard a mere enclosure *sheltered* from the biting blasts of winter by a rail fence, and drained into the nearest brook or highway. The enlightened proprietor and contriver of these arraugements will not hesitate withal to tell you

that this is a poor country for farming, and that "*he cannot fix it up no how.*"

A barn should generally be built upon a side hill, in a dry and sheltered place and made quite tight and secure against the weather; warmth is as food to cattle, and if we can save hay inside by the application of boards or battens outside, the economy is obvious: the main barn should have a southern aspect, and if there be not other shelter-sheds or barns on the east and west sides, there ought to be a yard made open to the south and surrounded by a close fence six feet high and perfectly weather-tight: this fold-yard should be made hollow in the centre sloping gradually to a depth of about two feet: this may be readily done by the plough and spade, and the bottom ought to be rendered water tight if possible, by means of clay &c. If the yard be, say fifty feet square, the sides to a breath of, say ten feet ought to be nearly level: on some one of these sides, the manure or compost heaps may be made up in the spring, and if a slight roof could be fixed in any way so as to shield the whole or part of it from sun and rain it would be economical in the end: the surface water and the water from the roofs ought to be carefully led away so as to prevent the leaching of the manure, for liquid manure may be so diluted as to become almost worthless; if drains from the kitchen sink could be made to pass through the vault and then to end in the main yard, very much valuable materials might in this way be economized: but if from any cause the liquid materials should be so abundant as to drench the solid ones in the yard there ought to be drains contrived to carry away the moisture before it overflows, and sinks or catchpools to receive the liquid portions which are often quite as valuable as the solid.

This barn-yard should be laid with a foot of half dried peat or muck or saw-dust in August or September, after that let the droppings of the cattle accumulate within it, let all garbage from the house, all soot, sweepings and lime rubbish, all litter, potato tops, raspberry bushes, ferns, rushes and weeds from the fields, the refuse of gardens and of the cider press, all oat husks, bran, corncobs, and buckwheat chaff, muck from the swamps, leaves and soil from the forest and the roads, pond-weed from the ditches, sea weed and eel-grass from the shore, &c. be thrown in as they come to hand.

The cattle will, of course, remain there most of the winter and feed out of racks or sheds appropriated to them : during the winter season this yard should also be littered twice a week with straw, and if convenient, sprinkled occasionally with plaster : in spring it

may be cleaned out, and its contents made into heaps three or four feet high, with or without plaster, and brought to a wholesome state of fermentation before laying it on the land.

In addition to the main yard or general compost ground above described, there ought to be either a stone cellar under the cattle stalls which is on the whole the best, or a long, narrow and shallow pit about two feet deep covered above with a roof and puddled or lined in the bottom in such a way as to prevent leakage, and placed so as to receive readily the winters' dung and urine from the stables : the bottom of this cellar or pit should be laid with bog earth, loam or marl or other absorbent and occasionally also it should be sprinkled with plaster.

The rich manure of this cellar or shed may be incorporated in heaps with that from the general compost yard in the proportions of one of the forms to three of the latter and the whole thus brought into that state of admixture and decay which renders it most capable of sustaining the productiveness of the soil : a few weeks before the manure is required for the root crops it will be time enough to induce active fermentation in the heaps : after a time these heaps ought to be turned over once or twice so as to secure the full influence of the air upon the fermenting materials and effect the thorough incorporation of the whole: after this it may be hauled on to the land, and, in the case of turnips it is well to sow the seed with as little delay as possible after the manure has been turned into the soil.

Having now glanced at the general principles which ought to guide the farmer in collecting, preparing and applying the elements of manures which in fact are the elements of crops, we may proceed to speak of sundry manures in detail and more particularly of such as we conceive to be within the reach of the majority of farmers in this Province.

Stable Manure has been called the farmers sheet anchor and is the first and best of fertilizers: not only does it serve directly as food for crops but it disposes other substances to ferment and resolve into the soluble nutriment of growing plants, by which process death and putrefaction are transformed into life and luxuriance.

This useful material consists of the dung of horses, cattle and swine mixed with the litter, coarse hay, and weeds all trampled, moistened with urine and more or less decomposed : It is made up of the products and remains of every kind of crop, and therefore contains those elements from which every kind of crop may be fed and reconstructed ; chemically its composition is as complex as

that of the crop itself, but carbon, water and silica always constitute its *bulkiest* portion: both its composition and its power or value is, however, extremely variable: these depend partly in the proportion of animal and vegetable matter, partly on the kind, the condition and the food of the stock, partly on the time which has elapsed since it was dropped, and greatly according as the liquids and gases evolved from it, have been allowed prematurely to escape or not.

The indifference so generally shown throughout the Province to the collection, preparation and economy of these substances is one of the great causes of the impoverished condition of the farms: in this direction therefore reform must begin, *for otherwise there is no hope:* without stable manure which is the raw material of crops, no crops can be manufactured, and the fermentable materials cannot be fermented. It is rather surprising that although stable manure has been almost the sole dependance of the farmers in this Province for the improvement of their land there should have been at the same time such utter carelessness in collecting and preserving it in its most available conditlon: the practice of throwing it out from the barn window from day to day so as to expose it to snow and rain, sun and wind cannot be too strongly reprobated, for it is easy to see that great part of its value is thus destroyed, and little remains but a short straw, which may be again culled over by cold, ill-fed cattle who seem thankful even for that bite: in England it is generally admitted now that stall or shed—feeding and soiling cattle is the most profitable in every way, one cow may thus be made to produce about 9 tons of solid dung per annum, but it may be some time before we can get labour cheap enough to adopt this practice in New Brunswick: there is, however, one point which we consider to be well worthy of attention by all who are anxious to economize in this direction; it is a frequent practice in this country at present to enclose a small piece of ground in a field near the road, and then to yard the cows from milking time in the evening until the next morning; it is quite common to see from 5 to 20 head of cattle thus brought together every night during the summer season, while the valuable manure which they make is left exposed to sun and rain until it becomes almost or quite worthless. This wasteful practice of manuring the atmosphere as well as the soil ought at once to bo done away with, and in lieu thereof we would recommend either that the cattle should be put up in a well-littered and ventilated stable, or in the barn yard, giving them a bedding of straw, peat leaves, or even saw dust to absorb the urine

&c., one ton of dry straw may thus by skilful treatment be converted into three tons of manure. Where the premises are sufficiently commodious the different kinds of manure should be collected and kept apart until it is considered proper to mix them together, and the greatest care should always be taken to prevent the escape of the strong smelling ammoniacal gas, upon which not only the fermentative but the fertilizing virtue of the manure mainly depends: this may be done by using a cover or fixer as already suggested, by treading or beating the mass compactly together, or by saving the urine, and keeping it apart from the solid dung. If we save the mass from washing by rain or snow water we will likewise economize not only ammonia but many other valuable ingredients:—another important object should be to prevent the commencement of fermentation until near the time when the manure is to be applied to the soil. By covering with sods or bog earth, treading and pressing so as to prevent the access of air, and by keeping the whole cool and dry we may easily effect this, while by forking, turning, evenly mixing and moistening it (with urine if necessary) during warm weather we readily induce and regulate the putrefactive fermentation : when once begun in the heaps let it proceed steadily, and then, after one or two turnings, apply it to the land in the spring or autumn ensuing, before the fermentation is completed, so that the latter part of the process may take place in the soil.

Long or partially fermented dung is best for clay lands, because the straw helps to open their texture : in our climate, when used on light soils it is apt to become too dry, and to stop fermenting altogether : *Short* or well rotted dung is best for light land, and particularly for root crops which germinate quickly and require a full supply of food from the beginning.

The *Hog Pen* is an important source of manure for the compost yard : from one hog properly fed and littered we may make more than two waggon loads in a year: by using bog earth for litter and throwing in a handful of corn occasionally they will incorporate the bog earth with their droppings so as to give rise to a most valuable compost: hogs dung ought always to be mixed with other manures. Where many *sheep, fowls, and pigeons* are kept, much valuable matter also accumulates, which ought to be saved: it will prove nearly as useful as guano. Few farmers are aware of the value of the *urine* that is suffered to be wasted on the farm : in the course of a year. Weight for weight, the urine of animals may be considered as powerful as their solid excrements, and pains ought to be taken to save every drop of it. One cow passes about 1000

lbs. of urine in a year and this is considered in Flanders to be worth £2, and to be a full manuring for one acre of land. The urine of man and of the horse is also known to have a greater fertilizing power than that of the cow. Liebig says that the urine of one man for one year will manure an acre of land, and that a pound of urine contains the elements necessary for one pound of grain. Much greater economy ought therefore to be practised in regard to this substance which is so rich both in nitrogen and phosphates. By the proper use of mould or bog earth, much of it may be saved, while the peat itself is made to ferment and decompose thereby :- a pit capable of containing twenty or thirty loads of bog earth may be so arranged as to receive all the urine of the stables. Another way is to build a proper reservoir to collect it, and in which it is to be allowed to ferment for a time, then mixed with water and applied on grass or other land; or in the liquid form it may be applied to the manure or compost heaps so as to promote their fermentation: on this subject, Loudon says (Encyclopædia of Agriculture p. 341) "We would strongly recommend the practice of saving urine in tanks to the British farmer, and not to the farmer only but to every cottager who keeps a cow or pig; nay to the cottager who is without these comforts, but who has a garden, in which he could turn the great accession of manure so acquired to due account. Let him sink five tubs or large earthen vessels in the ground and let the contents of the portable receiver of his water closet, all the water used for washing in the house, soap suds, slops and fermentable offals of every description during a week be carried into one of those tubs: and if not full on the Saturday night, let it be filled up with water of any kind, well stirred up, the lid replaced and the whole left for a week. Begin on the Monday morning with another tub, and when after five weeks the whole five are filled, empty the first at the roots of a growing crop and refill. Or use two large tubs, and continue filling one for a month, and at the end of a month empty the first, and so on."

The *Drainings of the Dung-heap* ought never to be allowed to be lost: they are of very variable composition, but are often more valuable than the urine alone—they are liquid manure of the best kind. By the use of bog earth to absorb them or by means of properly constructed drains it will be easy to economize the whole.

Night-soil is another most important manure, one bushel of it when dried and powdered is said to be equal to a load of stable manure—the reason of the difference is, that the food of man is flesh and the flour of the grain, which is rich in nitrogen and phos-

phoric acid, while that of cattle and their litter consists chiefly of stalks and leaves. Weight for weight, it is therefore the most fertilizing of all applications to the land, and it seems but poor economy to be sending to Peru for Guano, while we are recklessly wasteful of a fertilizer which is quite as valuable, and within our reach. Human soil may be carried off by a sewer from the kitchen sink which passes through the vault to any proper reservoir lined with muck, and prepared to receive it: or, by a little forethought, it might easily be removed in a much less offensive and inconvenient way than it is done at present. Get for instance a tight box of deal, say 4 feet long and 3 wide and 2 1-2 high, secure it to a pair of rough, strong runners in the shape of a common wood sled, with a tongue and roller, and place the whole under the seat of the building: as soon as this is conveniently full, throw in some charcoal dust, bog earth, marl, plaster, or saw-dust, or a combination of two or more of these, which will destroy the smell: then attach the horses or oxen and remove the whole to a proper place, empty it, and return it again as before. The night soil is best used in a powdered state, and for this purpose it is only necessary to spread it on the ground in layers of 3 inches thick, and cover with about half an inch of charcoal dust and plaster or dry bog earth, or charred peat, or ashes, or mould or charred clay; in a short time the whole mass will be dry and can be reduced to a fine mould either by running a roller over it, or by beating it with the back of a shovel. It will then have lost its smell and may be used as a compost with the seed for a drill crop, or as a top dressing at the last harrowing, at the rate of ten bushels per acre.

In regard to the general treatment of home manure it is to be observed that in point of economy this valuable material should rarely if ever be used alone, but rather incorporated with some other materials to which the fermentative tendency may be communicated; of these the most generally accessible is *Peat or Bog-earth*. This is a substance which of itself is inert and useless if not positively injurious to land, but which by skill may be rendered soluble and nutritive to crops. Mixtures of Bog-earth or saw-dust with other materials capable of quickening and decomposing it come under the general head of composts or mixed manures, and may be used advantageously on any but peaty soils. Bog occurs either on the upland where it is dry, more or less mixed with bits of decayed wood and earthy matter, or on low meadow lands and contains many fibrous roots and stems of coarse grasses of subaquatic plants: both of the above are black in colour. It also

occurs in swamps and spruce barrens where it consists almost wholly of gray, wet and spongy or slimy moss.

These varieties all consist of vegetable substance, which have decomposed, though only to a limited extent, by the chilling influence of the climate, and the abundance of stagnant water. The term *Peat* is applied to the denser varieties, and *Muck* to those which are loose: the loose earthy kinds differ also in quality: the best kinds are those which have been chiefly formed from hard wood, the next from soft wood. *Pond mud* is another variety with less vegetable and more earthy matter.

Peat earth, we have said is generally accessible in the Province, and in fact there are facilities for procuring it which are somewhat peculiar here: that is, it may always be dug and dried in the summer, and by means of the snow it may always be readily hauled and brought home in sleds in winter to the cattle yard or shed, or on to the field: in spots which could never be reached by wheels it may become accessible on runners; farmers who refuse to get out the bog stuff in summer, and to haul it in winter are justly chargeable with neglect of their best interests: if it were once generally understood that this material contains many of the best elements of barn yard manure, that in fact a cord of peat contains as much useful material as the manure of a cow for three months, that it is readily fermentable, and that nature peculiarly favors our designs for getting at it to procure them, we believe there will be no lack of either of will or of ways to procure it: if there be a prejudice against peat as an element of composts, it can only have arisen from inadequte knowledge of its virtues, and if it has hitherto [illegible] has been from an improper macufacture of the compost, mostly from an insufficient fermentation of the mass.

Having looked out a convenient place to procure this useful material, the first step is to dry it: fresh peat contains about 75 per cent. of water, and even when called dry it still holds about 10 per cent.: this drying may be effected in part by draining or trenching the ground where it occurs, but more easily by digging it out at a convenient season, either in the summer or winter, piling it into heaps, and leaving it for some months or even a whole season to the full influence of light, air and moisture; by these agencies it crumbles to powder and parts with much of the sour or antiseptic principles which it originally had: having got it thoroughly dry and crumbled, the next step is to cause it to rot or decay and become converted into the soluble forms required for the food of plants. There are various ways of doing this, but they all resolve themselves

into composting with materials rich in Alkali. This Alkali, whether it be Ammonia, Potash, Soda or Lime soon disposes the peat earth to fermentation and reduces it to a state of great efficiency as a fertilizer. Ammonia is most accessible in urine or fresh stable manure, Potash and Soda are the characteristic constituents of Ashes, and Lime in any quantity may be easily procured.

In warm weather one part of animal substance will cause ten parts of dry peat to ferment, or one hundred pounds of flesh properly cut up and mixed will decompose about one thousand pounds of peat, and a dead horse will decompose five or six cords of it: a barrel of fish or fish refuse, or a hogshead of urine will decompose a cord: from a half to a fourth of fresh stable manure will be sufficient to induce heating and decomposition, and produce a compost which is said to be as efficacious as an equal weight of unmixed farm yard manure, in enriching the land for a root crop, and one-fourth or less of sea weed will serve the same purpose, so that when there principles are fairly understood there need be no difficulty in procuring abundant means of fertility for the land.

Peat earth may likewise be decomposed by wood ashes either leached or unleached: it takes about four bushels of the former, and twice as much of the latter to induce fermentation in one cord of peat. When a bushel of lime is added to a load of wet muck, the water of the peat will slack the lime, decomposition will be set up and the whole brought into a useful form for top dressing young clover, &c.; a better way is to dissolve a bushel of salt in water, and to mix it with ten bushels of lime until it is thoroughly slacked and moistened: let the mass remain for a week more, and then be added to three cords of peat, shovelled over for about six weeks, and then applied to the soil. By mixing salt with lime, soda and the chloride of lime are formed, both of which are very excellent fertilizers. On the whole, however, it will be more generally advantageous to combine the above materials in the same compost: thus we may mix one load of stable manure with three of bog earth and three bushels of ashes or quick lime and salt. Pile the whole up into heaps and turn over once or twice during the season—such a mixture is considered to be equal to barn manure, load for load upon worn out land.

When compost heaps of peat and green manures, &c., are to be made in the field a layer of the muck and a layer of the manure ought to be laid down parallel to each other, and distant five or six feet: let there then be laid down between the two a layer of muck ten or twelve inches thick, then a layer of lime or ashes, then a

layer of manure in proper proportion, then another layer of muck and so on always covering with the latter; if it has not been too closely packed it will take on a good heat in a week or ten days, and in six or eight weeks, more or less according to the weather, it will be ripe and ready for the land: it may however, be advantageously turned over again before using.—Peat earth or fine saw dust, ought *always* to be kept on hand at the Farm: they might be kept for absorbing liquid matters in the stable, the dung cellar, the barn yard, and the hog, sheep and cattle pens, where they will not only save the liquid manure, but will themselves become soluble and fertilizing: after stable manure they are the most available fertilizers which our Farmers can command, and by using them skilfully they may soon reclaim their exhausted lands, and begin again, with greater propriety, to sell their hay and straw off the Farm.

A good compost sufficient for an acre of ground may be made of forty bushels of mould from the woods, five bushels of ashes, five bushels of bone dust, and thirty gallons of urine, when this is mixed in heaps and shovelled over it becomes earnestly fertilizing.

The following is said on good authority, to be superior even to guano:—

Peat earth or saw-dust,	40 bushels
Bone-dust,	7 do.
Quick Lime,	20 do.
Coal-tar,	20 gallons.
Common Salt,	1½ cwt.
Epsom do.	1½ do.
Glanbor's do.	1 do.

The whole to be mixed in a heap and allowed to heat or ferment.

Another compost may be made of a mixture of lime and ashes with weeds, twigs, leaves, potato haulms, brakes, raspberry bushes, nettles, chip rubbish, and other refuse vegetable matters. This compost will necessarily vary very much in composition: if lime be scarce and woody fibre abundant in it, its value will be but small: another common compost may be made of farm yard manure, lime, soot, scrapings of roads, sods, sweeping of ditches, pools or ponds, hillocks from old pastures, and all kinds of rough and waste mixtures of earthy, vegetable matters: the lime should be mixed with the earth in a separate heap, and added in layers to the other from time to time. These heaps may be formed in the yard, the field or by the road sides: the great principle is to let nothing be lost, and the more of these compost heaps "and dirt pies" that are to be seen in any neighbourhood the more favorably would we augur of the industry, intelligence, thrift and profits of the Farmer.

We need hardly point out the value of *Salt-Marsh Mud* to farmers on the sea-board: we are happy to say that many of the farmers along the shores of the Bay of Fundy are actually engaged in renovating their worn out uplands by the mud of the marshes. On the large scale, the enterprising men of Westmorland are covering waste bog or marsh land by letting in the muddy tide waters of the Bay, and leaving the sediment or warp, not to improve the old, but absolutely to make new land; the Toler Canal and the Botsford Canal are perhaps the most signal and successful monuments of Agricultural industry in New Brunswick: many thousand acres of swamp and water have thus been redeemed and converted into valuable hay land.

Wood Ashes contain a great many of the necessary elements of fertility, (but of course can only supply the ash, or mineral portion of any crop:) even when leached they must be regarded as useful additions to the soil; German and even English farmers often haul them from a distance of twenty miles, and if they are to be had either leached or unleached they ought to be carefully saved for the land. The composition of any given heap of wood ashes is very variable, but always, even when leached they contain a considerable proportion of the phosphates which are so essential for grain crops and when mixed with bone dust are found nearly to double its effect. We have already spoken of them as a useful ingredient in composts and we may farther add that to land already in good heart a compound of bone dust and wood ashes will always be extremely beneficial: eight bushels of bone-dust and twenty-four of ashes mixed and moistened with urine for two or three months form an excellent compost for an acre of Turnips.

Charcoal is also an excellent article for the farmer and there is no excuse but ignorance to be offered for his neglect of it. Like peat it consists of vegetable substance partially decomposed but still rich in the elements of productiveness.

It is admirably fitted to absorb and retain the gases of fermenting manures, and when mixed in a state of powder with the soil to decay and yield them up again, as well as its own substance to the crops. After the coal is burned the large lumps can be readily broken with an axe or maul, and then reduced to powder on the barn floor by passing a heavy roller over it: it may be used advantageously for any crop and on any soil at the rate of 40 bushels to an acre : or it may be used with some of the composts.

Soot is also a useful fertilizer: and when mixed with salt it is said to be most especially favourable to carrots, potatoes or wheat.

Farmers who live near the sea should never neglect the valuable resource which they have in *Sea-weeds*. Scotch and Irish farmers spare no pains in collecting this material, and after a storm they sometimes pass the night in hauling it beyond the reach of the waves. Sea weed contains more nitrogen and saline matter than land plants and ferments more readily: its application to land is therefore greatly calculated to increase its productiveness for a season. It may be ploughed in at once, or it may be used as a top dressing to grass lands, or it may be advantageously composted with stable manure, earth, lime, peat moss or marl, turning over the mixture once or twice before using it. The ash of sea weed makes an excellent top-dressing, but it is not so likely to be used as the plant itself in the green or dry state.

Eel grass or sea wrack when green makes a very good manure for clay soil, or it may be used as litter in the stables and hog pens: after it has become wind dried it may be made to ferment in the compost heap, or it may be burnt and its ashes added to compost heaps.

Where *Fish*, or refuse fish or fish garbage can be had they can be turned to good account by the farmer, although, by reason of their rapid decomposition their effects on the land are rather transient, and they are said to be rather injurious to the land if ploughed in the fresh condition: they should therefore always be composted with peat or muck and soil, or with marl or wood-ashes and seaweed. These mixtures are known to be excellent for roots or grains.

Green Manures or the ploughing under of growing crops may be mentioned among the means of renovating our light and worn-out land: leafy and juicy plants like clover or buckwheat, are generally preferred for this purpose: the practise of ploughing crops under has in some cases in this Province been attended with the very best effects: but it will probably be some time before our settlers can be persuaded to forego a crop for the season on this account: in some cases, however, it may be the most convenient way of renovating land when farm yard manure is scarce and expensive: still it is only a temporary expedient, because no young, leafy plants can supply to the soil, all those elements (nitrogen and phosphoric acid) which are especially required by grain crops. When clover is to be used, it is sown with the green crops of the previous year and ploughed under late in the succeeding spring before the plant has blossomed: or the second growth of clover may be ploughed in the fall. When buckwheat is to be used in this way, it must

be sown separately and ploughed in once or perhaps even twice in the same season before the stalks have begun to grow hard and woody: it is asserted by some that these green, leafy plants derive nearly three-fourths of all their substance from the atmosphere so that, if so, the theory of green manures is simple enough.

When the farmer can afford to buy any Portable manures, *Bone-dust* and *Guano* are probably the best which he can select. There will always be a saving with them in the cost of carriage and delivery on the land. One drawback is however their liability to be adulterated. This is often most unscrupulously done even to the extent of 80 or 90 per cent, and the farmer ought to be fully upon his guard against imposition. Our object in the present report is rather to point out the way to economize the manure which the farmer has at his command than to detail the various ways in which money may be laid out on those of whose value he is ignorant. Bone-dust consists partly of animal matter and partly of that kind of mineral matter which is absolutely necessary for cereal crops and which naturally occurs in very small quantity in the soil: its active principles are most probably nitrogen and phosphoric acid. Its price in Boston last summer was two shillings and six pence per bushel, and probably it could hardly be sold under four or five shillings in the interior of this Province: if land is otherwise in good condition eight bushels are said to go as far as thirty tons of manure for a root crop, but unless the bone-dust could be had proportionally lower than the manure it will not probably meet with a general sale in the country. We understand that it is intended to erect one or two bone-mills in this Province: they are deserving of every encouragement and this Society or the Legislature might very properly offer some pecuniary aid to the establishment of an efficient bone mill in some central place to be hereafter determined. Farmers might also now begin to collect bones which might hereafter be ground at such mills.

Bone-dust should be drilled in with the seed for a green crop at the rate of seven or eight bushels per acre, or sowed as a top-dressing with any cereal crop at the rate of ten bushels per acre, before the last harrowing: they may also be made to go farther by being composted with wood-ashes, sheep's dung, dried night soil, &c. Bones answer best on light dry soils, but do not wholly replace the bulkier stable manure.

The use of the drill in the application of bone-dust and all such manures as will admit of it is always to be recommended on the score of efficiency and economy.

We have now directed the attention of those who are interested in the subject of manures to the most accessible of those substances which, being themselves of vegetable or animal origin, are, on that account pre-eminently qualified to become the nourishment of new generations of plants and animals, and we have endeavoured to treat of them with as few scientific phrases and theoretical views as could well be employed in any attempt to inculcate correct principles: it has been deemed that the clear apprehension of a few leading principles might be of more service than the perusal of many pages of what is called *practical details.*

Crops require to be fed as certainly as children do: manures are the food of crops: whatever has been part of a living plant or animal may after decomposition again become food for growing plants or animals: render back to the field an equivalent for what you have taken in the crop: it is much easier to keep land in condition than to bring it up to condition: gather up the fragments, let nothing be lost: save your manure for the crops, waste not its virtues on the river or the atmosphere: without manure no grain crop, without cattle no manure, without green crops no cattle:—these are a few short rules to guide the practice of farmers, and if they become thoroughly incorporated in the soil of their minds will prove most potent fertilizers.

We have still to make a few observations on the use of some substances which, though they may never themselves have formed part of a living plant or animal, yet are qualified to do so and likewise greatly to aid the salutary transformation and decomposition of such refuse and refractory matters as only await their stimulating influence.

Lime is a substance which has been long known for its beneficial effects upon land, and may be added with advantage to most of our soils: Analysis has shown that it is generally deficient in the soils of New England and New Brunswick, and that such is the case even in the limestone districts.

Its application in this Province will, however, be chiefly determined by its price when delivered at any given place, and by the means and intelligence of the farmer. Limestone is a natural compound of lime and carbonic acid, though it generally contains few other substances in combination.

Quick lime is procured by burning off the carbonic acid in a kiln, by which process one ton of limestone is reduced to about eleven hundred weight of lime. Water-slacked lime consists of lime in combination with water, every ton of lime being thus made

to combine with about six hundred weight of water in the process of slacking, and which brings it to that state of powder which best fits it for the uses of the farmer. Air-slacked lime is a compound of lime with water and carbonic acid derived from the atmosphere, in fact, a sort of powdery mixture of mild lime and slacked lime. Hot lime and mild lime act much in the same way upon land, only the effect of the former is more rapid and energetic.

Lime has little or no action on vegetable or animal substances as long as they are dry, but if they be in a moist or fermenting condition, lime promotes decomposition and disposes the whole to a more rapid and thorough decay, it favours at the same time the production of those materials from the air, the soil (silica, potash and the phosphates) and the decaying mass which especially sustain the fertility of the land. Lime also helps to kill moss in land, to destroy insects, to neutralize "sourness," and being itself slowly dissolved becomes a direct nourisher of plants, into whose composition it always enters, though not in very large quantity: it is only found in the ash.

It is most important for the farmer to know that lime of itself is not an important manure, but that its value mainly depends upon its power to liberate materials locked up in the soil itself, and to dispose dead or inert vegetable matter to decay and become fit for food to crops: if land be destitute of vegetable matter lime will be of no use, if it be poor in vegetable matter or manure, lime will hasten the conversion and removal of them under a soluble form, but if it be applied on land which already contains a fair proportion of these it will greatly enhance both the quality of the land and the crop. With the liberal use of manure or compost there need be little fear of over-liming.

For dry and light soils less lime will be required than on wet and heavy land, but from five to ten bushels of quicklime per acre added annually to the arable land of this Country will be found to be of great permanent advantage, and if it is wished to apply it only once in the rotation it must still be done at the above rate.

Lime may be applied in the form of compost as has been before explained, and if it is thought advisable to apply it as top dressing to meadow land, it is good practice to haul and spread it on the meadow in the fall when the snow is two or three inches deep.

There are some other substances rich in lime and which act upon the same principle which to many farmers may prove accessible where lime is not: these are

1*st*. *Shells*, which when burnt are as good as lime.

2*nd. Sea sand, Shell sand and Mud,* which form an excellent top dressing.

3*rd. Mussel mud,* which is good either to be ploughed in while moist or when composted with manure, &c. These generally contain animal as well as mineral matter.

4*th. Marl,* which is a mixture of mild, powdery lime and clay, with more or less of vegetable or animal matter, and is found commonly enough along the sea board of this Province: sometimes the lime has been derived from broken shells, at others, from the wash of rocks which contained lime: the proportion of lime to clay varies very much from one place to another, but the presence of the latter renders it always well fitted to improve both sandy and peaty soils. It is generally best to lay out the marl in heaps in the field and to let it lie over a season, after which it may be spread on grass, stubble or fallow land with great advantage.

Plaster contains about one-third of its weight of lime, but not in the same combination as in limestone. When burnt it consists of 42 per cent. of lime, and 58 per cent. of Sulphuric acid or oil of vitriol, which latter also enters into the composition of crops. When the farmer can afford it he ought never to be without a supply of Plaster.

It serves directly to nourish crops, (it occurs in their ashes) and to fix useful matters from the air, the dung, and the soil. Like lime also it accelerates the conversion of moist vegetable matter, and, when the latter has been small in quantity, may occasionally seem to cause a sort of exhaustion of the land. At the rate of one or two bushels per acre, it would be a valuable application to the dry soils of the interior, and would tell especially on young wheat seeded down for clover, &c.

It may always be advantageously used to fix or absorb the volatile gases of manure heaps and of night soil, and if sprinkled on the floor of the stables occasionally, would not only purify the air, but economize much of the liquid manure.

It is most earnestly desired by this Committee, that the attention of farmers should now at once be directed to the intelligent economy and increase of manures: *this must lie at the bottom of all improvement in our systems of husbandry:* he who goes on in the old slovenly way, wasting the food of his crops, and grumbling because the land will not yield him a profitable return had better sell his farm and vanish into the States. As soon as the crop is in the ground in the Spring, the farmer should begin collecting materials for a compost heap for the next year's use, and he should set about it

with as much zeal *as if his future crop—and subsistence depended upon that alone.*

By all competent observers, the character of the Farmer as an intelligent and successful cultivator of the soil will ever be readily inferred from the appearance of his barn yard and manure heap.

All of which is respectfully submitted by

J. ROBB, M. D., Chairman.
H. J. HANSARD.
WM. WATTS.

Fredericton, March, 1850.

The Committee appointed to Report upon the best modes adapted to the circumstances of the Country for raising Turnips, Mangold Wurzel, Carrots, and Parsnips, have attended to that duty, and beg leave respectfully to submit the following

REPORT.

In taking up the subject of the cultivation of Root Crops, there are several very important considerations, to which your Committee would beg leave to call the Farmer's careful attention.

First, the importance of the Root Crop as regards its own intrinsic value.

Second, as a valuable crop, in connection with others, for restoring, old wornout land: and Third, its adaptation to the climate and soil of New Brunswick.

First:—The great importance of the Root Crop in this Province has been almost entirely overlooked; and its adaptation for stock has scarcely ever been tried. The extensive cultivation of the Root Crop, both in England and Scotland, is of recent date—but the benefits from it have been so great, that the Turnip Crop alone, is second only to the cereal crops, and equal in value to all the others put together.

If then the value of this crop is so highly estimated, and thought of such vast importance, in a country so celebrated for agricultural knowledge, may it not be taken for granted that the like beneficial results, would follow with us—and that we may safely follow its example? Unfortunately the Farmers of this Province heretofore, have had their eye only fixed, upon what they could get for their Bushel of Roots, in the market, without ever turning their mind to the improvement of their land or stock: thus when they could obtain 1s 6d. or 2s. for a bushel of Turnips or Carrots, they would continue to raise a few from year to year; but so soon as the market was supplied and the price reduced, the cultivation of the crop was considered useless. The committee would therefore, most seriously call the attention of our Farmers, to the great benefits to be derived from a more extensive cultivation of Roots as feed for stock; the saving in hay alone would amply compensate him if nothing else: but stock of all kinds are vastly benefitted—milk increased—the health of the animal improved—and, instead of bringing inferior beef to market, which if he sell at all must be at a low price, he would bring such meat as would ensure him a ready market, and a remunerating sum.

It is a fact well ascertained that an ox fed on hay, with a liberal supply of Roots until five years old, will bring more money in market, than he would have brought at six years old, had he been fed only on hay, however plentifully supplied: and there isnot a doubt, but that there is more value obtained from two acres of land well cultivated in root crop, than from three or four acres in any other article for food for cattle.

Taking these things into consideration your Committee would recommend that every Farmer should devote a part of his tillage land at once to green crop, and are of opinion that one-fifth of the land under plough should every year be devoted to the Root crop, —that is, he who ploughs five acres, should have one acre in turnips, or carrots, or mangold-wurzle, or a part of the acre in each, and the same proportion should be carried out, however large the farm under cultivation.

We come now, in the second place, to the consideration of the Root Crop, as one of incalculable value (in connection with other crops,) for restoring old worn out land.

It has become an important enquiry with our Farmers, how they shall fertilize their land, that has become exhausted by taking off large amounts of produce from year to year for sale, however remote from towns from which they might obtain manure—this is an important query and one in which they are highly interested, in having answered correctly. It is absolutely certain that Farmers cannot annually rob their farms of large crops of Grass, Roots and Grain, without either supplying manure to the soil, or losing rapidly in fertility We shall briefly advert to some of the most obvious resources for sustaining and improving the productiveness of the soil.

With the intelligent and systematic Farmer a proper rotation of crops is adopted, which he has found by experience to be best suited to the locality and markets; what is meant by this, is a regular succession of crops in the same field, through a series of years, which at their end is again commenced; they are so arranged that no two grain crops succeed each other, but are separated by Roots, Grain and Grass: this system prevents the necessity of the soil yielding similar ingredients through two or more successive seasons, which it will seldom do to so profitable an extent as to justify a second crop; the great object of this method is to give the land rest when allowed to lie in meadow, or refreshment when clover or other fertilizing crops are ploughed in to the soil for manure, but it is evident at a single glance that this system does

not contain all that is neeessary for sustaining the full measure of fertility of land subject to close cropping; but that it is neeessary to return to the soil, manure, straw and offal, of every kind and also to carry on in eonnection a suceession of crops.

For this purpose your committee would recommend the following Rotation or eight course system; we will suppose it to be sod land of inferior quality, this ought to be ploughed late in the fall in furrows from six to eight inches deep-laid flat and rolled, the first crop oats, seeded thick, harrowed and rolled; as soon as the oats are off, plough in the stubble.

Seeond crop Potatoes, manured in the Drill with at least ten cords manure to the acre.

Third crop, Wheat.

Fourth crop Turnips, Carrots, or Mangold-wurtzel, or a part of each, manured and planted in the Drill, with at least the same quantity of manure as for the potatoes.

Fifth Crop, Barley or Rye, and seeded down to Timothy and Clover.

Sixth, Seventh, and Eighth crops, Hay, and at the expiration of the eighth crop, the land must be again broken up and the same or some other course commenced: when it is thought advisable, Indian Corn may take the plaee of the Roots as the fourth erop, or Beans or Peas that of Wheat, as the third crop. The advantage of this course is, it will be perceived, that the Farmer gets eight crops, and all remunerating ones, for two years manure, and in the end his land is in a much better state, than when he commeneed.

We come to consider the Root crop when the manure is plentiful, and the objeet a prize crop of Roots. The first great point is the quality of the Soil: though it must be remembered that we are not now considering potatoes at all, but turnips, carrots, &c., the Farmer will best understand us, when we say that the land which is good for Indian Corn, is also good for Root crops, or may be made so. The land best adapted for the root crop, is strong loamy soil: it should be ploughed in the fall, and ploughed deep, and if subsoil ploughed, the better. The first operation in the spring, is to harrow the soil thoroughly: it will help to pulverize the land, and enable the cart to get on the land the easier with the manure—about fifteen cords of manure (or about thirty wagon loads) should be carted on, and spread out evenly on the surface, then the land should again be ploughed, harrowed, and again cross-ploughed; it should be borne in mind, that it is of great importance that the soil be finely broken up, pulverized and rendered mellow, free from

clods of every kind: it will be necessary to defer the last harrowing until ready to sow the seed, and a very great deal depends, upon getting in the seed, whilst the ground is fresh and moist; when quite ready to sow, harrow the land well, and get in the seed as quickly as possible; the drills for parsnips, beets, carrots, mangold-wurzle, and turnips (in field culture should be at least twenty four inches apart, to give room for the use of the cultivator, and for cleansing the crop, and loosening the soil, if a seed sower can be obtained much time is saved by its use in getting in small seeds, and the whole work of opening the drills, sowing the seed, and covering the same, is performed at the same time; but if this is not to be had, each Farmer must use his own ingenuity to devise the most safe and expeditious method. A line stretched out, and drills opened along the same, two inches deep, with the corner of a common hoe is a method adopted by some: others open the drill with the cultivator by taking out all the teeth but the two hind ones, setting it a proper distance apart, with this and the use of a horse, two drills are opened at once, and an acre of ground is gone over in a short time; the Farmers great object should be, to save time, always bearing in mind that every operation must be well done. All these small seeds, with the exception of Turnips should be got in as soon in the spring as the ground is dry, but if they are in by the first of June there is every prospect of success: the proper depth to cover small seeds is one inch: the quantity of seeds for an acre of carrots is 5lbs, the same for Beets and Mangold-wurzle 2lbs. for Parsnips, and 4 for Swedish turnips.

It often happens that the farmer may not find it convenient to put in all his seeds, in one day or even week; in that case we would advise the following rule to be observed, the first in order in the ground to be the Parsnip, next Carrot, then Beet, and last Mangold-wurzel.

Swedish Turnip is the last in order of the seeds sown in this country, and ought never to be sown earlier than the 1st of June, or later than the 25th; we would recommend the 10th as the correct one, and we think 4 lbs. of seed the most desirable quantity to the acre, so as to feed the fly and ensure the crop. All these small seeds are benefitted by being sprouted in rich earth well turned up for ten days before sown, or they may be soaked five days in soft water for Carrots, Beets, Parsnips, and Mangold-Wurzel and eight hours for Turnips; this we think benefical in all countries, but more especially this, in the weather here is generally hot and dry, which would in a degree prevent the dry seeds from getting an early start

and healthy growth in their infancy, which is necessary for a good crop. The seeds when sown in drills by hand (and not by the sower) may be covered with the back of a common rake, and a large amount of ground can be gone over in a day by this method with a little practice; tho after cultivation of all the Root Crops enumerated is nearly the same. Great attention is required to *thin the crop in time;* as soon as the plants can be clearly distinguished through the whole length of the drills, they should be gone over with a hoe, and the weeds in the drills cut out, and when the plants stand very thick, a part of them removed. As soon as the Turnips are well in the rough leaf, they also should be attended to the same, and as soon as the weeds begin to reappear the Cultivator should then be used between the drills to loosen tho soil, and keep them down; in about ten days later, the whole should again be gone over, and tho plants thinned to two inches apart, and the Cultivator used again; in fifteen days later they should get their third and last weeding and thinning and on this depends much of the welfare of your crop. Your crop *must* be kept free from weeds and tho plant well thinned out; Carrots should be at least six inches from plant to plant; Parsnips and Beets ten inches, and Mangold-Wurzel and Turnips twelve inches; *less will not insure you a first rate crop*; use your Cultivator freely between tho drills, and at the last thinning remove tho mould from the roots of the Turnips, by which means they will be much freer from fibrous roots; this is all that will be necessary for you to do with the exception of occasionally looking through them to remove large weeds. Mangold-Wurzel should be tho first Root Crop, harvested in the fall (say first week in October); they stand so far out of the ground that they would be injured by the frost.

The method here recommended will, your Committee are of opinion, ensure the largest return to the Farmer for his labour and expense, where manure is plentiful. But as there are many farmers in the country whose opinions should have great weight, favourably disposed to the system of manuring in the drill, and the Committee are not unanimous in their views on the different systems, we think it will be necessary to say a few words on the drill system. In either plan the ground should be well mellowed by the Plough; after the land is prepared, the drills should be opened with a double mould board Plough, eight inches deep, and the drills two and a-half feet apart, compost then laid evenly in the drills, at least twenty horse waggon loads to the acre, and the earth again returned over the manure six inches deep; after the

land is manured and covered over, a heavy roller should be passed over the drills, to settle the soil, break the lumps, and flatten the top of the drill, the seeds are then sowed, as already described, and the whole after treatment the same in every respect. After all, however, that has been said or can be said upon the subject, it is impossible to lay down any general rule that will answer special purposes, in sandy soil the flat system, and on heavier soils the wide system seems to argue best. The Farmer must school himself to mark, learn, and digest the circumstances of his own particular case. For instance when the soil is shallow, to throw it up in ridges, gives more depth of earth, suitable for a long tap rooted plant; again, where manure is scarce by placing the whole compost directly under the plant, it will receive a larger amount of nourishment from a limited amount of manure. So again, where the land is very wet, by throwing it up in ridges, the water will have a greater opportunity of escaping. All these, however, and many more, are circumstances which the Farmer must determine for himself, and which no others are qualified to decide; then again, as to the *quantity* of his Root Crop, and the *particular kind* best for him to cultivate, these are matters of importance to himself and to him only; the distance from market, the articles most likely to fetch a remunerating price; if to be fed to his Stock, what Roots best adapted for particular kinds of Stock; thus Carrots are decidedly the best for horses—Turnips for Oxen, young cattle fattening for beef and Sheep; Mangold-wurzel for Milch Cows; Parsnips for Cows and Hogs:—all these circumstances that an intelligent Farmer will find no difficulty in answering for himself.

We come now in the third place to treat of the peculiar adaptation of this crop to the climate and soil of New Brunswick.

Your Committee are firmly of opinion, that the Province of New Brunswick, stands unsurpassed, both in climate and soil for the cultivation of Root Crops. The rich alluvial soils of our intervales and Islands and much of the strong loamy lands of our highlands, is the very soil of all others the most fitting for the growth of roots; and our warm and sunny weather in the last of May and June warms the earth, vegetates the seeds, and gives a health and vigorous growth to the young plant altogether unknown either in England, or Scotland: and it is a singular circumstance that the Swedish Turnip or Mangold-wurzel have never failed in New Brunswick, where the crop has been managed with skill, and properly attended to. And that carrots, parsnips and beets, succeed well eighteen out of twenty years. Your Committee have carefully

compared the estimated quantity of each of the Root Crops per acre in Europe, with the amounts issued here, and feel confident in stating that when judgment and skill are brought to bear in the cultivation; the produce has been fully equal, and the safety of the Crop much in our favour.

In concluding this Report, your Committee beg to disclaim all idea of assuming any superior knowledge in the art of Agriculture; many of their brother Farmers are equally capable, and some no doubt more so than we are, to instruct others, both in theory and practice: but we do claim an honesty of purpose, and a willingness to assist with our time and means, in promoting what we consider a most important object, and should this report be the means of instruction and helping on the good cause in the smallest degree, your Committee would consider themselves amply compensated.

All of which is most respectfully submitted by

WM. WATTS, Chairman.
J. A. MACLAUCHLAN,
THOS. R. BARKER.

April 3d, 1850.

REPORT OF THE COMMITTEE ON SEEDS.

The Committee appointed on the 31st January, 1850, "to Report on the best means of obtaining a good quantity of Seeds for general use, stating what descriptions may be raised in the Province to advantage, and the quarters from whence other descriptions can be imported, on the most reasonable terms," have to Report, that they have given their attention to the subject referred to them, and endeavoured to comply with the wishes of the Society in reference to the points submitted to them.

The Committee are strongly impressed with the importance of obtaining Seeds of the *best quality*, at any price, as upon this the whole character of the Crop mainly depends; every one being aware that good Seed will vegetate even in an indifferent, or badly prepared soil; while the richest (coupled with the advantages of climate, industry, and skill) fails to produce remuneration, if any defect exists in the internal state of the Seed itself.

The first point which presents itself for consideration, is the best means of obtaining a good supply of Seeds for general use. Notwithstanding the capability of the soil and climate of this Province, to produce, most, if not all the Agricultural, as well as Horticultural Seeds in general use, still until some means are taken, to establish and encourage the growth of a sufficient quantity in the Province to supply the demand, we must naturally look abroad, either to the Markets of England or Scotland, or to those of the United States.

In reference to the Seeds in these markets, Mr. Watts (who speaks from many years experience,) is decidedly of opinion that the home grown Seeds are superior, being purer and more to be depended on—though in importing it is necessary to apply to a Seedsman of character and respectability, as the same attention is not always paid to selections for importation, as for home consumption. He however makes an exception of Indian Corn, French Beans, Cucumber, Squash, Pumpkin, and such like Seeds; for the growth of which the climate of the United States is better adapted.

As regards price Mr. Watts also informs the Committee, that Seeds can be imported at very much lower rates from England or Scotland, than from the United States.

The Home Markets therefore appear to present decided advantages over those of the United States, with the exceptions above noted.

Secondly as to what descriptions of Seeds can be raised in the Province:—

The Committee have to observe that all the cereal Grasses, such as Wheat, Barley, (especially the Spring kinds) Oats and Indian Corn, as well as different kinds of Pulse, or Leguminous Plants, such as Peas, Beans, &c., are easily grown in the Province of a superior quality—all that is required being proper attention to the cultivation, with a periodical change or removal of Seed.

In sowing for Seed, and indeed for a Crop, too much care can not be taken in the selection of soil as well as Seed, growing each kind upon the best adapted for nourishing the plants, and bringing them at maturity, to the highest state of perfection—as for instance Wheat upon rich clays and heavy loams, Barley upon rich loams well pulverised, Oats however may be grown upon any soil fit for cultivation, provided it is sufficiently dry, and need not be too finely pulverised. The best Crops in quantity and quality are generally those succeeding grass.

Indian Corn requires a rich dry soil with warm exposure.

Pease, a dry calcareous soil.

Beans, Clays, and strong loams, and they should always be sowed in drills.

The best mode of obtaining new and improved varieties is to select, during Harvest such heads, or plants as appear to possess superior qualities, either as regards the Seed, tendencies to resist disease, earliness in ripening, &c.,—to sow the Seed thus selected in a garden or piece of ground well prepared for the purpose, and when ripe, to make another selection from the produce of the first, and thus proceed until a sufficient quantity is obtained to sow a small field set apart for the purpose and at a distance from other Crops of the like kind.

We now come to Seeds for Root and Green Crops:—first, as regards Turnip, Mangold-Wurzel, Parsnip, and Cabbage Seed, there is no difficulty in raising an abundant supply with moderate care and attention, no great skill being required. With Carrots however, the Seed Crop is not so certain, as the blossom is often subject to a blight, (an investigation into the causes of which, would be highly useful:) the blight however does not attack all the blossoms indiscriminately, and excellent Seed may be obtained from those untouched by disease, though of course the general Crop is much diminished.

In growing these Seeds, the first point is to select sound roots of the most approved specimens and perfect in form, taking particular care never to grow several varieties of one kind of root near together. Let the roots thus selected be planted from two to three feet apart, in a rich well pulverised soil, as early as possible, covering the crown slightly over; the only after culture required is to keep down the weeds, placing props or stakes, to prevent the branches falling to the ground or being broken by the wind, with a protection against birds when required. The Seed should be carefully gathered as it ripens, (some heads ripening more quickly than others,) and above all let the Seed be thoroughly dried, for if this is neglected, the best Seed will become valueless and all the labour bestowed upon its culture lost. It is true that scientific men have in some instances turned their attention to the production of Hybrids, (or new kinds of plants by vegetable crossing upon the same system as that pursued by Cattle breeders,) and though many of these experiments are very interesting, and in some instances Seed of a superior quality has been produced, yet it is to be considered more a matter of curiosity than one of general utility at present.

Next in order we propose to make a few remarks upon the cultivation of Grass Seeds for the production of Hay Crops, and though Timothy is the grass generally prepared in the Province, the Committee think it very desirable that experiments should be made, with some of the grasses generally cultivated in Europe (particularly the new varieties of Perennial Rye Grass) with a view of ascertaining the propriety of encouraging their introduction into this country. Timothy Seed is already grown to a considerable amount in the Province, and has in fact been exported latterly to some extent to the United States: the new Settlements and particularly the recently cleared lands produce crops of very superior quality, and free from any admixture of weeds: it is generally sowed immediately after burning with the first crop (usually Oats) and produces Seed the next Season. This crop is considered the best, the average produce is from three to five bushels per *acre*, (a considerable portion of which is taken up with the stumps of the trees.) The heads are cut off with a sickle or shears, and the grass which is left is either mowed for hay or fed off; the crop of hay supposing the Seed not cut, would be about three-fourths of a ton, and after the Seed is reaped about one-fourth may be obtained (if cut immediately) as otherwise it becomes dry and good for nothing. It is evident therefore, if the information obtained is to be depended

on, that it is a valuable crop, for the new settler particularly; affording him a much larger return than could be realized from the grass, and in a shape much more easily transported from a distance to market, where it readily sells at prices varying from twelve shillings and six pence to fifteen shillings, and sometimes twenty shillings the bushel.

Some samples of Red Clover Seed have been exhibited at the Agricultural Shows, but it has never been extensively cultivated in the Province. The growing of this Seed is attended with more labour and difficulty. In Great Britain the first growth does not perfect its Seed, it is therefore found necessary either to feed off the first growth, or cut it for soiling or hay, if the latter course is pursued, it should be cut much earlier than usual, so as to give time for the Seeds of the second crop to ripen, before the frost sets in. The growth reserved for Seed must be suffered to remain until the hucks become perfectly brown, and after it is cut left in the field until quite dry and crisp, the great difficulty is in separating Seed from its coat by threshing, it is therefore found better to make use of Mills for the purpose. The produce may generally be reckoned at from three to five bushels per acre.

A Report from those who have tried experiments here would be highly useful, as regards the course to be pursued in reference to this crop, and how far it agrees with that adopted in Great Britain.

In conclusion the Committee beg to recommend to the consideration of the Society, the propriety of endeavouring to establish an Agricultural Warehouse and Seed Store, where a constant supply of the best Seeds might always be procured, affording at the same time every encouragement to domestic growth, and in proportion as the quantity raised in the Province increases, (provided the quality is good) to decrease the importations, and they are of opinion that it would tend much to facilitate this (and be of mutual advantage) if the Agricultural Societies in general, or a portion of them, would club together, and patronize such an Establishment.

All which is respectfully submitted.

W. H. ODELL, Chairman,
JOHN A. BECKWITH,
WM. WATTS.

Fredericton, 3rd April, 1850.

To the New Brunswick Society for the encouragement of Agriculture, Home Manufactures, and Commerce throughout the Province.

The subscribers, to whom among others it was referred to enquire in the best modes of fattening Cattle and Hogs for marketable Beef and Pork, have attended to that duty and beg to Report, that they have learned that there is little or no Salt Beef put up in this Province to supply the markets, and that the large amount annually required for the supply of the New-Brunswick Shipping and otherwise is principally brought from the States or other Countries, mainly because, as it is said, of the Beef of New Brunswick, being grass fed, and not calculated to stand the salt, so that when packed and pickled it generally becomes hard, unpalatable, and is wasted; consequently Foreign Beef chiefly supplies the market. It appears by a quotation in Professor Johnston's Report, page 9, that a similar evil existed in Scotland about one hundred years ago. On a complaint of the mode of fattening Cattle then in use, the writer says, "nor can it be otherwise in the supine ignorance our farmers are in the method of choosing the *right ages* of putting up to fatten their beast and the want of *every provender* fit to raise them; for they generally never stall any but such Oxen as are no longer fit for the yoke: or Cows but such as the good woman tells her husband are no longer fit to breed or milk—these for eight or ten weeks they blow up with scalded barley, chaff, and malt grains; that lean rickle of bones is all the butcher can pick up in Fife and Lothian from Candlemas to June even for our Metropolis, and no other Town is so well served. And if our gentry have them fatter they cost them very dear because to have them so they give them a great deal of Corn, and I oblige that a gentleman shall eat two beeves fed abroad in his enclosures on fog, hay and turnips, and much better Beef than he can one of these stall fed." After recommending a better method of selecting and feeding he adds, "Our over Sea trading Merchants who have occasion to send their Ships far voyages, will find in their own Mercats *that will bear salt* which our own half fed Beef would not heretofore do, and the Ships were forced to call at some Town in England and Ireland to have Beef and Pork to make a Meditterranean or American voyage, or endanger the loss of the crew with the thin, lean, hard Beef their own *Mercats* could afford." It appears also by Professor Johnston's Report, that now the Cattle in Scotland are killed at all

seasons of the year, and the Beef produced is of an excellent quality—that large quantities are forwarded all the year through to the Southern Markets, and it can be cured for Sea voyages, for the Naval Service or for any other use; this change has been principally brought about in Scotland by the altered mode of fattening Cattle, and may be wrought in New Brunswick by a proper attention to the same thing, so that Beef may be produced in this Province fit to be sent on long voyages, or to supply the market of any part of the World.

In speaking of the best methods of fattening Cattle, your Committee do not think it necessary to inquire whether the breeds already in the Province are particularly suited to that purpose, when the business has made some progress and its principles are better understood, they think it probable that the introduction of such breeds as the Durham would be highly beneficial; in the mean time it behoves the Farmer to make the most of the materials within his reach; they believe, however, that a great deal might be done by a careful selection, and to aid the Farmer in that matter, they have mentioned those points in Cattle that are understood to indicate early maturity and a disposition to fatten.

The whole bones of the structure should be fine, the back straight, the loins broad and flat, and the whole carcase well rounded, the head small and tapering to a fine muzzle, horns fine and tending to a slight red at the roots, ears not over large, thin in texture and capable of quick motion, eyes prominent, dark and placid. The happy beaming eye of the healthy animal shows contentment, a matter indispensible to the accumulation of fat, on the contrary a hanging eye wanting vivacity, with much of the white visible, together with heavy eyelids indicates an unhappy and restless disposition incompatible with a good and profitable feeder; the skin should be moderately thick yet loose and yielding to the touch, with a soft and greasy feel, difficult to describe but easily learned by experience, the hair should be thick, fine, soft and glossy.

Cattle reared expressly for fattening should get a liberal supply of food from the time of their calving till two and a-half years old, when the serious business of feeding should commence; every person at all acquainted with the management of Cattle is aware how much easier it is to *keep* them in good condition than it is to bring them into good condition after they have been allowed to go down, the food saved by starving the animal, has to be repaid four fold before it is again got into its former condition; it ought to be the study of the Farmer, therefore, so to proportion his stock to

the quantity of his food, that they may have enough and to spare at all seasons of the year.

Cattle put up to fatten should have a house for themselves apart from the other stock, it should be warm, but well ventilated and kept as clean as possible; the dung should be removed at least twice a day, as the smell is decidedly injurious to the animals, and apt to make them loathe their food. Turnips will necessarily form the staple portion of their food, but it will be highly useful to alternate them, with other matters such as potatoes, carrots, bruised oats, oil cako, &c., mangold-wurzlo does not seem to be very suitable for the manufacture of beef; the times of feeding are, say, 5 morning, 11 forenoon, and 4 afternoon, and these or any other times fixed upon should be regularly attended to: a little hay or straw should be given between meals, and the cattle should be well littered up and kept as quiet as possible; considerable difference of opinion exists among feeders as to the propriety of cooking the food given to Cattle—some years ago, experiments were made at the suggestion of the Highland Society of Scotland, as to the comparative value of raw and cooked food, and the result was that though the beasts kept on cooked food gained a little more weight in the course of the trial than the others kept on raw food, yet that gain was not equal to the expense of preparing the food. In this country where the winters are so much colder, and turnips are liable to be frozen, the superiority of the cooked food would probably be more marked; perhaps the proper way would be to compromise the matter by giving the first two meals raw, and the evening one cooked; when potatoes are used we would recommend that they should be boiled and mixed up with cut straw or chaff.

The quantity of food proper for a meal, will depend on the size of the animal, but the following quantities will not be very wide of the mark for an ordinary sized beast, (supposing three feeds per day to be given,) turnips 30 lbs., potatoes 20 lbs., carrots 20 lbs., bruised oats or corn 5 lbs., and oil cake about 5 lbs.

The great secret of the business is, to find out what quantity of food the Cattle will eat without impairing their appetites or producing loathing, an evil particularly to be guarded against; for this purpose the person in charge should watch the animals during their meals, and if any portion of the food is left after the appetite is satisfied, it should be carefully removed and a corresponding quantity subtracted from the other meals. It must be borne in mind however, that the greater the quantity of food the beast can be made to consume without producing satiety the sooner he will be

ready for the butcher, and the less the food required to be expended in feeding him, or the greater will be the quantity of meat in proportion to the food consumed,—thus suppose it require at the rate of sixty bushels of turnips to bring an ox to a certain condition in forty days, and that one-fourth part, or fifteen bushels of those turnips would be required during that time to support the animal system, and that 7s. 6d. be paid for the labour of feeding, if the period of feeding the ox were prolonged to four times forty, viz: one hundred and sixty days, the whole sixty bushels of turnips and 7s. 6d. worth of labour would be exhausted in merely sustaining the original condition of the ox, without any accumulation of meat since first put up, on the other hand, if the ox can be induced to consume the food with a good appetite, so as to be raised to the above condition in *twenty* days instead of forty—twenty days support of the animal system or seven and a-half bushels of the turnips will be consequently saved, or the amount there is consumed will become surplus nutriment and be laid in as fat.

As cattle thrive and fatten faster in warm weather than cold, the earlier in the season they are tied up the better, provided their food is ready for them, and it will be better for the Farmer to take up a portion of his turnips before they have attained their full size, than to delay the business till the end of the season.

If cattle are put up in good condition and carefully attended to they should be ready for the butcher in four months, Farmers however should be provided with food for six months consumption at least, he will thus have a greater choice of market days, and otherwise he will be no loser by the delay, as his cattle will pay him fully as well for the *last two* months as they will do for the *first four*. With respect to the ages at which cattle are put up to fatten, your Committee believe that two and a-half years is the best age for the breeds of cattle now in the Province, or about three years old when killed, that after they are past eight or nine there is small chance of their paying for stall feeding; old oxen and cows that are past milking are therefore inadmissible, and should be made the most of on the pasture.

Many of the above remarks on the fattening of cattle equally apply to the fattening of hogs; in addition it may be observed that hogs are found to relish mashed or meal food, and to fatten faster upon it when slightly fermented, and the condition of the Pork is rendered more solid and improved by it, and occasionally giving the hogs a small portion of charcoal is found to be beneficial as helping their appetite.

Before leaving the subject your Committee would impress it on the mind of the Farmer that it is not to the enhanced value of his stock alone that he is to look for reimbursements for the food consumed, and the trouble incurred in stall feeding, the augmented quantity and the greatly enhanced quality of his manure will enable him to reproduce the food consumed and set a going as system which once fairly established is self supporting.

In conclusion, while we would urge on Farmers the great importance of cattle feeding, we feel that it cannot be entered on with propriety till there is a surplus of food provided beyond what is necessary to keep the permanent stock in good condition: to make one or two animals fat at the expense of the rest of the stock would be bad policy, and utterly opposed to the spirit we would wish to see prevalent among the Farmers of this Province.

And now we have finished our task—imperfectly we admit—but honestly and with the best disposition to make ourselves useful, unfortunately we can lay claim to but little knowledge on this or any other subject connected with Agriculture, but that little will always be at the service of the Society. We are, &c.

ROBERT GRAY,
CHARLES HARRISON, } Committee.(*a*)

(*a*) COMPOUND FOR FATTENING CATTLE.

Flax-seed and oil-cake have long been considered very valuable for fattening cattle. The English farmers prize these articles highly, and great quantities are imported and used in the British Islands. Oil-cake is even carried from this continent to fatten English beef. One great advantage which the English farmer thinks he derives from the use of it, is the improved quantity of the manure, and this is considered of such consequence as to balance a large portion of the expense of the cake. Flax-seed or linseed *oil*, has likewise been sometimes used, mixed with bran, &c., for fattening animals, and the effect has been a very rapid gain. We have occasionally used flax-seed for cattle with good advantage, by boiling it and mixing with meal, cut hay, &c. We recollect the practice of one man in particular, who, more than twenty years ago, was considered to have great success in fattening cattle, he boiled a quantity of flax-seed, or instead of that, pulverized oil-cake, with potatoes, and scalded meal, (either from barley and corn,) in such quantity that when the mixture was cold it could be cut out in pieces, and in that shape was given to the cattle while they were in their stalls.

In the third volume of the American Farmer, is an article by Nathan Landon, of Litchfield, Conn., on the subject of feeding cattle with cut straw, oil-cake and flax-seed. He says he fattened an ox and a three year old heifer, with less expense, even, than that of common keeping, by the following process. He says—"I boiled about two quarts of flax-seed and sprinkled on to cut straw, which had been previously scalded and seasoned with salt, together with some oil-cake and oat-meal, working them together in a tub with a short pitch fork, till the whole became an oily mush. I fattened the heifer first—she was of ordinary size, and in good order to winter. I gave her about three pecks, [of the mixture] which she ate voraciously, and in the course of four days, when the seed was gone, she was visibly altered. I fed her regu-

larly in that way about two months, in which time she had eaten about one bushel of boiled flax-seed, with the other ingredients in proportion—when she was butchered, she weighed 584 pounds, 84 pounds of which was tallow. She would not have sold before fattening for more than $16. I sold two quarters of her beef for $18, 13. She cost me not more than $10, exclusive of the hay and straw she ate, which was chiefly scalded as above. On the first of February I began with the ox. I fed him about three months, but not altogether so well as I did the heifer. He digested about one pint of boiled flaxseed a day, prepared as above, which I suppose formed half the fat in these two cattle. The ox was short, measured [girthed] seven feet two inches, and when killed, weighed 1082 pounds, and had 182 pounds of tallow. He cost me while fattening, twenty-five cents a day; he had previously cost me thirty-five cents. My nett gain in fattening these two cattle, was more than all I have cleared before in fattening oxen and cows in fifteen years; and this is owing, I think, chiefly to the use of flax-seed. I never fattened cattle that appeared so calm, so hearty, and digested their food with so much natural ease and regularity as these. I kept my cows in the same way in the month of March for one third the expense of hay. It makes excellent milk and butter."

We have lately seen frequent recommendations of an article used in England for fattening cattle, called "Warnes' Compound." Sir Charles Burrell, in a letter published in the Farmers' Journal, gives an account of the mode of making this celebrated compound, from which we gather the following. It is said to be a very economical and efficacious food.

1st. Let a quantity of linseed be reduced to fine meal, that is to say, let every seed be thoroughly broken. 2d. Put about 156 pounds of water into a copper, and let it boil. 3d. Stir into the water quickly 2 lbs. of the linsed meal, and let it boil for about five minutes. 4th. Let 63 lbs. of barley or bean meal be sprinkled upon the boiling mucilage by the hand of one person, while another as rapidly as possible stirs and works it in. The whole will now have assumed the form of a thick mess or pudding. The fire should be put out, and in a short time the food may be given to the cattle. When cold the compound should be perfectly stiff. Many farmers put it into moulds like those used for bricks while hot. The compound is generally given in small quantities at first, and increased at pleasure—for the first week, 5 lbs. or 7lbs. per day, when according to the size of the animal and quantity of other food given, the quantity may be increased to 14 lbs., 21 lbs., or 28 lbs. per day. To make cattle compound with potatoes or white carrots, nothing more is required than, after having been properly steamed or boiled, to remove them from the vessels, *as hot as possible, into a trough*, then sprinkle some linseed meal upon them, and knead the whole into a mass with the rammer. The compound may be put hot into the moulds and made into cakes, or used from the trough. Less labor will be required, if the roots are removed the cooking vessels in small quantities, and incorporated with the meal. The proportions must be left to circumstances and to the cost at which cattle are intended to be fed. The effect of giving only one pound of linseed meal per day to a bullock, when incorporated with potatoes or carrots, will soon become visible; but if a pound or two more were added, the animal would fatten at a rate which those alone who watched the cattle could believe.

To the New Brunswick Society for the encouragement of Agriculture, Home Manufactures, and Commerce throughout the Province.

Your Committee, to whom it was referred to enquire and Report, &c., on the best Cash Markets for Beef and Pork, and the most practical and effective modes for putting up the same fit to command such Markets, and if necessary to prepare and submit a Bill to the Legislature for the purpose, beg leave to say that they have attended to those duties and respectfully

REPORT.

1st. That they have made considerable enquiry on the subject of markets from Merchants of high standing and experience in various parts of the Province and have derived information from "prices current" as given in the English newspapers and otherwise, and find that the English—the American and the Home markets are chiefly worthy of consideration. As to the English market, it seems that it is largely supplied with Beef and Pork not only from Europe, Great Britain, and Ireland but also from the Canadas and the United States at remunerative prices, and it appears to be the general opinion, that with proper attention to the producing and putting up of these articles for exportation, they might be sent with advantage from New Brunswick. This opinion has been given to one of the members of your Committee, by the Hon. William Crane, the Hon. J. Cunard, Francis Ferguson, Esq., and several other experienced Merchants residing in the Province, and is, in all probability correct; the English papers give the last prices current of United States Beef and Pork, in the Liverpool markets, which may be taken as a standard of the English markets, generally, but to form an estimate from prices, it must be recollected that the quality or brand of the article should be known and kept in view. The United States and Canadian laws to regulate the putting up Beef and Pork for exportation, generally distinguish those articles, by four descriptive qualities or brands: viz., *Beef*—1st. "Extra Mess"—consisting of the most choice pieces of the fattest cattle weighing not less than 600lbs exclusive of hide and tallow—2nd. "Mess Beef," of the choice pieces of large and fat cattle, without hocks, shoulders, clods or necks, and to contain in a Barrel two choice rounds not exceeding eight lbs. each—3rd. "Prime Beef," of pieces of good fat cattle containing in a Barrel not more

than one half of a neck, two shanks with the hocks cut off, and the hind legs, at the smallest place, above the joint—4th "Cargo Beef" of such cattle with a proportion of good pieces—not more than one-half of a neck—three shanks with the hocks cut off above the joint as aforesaid and to be otherwise merchantible—*Pork* 1st. "Mess Pork" consisting of the sides of good fat hogs exclusively—weighing 250 lbs., or upwards, taken from the shoulder to the hip, casting off the flank—2nd. "Prime Mess Pork" consisting of good fat hogs, one carcass to the barrel, the lard and trimmings taken off—3rd. "Prime Pork" packed from good fat hogs, ranging from 160 to 200 lbs. and of which there shall be in a barrel not more than three shoulders having the legs cut off, at the knee joint,—not more than 24 lbs. of heads without ears, and the snout cut off at the opening of the jaws, and the brains and bloody grizzle taken away and the remainder made up of side, neck and tail pieces—4th "Cargo Pork" taken from carcasses weighing not less than 100 lbs. each and of which there shall not be in one barrel more than 30 lbs. of head and fore shoulders, and the remainder to be merchantible pork. The current price in the Liverpool market, in February last past was, for United States, "Prime Mess Beef" (which appears to be 2nd quality,) per Barrel 200lbs. 50s., to 55s. sterling,—it seems that the shipping charge, Insurance agency &c., of a Barrel of Beef or Pork from the City of St. John to Liverpool would be about 8s sterling—this sum deducted from the above would leave the price from 42s to 47s at St. John sterling or about 50s 6d. to 56s. 6d. our currency—and if the price of Beef alone be sought for, before being put up and as brought in quarters to Fredericton or other parts of the Province,—the price of the Barrel, cutting up, packing, salt, salt-petre, inspection, freight, cartage &c. &c. must be taken into account, amounting to about 7s. 6d. and further reducing the above prices 43s. to 49s. per 200 lbs. or from 2 1-2d to nearly 3d. currency per lb.—so at the above period, the current price in the Liverpool market of "Prime Mess Pork" (which appears the 2nd quality) 54s. to 56s. sterling—reduce the shipping charges, and add for the currency as above, and it will stand at from 55s. to 58s. currency per barrel at St. John, and throw off the charges as before and the price will be from 48s. 6d. to 50s. 6d. in Fredericton. It must be recollected however, that the above prices appear to apply to the 2nd quality of Beef and Pork only, the first quality bringing about 14s. or 15s. currency, higher; and that the United States pork does not command the best name or market, but is commonly a drug in consequence of its being fat, soft, oily and otherwise objectionable—the Irish Pork, to which New Brunswick Pork is similar, commanding,

in the English market, per barrel, 9s. or 10s. more than that brought from the States: hence it appears very probable that England would afford a good cash market, at remunerative prices, for Beef and Pork, especially *Beef* sent from New Brunswick.

As to the American markets, the high Tariff of the United States, may disable us from taking pork thither, but beef is cheaper in New Brunswick than in any part of the United States, and your Committee are informed that notwithstanding the high Tariff, Beef is exported from Nova Scotia to Boston and other parts of the United States, but to what extent they have not the means of ascertaining.

It is also the opinion of Merchants of high standing, especially the Hon. William Crane, that Beef and Pork raised in this Province would find a good market in Newfoundland, the West Indies and the Bermudas.

But the great, the profitable, and for many years, the inexhaustible cash market for the New Brunswick farmers Beef and Pork is our Home market, for the supply of our ship-owners, fishermen, lumberers, manufacturers, labourers, and nearly all classes in New Brunswick.

The amount of Beef and Pork yearly imported into this Province, cannot be ascertained with exactness, but upon the best calculation that can be made, the quantity of beef and pork annually imported into the various parts of this Province cannot be less than 100,000 Barrels, or to the amount of nearly £300,000. The quantity stated in the Treasury returns affords no guide, as it is only a part of the Beef and Pork imported, or the amount which might be supplied, by the New Brunswick farmer, for, independent of a large amount which escapes duty, the Colonial shipping alone, is supposed to require about 30,000 barrels annually and this being bonded in the Ware House, and paying no duty does not appear in the Treasury returns, so the British and Foreign Shipping coming to the different parts of this Province which on the return voyage would be supplied by our Farmer, (were these articles attended to in New Brunswick,) are furnished by Foreign markets—so the extensive coasting trade carried on in different parts of the Province, is subject to the same remark, and as a reason generally urged why the lumbering interest is less profitable than it might be, the meat required for the extensive *milling and lumbering* operations is chiefly imported from Foreign markets; hence the articles in question, used in almost all departments, are passed into the Province, by every avenue, land or waters, from the Restigouche round to the St. Francis, at remunerative prices, and the money goes out for them, while our farmers are thinking themselves with-

out markets. It is observable also, that if the energies of the people be put forth to improve the condition of the Province, by encouraging manufactures, fisheries, and a good description of emigration, the demand for the articles in question would soon be doubled. The Beef and Pork imported from abroad, into St. John, for Ships' use, is chiefly of the second and third qualities and the price of those articles in the St. John market, is generally governed by the quality or brand, though considerably fluctuating and without any fixed standard. Last fall the Hon. John Robertson of the City of Saint John, imported a quantity of "Mess Beef" (viz: 2nd quality) for his ships' use, costing him, in New York, from £2 15s. to £3 per barrel and 5s. per barrel Import and Ware house charges, making £3 to £3 5s. per barrel, also from the same place, a quantity of "Prime" (viz: 3d quality,) Pork, at £2 5s., freight &c. 5s., making £2 10s. "Prime (viz: 3rd. quality) Beef" is very generally used by shipowners, especially for short voyages, it costing about 15s. less than "Mess" or 2nd quality Beef,—"Prime Mess (or 2nd quality) Pork" not bonded in the Ware-house, has varied in price in the Saint John market, for the last three or four years, from £3 10s. to £4 10s. per barrel. Take then the lowest prices for the 2nd quality of Beef, in the St. John market as paid by Mr. Robertson in the Ware-house, without duty, viz: £3 to £3 5s.,—cast off 7s 6d. as an allowance for the barrel and other charges as before, and the price of the beef in quarters, in Fredericton or other parts of the Province, 2nd quality, would stand at £2 15s per Barrel, or 3 1-4d. per lb. add the difference of 15s. for the first quality, and it would stand in quarters at Fredericton, £4 10s. or nearly 4 1-4d. per lb. so the Ware-house prices of the different qualities of pork can be ascertained in the same way, but in higher proportions.

We will now consider the price of pork imported into St. John as above stated, and paying the duty—take the Prime Mess or 2nd quality Pork as the standard and £4 as the average price, cast off the 7s. 6d. as before, and the price of the pork uncut, at Fredericton or other parts of the Province, would be £3 12s. 6d. or upwards of 4 1-4d. per lb.,—add 15s. for 1st quality, and the nett price would then stand at Fredericton or other parts of the Province £4 7s. 6d. or upwards of 5d. per lb. The price of the 3rd quality of Beef or Pork may be pretty correctly ascertained by deducting about 15s. from the price of the second quality. As to the fourth quality of Beef or Pork it is rarely carried to market but like the cuttings and trimmings of the better qualities is generally kept for home consumption.

Hence it appears not only that there are just grounds for believing that a good market exists in England and elsewhere, available for our New Brunswick Farmer, but also that it is obvious he has a great and inexhaustible cash market, with good prices at his own doors, for all the beef and pork he can raise,—provided, *it can be put up fit to command such market.*

This brings us to the second consideration—namely, can beef and pork raised in this Province be put up fit to command such markets?

It is a strange anomaly, that while in Nova Scotia, a Province no better for raising Beef than this, they should export beef in spite of the heavy Tariff, into the United States, and that we should import it—and that though *fresh* Beef is lower in this Province than in any part of the States, we should nevertheless, largely import *salt* Beef from the United States to New Brunswick. If you ask the New Brunswick farmer why he does not raise more Beef and Pork for sale, his answer is, "No market for it." If you ask the New Brunswick ship-owner or merchant of this, he answers—"there is a good market, but it is not produced by the farmer" and each answer is true, in the existing state of affairs, for the farmer has no market for the article in the state in which he would furnish it to the merchant: perhaps old worn out oxen or cows, *grass* fed or half fattened, the meat calculated to become hard, shrunken, and wasted, without the knowledge of the proper mode of curing, with no fit barrel and proper putting up to preserve it from spoiling, or any inspection or brand to give it character, *there is "no market for it."* So it is equally true as said by the merchant, "*there is a good market* for a *proper* article, *properly* put up to answer the purpose, but the farmer does *not* furnish this, indeed all the experienced merchants and ship masters say that the grass fed Beef in *soft* wood barrels will not stand the salt, becomes hard and tasteless, the pickle runs off, the meat spoils and is thrown overboard by the sailors, it will consequently *not do* to purchase: so with Pork in *soft* wood barrels, it will not keep for long voyages, and of course in good markets will not sell, for these reasons principally, the merchants, ship owners and others in New Brunswick are *compelled* to buy Foreign Beef and Pork, and leave our farmers, *without a market.*

The evil occurs either in the condition of the material itself, or in the mode of putting it up and sometimes both; *can those evils be remedied?* Undoubtedly they can,—as to material, there is no doubt, that if Beef and Pork can be brought to a proper condition in the Canadas and the North Eastern States the same can be done in New Brunswick, it only requires a proper selection of animals, with proper

attention in feeding them, your Committee of their own personal knowledge know, and any person of ordinary experience, who will look at the foregoing qualities of Beef and Pork taken from the New York and Montreal standards, will perceive, that there can be no trouble whatever, in bringing Beef or Pork up to the highest of these standards, and if a fixed standard of qualities be, by law established, with the view of sale, our farmers will then have a guide and no difficulty in coming up to that standard.

But this is not all, for to give such Beef and Pork a proper designation of character, so that they may be confidently purchased at home and abroad, compete with skilful dealers in the markets from other countries, and meet the expectations of those who deal in them, an Act of the Legislature is required to prescribe a proper description of hard wood barrel, and other particulars in reference to the manner in which the article should be put up, and requiring to be selected a competent inspector, of skill and experience in the business to inspect and brand the article to put it in a complete marketable shape, as is done in all the countries where Salt Beef or Pork is cured for market, as in Europe, Great Britain, Ireland, the States, Montreal and elsewhere. As there never has been any law existing in New Brunswick to regulate the putting up of Beef and Pork for exportation, that branch of business has *not* been attended to, and consequently the article with the putting of it up, has *a character to make* before it can have success —the competency of the inspector, and the rigid performance of his duty is all important for the success of the undertaking, as the skilful and complete manner in which the article is put up has chiefly to do with *remunerative* prices,—in fact it is the only way in which New Brunswick Beef and Pork could be made fit to command such markets —and the make and appearance of the barrel is as important for the successful sale of the Beef and Pork, in a market of keen competition, as decent clothing is for the favourable appearance of an individual among strangers—convinced that at no distant day, when the attention of the public becomes fully awakened to the importance of the subject now under consideration, our farmers will not only enrich themselves by supplying the New Brunswick market—greatly to be augmented as it is hoped, by the operations of Provincial enterprize—but that Beef and Pork, ere long, will rank among our most extensive and profitable exports, your Committee feel that too much attention cannot be paid to details, especially in the outset of such an enterprize. We should particularly aim, at imitating the best examples, to gain the highest character, and aim at the highest character, to obtain the highest prices—secure gain and escape loss—especially when it is attended

with no additional cost; the consideration which this topic deserves may be better illustrated by referring to the effect of the packing establishments in New York and the various parts of the States where improvement is wanting as compared with those of Ireland,—the most skilful curers and packers in the world, where they put up the article in such a way that the meat will keep in good condition for years in any climate, and when opened after a lapse of several years, as sweet as when put up and the brine perfectly clear. In a letter of Mr. Peters, an American correspondent of the Albany Cultivator, writing from England in 1842, and who, having visited all the best packing establishments in Europe, Great Britain and Ireland, became master of the whole subject of curing and packing provisions—whose communication re-published in the Head Quarters of 23rd ult., contains admirable suggestions on this subject; he says, "competition is very keen among the Irish and Continental provision curers and great skill is used to make the best article." * * * "A friend in London unpacked several packages of Irish and Hamburgh cured provisions, by the side of American—the contrast was anything but flattering to our taste and skill; I could very readily see, why our beef and pork bore so bad a name in the market and was so much a drug—the meat was not inferior but it was badly messed, worse cut, and cured, and the brine nearly as red as blood, and presenting, by the side of the other, not a very palatable appearance:" again he says, "no pains should be spared, in preparing and putting it up, as the neat and tastey appearance of the packages, will ensure a more ready sale, then if put up in a slovenly manner;" and the writer then concludes, "I trust the season will not pass, without finding several establishments preparing and curing provisions *according to the Irish method.*"

It appears also by the Albany Culiivator for 1850, page 57, in a circular by Messrs. Allan & Anderson, extensive provision dealers in London—sent out in relation to the curing and packing of Pork for the English markets, that the Irish pork was preferred in the London markets, even at advanced rates, whiie the American became and continued a dull dragging Trade—the circular thus proceeds "some few of the first arrivals of New York and Baltimore brands came, of prime quality and brought remunerative prices—but almost all the western brands have come, particularly bad,—defective in cure—wretched in colour—and the meat, soft and inferior. The chief defect, in almost all American Prime Mess Pork, is the colour; instead of being the bright cherry red, characteristic of skilfully pickled meat, it is a dirty, dull, unsightly brown. That this is remediable,

and arises in the manufacture, is proved by some few brands coming otherwise. But unless it be obviated, the preference will continue to be given to Irish and Hambro, although *inferior* meat, at *much higher prices.*" With these views your Committee drafted a Bill to regulate the inspection of Beef and Pork for exportation, having before them as their guide an abstract of the New York State Exportation Law,—the above mentioned letter of Mr. Peters and a valuable pamphlet, furnished by the kindness of the Hon. Mr. Rankin, written by Mr. William Moore, the Chief Inspector of Beef and Pork at Montreal and whose brand is said to be equal to any in the world. Your Committee reviewed this Bill personally and individually and with reference to its practical operation and showed it to several practical men of high standing who concurred with your Committee in the utility of all the provisions therein, after which it was brought before the Agricultural Committee of the House of Assembly now in Session, who approving of the measure, brought it before the House as a part of their report and the same has undergone considerable discussion and stands for further consideration. This Bill, a copy of which is herewith submitted as a part of this report, gives the views of your Committee more in detail, as to the most practical and effective modes for putting up Beef and Pork fit to command cash markets, and they trust it may meet with the approbation of the Legislature.

In conclusion your Committee beg to observe, that while they are sensible that this report is less complete than it should be, they trust it may have a tendency, to draw more attention, to a matter of such vast importance, and, in connection with the subjects of the four preceding Special Committees, will ultimately enable us, to derive from our *own resources*, that, for which, we are now accustomed to *drain the Province of its money, to pay* to other countries.

All which is respectfully submitted,

R. CHESTNUT, Chairman,
DAVID S. KERR,
JAMES TAYLOR,
ROBERT JARDINE.

Fredericton, 23rd March, 1850.

A BILL To regulate the putting up of Beef and Pork, within the Province for Exportation.

Whereas this Province possesses great advantages for the raising of Beef and Pork, and no established mode existing as to the putting up of these articles for exportation, provision for the purpose is necessary—

I. Be it enacted by the Lieutenant Governor, Legislative Council and Assembly, that there shall be established at some suitable and convenionl place in each and every County of this Province, a sufficient Store or Yard to receive such Beef and Pork as may be brought for inspection, without any charge for storage, provided that the inspected Beef and Pork be removed within three days after notice given to the owner or agent, of repackage.

II. And be it further enacted, That it shall be lawful for the Lieutenant Governor, or the Administrator of the Government for the time being, by and with the advice and consent of the Executive Council to appoint, for each and every County of this Province, respectively, or for several contiguous Counties, a fit and proper person to be inspector of Beef and Pork: Provided always, that previous to the appointment of any such person it shall be made to appear by sufficient certificates, vouchers, or other proper evidence, to the satisfaction of the Lieutenant Governor or Administrator of Government for the time being, and the Executive Council, that said person is fully qualified for the efficient discharge of the duties hereafter required: And provided also, that such person before entering upon the duties of his office, shall give a bond with one or more sufficient sureties, to the Lieutenant Governor or Administrator of the Government for the time being, to be taken by, approved of, and filed with the Secretary of the Province in the penalty of three hundred pounds, conditioned for the faithful performance of such inspectors duties and the providing of a sufficient Store or Yard in some proper and convenient place within the County or Counties respectively to which he may be appointed inspector as aforesaid, for the storing or preserving of such Beef and Pork as may be brought to him for inspection, within such Counties respectively and without charge for storage, provided the same be removed within three days after notice given to the owner or his agent of such repackage.

III. And be it further enacted, That no Beef or Pork shall be exported or shipped for exportation from this Province, or be sold

to the owners or agents of ships or vessels for sea voyages, unless previously inspected, packed, and branded by an inspector, duly qualified and appointed as aforesaid, except Beef and Pork which may be imported into this Province from any other place, and packed and branded agreeably to the laws of the place from which such Beef or Pork may be brought, and except also fresh Beef for Ships' Stores, and Beef put up by a duly licensed butcher, in barrels, half barrels, tubs or kegs for Ships' Stores, and Beef put up by a duly licensed butcher in barrels, half barrels, tubs or kegs for exportation, if put up by the butcher killing the same, with his name and the weight contained, branded on the head of each such package respectively, and any person exporting, shipping for exportation, or disposing of any Beef or Pork contrary to the foregoing provisions, shall forfeit for every barrel, half barrel, or package, so disposed of a sum not exceeding three pounds to the use of the person suing therefor.

IV. And be it further enacted, That all tierces, barrels, or half barrels in which Beef or Pork is required to be repacked by an inspector, shall and they are hereby required to be of good split, well seasoned, white oak, or white ash wood, free from sap and every defect and to be of sufficient strength and completeness, the tierces respectively to contain at least 300 lbs., and be capable of packing from fifty to fifty-one pieces six pounds each of Pork, or thirty-eight pieces eight pounds each of Beef and no more, with eight substantial wooden and three iron hoops on each end thereof well set and driven, the barrels to measure seventeen and a-half inches between the chines, to be twenty-eight inches long, one third of the length at each end thereof, covered with good white oak, white ash, or other substantial hoops, the heads of the said barrels to be not less than eighteen inches long, and three quarters of an inch thick, and the staves thereof, on each edge and at the bilge to be not less than five-eighths of an inch thick, the hoops to be well set and driven, branded on the bilge with the initials of the cooper's name, and to contain at least two hundred pounds, and the half barrels to be in proportion to and of like materials as the barrels, with the initials of the cooper's name, to contain not less than fifteen nor more than sixteen gallons and to pack of pieces not less than four pounds each at least one hundred pounds.

V. And be it further enacted, That whenever any Beef or Pork shall be repacked agreeably to the provisions of this Act, the casks thereof being bored at the centre of the bilge with a bit of one inch in diameter shall be pickled with saturated brine and, if found to

be in larger tierces, barrels or half barrels than by this Act is prescribed, the said casks shall be condemned or the same shall be filled up by the inspector with good meat at the election and expense of the owner thereof.

VI. And be it further enacted, That it shall be the duty of the inspector and he is hereby required to examine and sort all Beef and Pork inspected by him, and shall brand no Beef or Pork not well fattened and packed in proper casks.

VII. And be it further enacted, That in the inspecting and branding of any Pork by virtue of this Act, there shall be four qualities, the first quality shall consist of the sides of good fat hogs exclusively, weighing 250 lbs. or upwards, taken from the shoulder to the hips, casting off the flank, and shall be branded "Mess Pork," the second quality consisting of good fat hogs one carcass to the barrel, the lard and trimmings taken off, shall be branded "Prime Mess Pork," the third quality to be packed from good fat hogs weighing from 160 lbs. to 200 lbs., and of which there shall be in a barrel not more than three shoulders, having the legs cut off at the knee joint, not more than twenty-four pounds of heads, without ears, and the snouts cut off at the opening of the jaws, and the brains and bloody gristle taken away, and the remainder made up of side, neck, and tail pieces shall be branded "Prime Pork," the fourth quality to be packed from carcasses not less than 100 lbs. each, and of which there shall not be in one barrel more than thirty pounds of head and four shoulders and the remainder being merchantable Pork shall be branded "Cargo Pork," such Pork so repacked shall be cut from the back bone to the belly in pieces, about five inches wide, and weighing not less than 4 lbs., and tierces and half barrels, as to quality, shall be in like proportion otherwise the casks containing such Pork shall not be branded as merchantable.

VIII. And be it further enacted, That for every barrel of Pork branded as aforesaid, there shall be sixteen quarts of good pure salt equal in weight and quality to Turks Island, and a proportion whereof shall be coarse salt, and a new pickle as strong as salt can make it, and saltpetre added at the rate of three ounces to each barrel: Provided always, that if any Pork shall be inspected and branded when fresh, there shall be not less than twenty-four quarts of such salt exclusive of such pickle, and tierces and half barrels in proportion.

IX. And be it further enacted, That thin, soft, rusty, measly, or tainted Pork shall not in any case be branded, but the inspector

shall mark the head of the cask containing such Pork with paint, and his name to designate the true character of such Pork, and if any person or persons shall at any time alter the mark of such inspector or add thereto contrary to the true intent and meaning this Act, such person or persons, shall forfeit the sum of three pounds for every tierce, barrel, or half barrel so altered, shipped, or disposed of, or attempted to be shipped or disposed of to be recovered to the use of the person suing therefor.

X. And be it further enacted, That no Beef shall be repacked for exportation or to supply the shipping of this Province for sea voyages, unless of fat young cattle not under three years old, in pieces as square as may be not exceeding twelve or under four pounds weight, such Beef to be divided into four qualities, namely, "Extra Mess," consisting of the most choice pieces of the fattest cattle, weighing not less than six hundred pounds exclusive of hide and tallow, "Mess Beef," of the choice pieces of large and fat cattle without the hocks, shoulder, clods, or necks, the cask to contain two choice rounds not exceeding eight pounds each, "Prime Beef," of pieces of good fat cattle containing in a barrel not more than one-half of a neck, two shanks with the hocks cut off, and the hind legs at the smallest place above the joint, "Cargo Beef," of such cattle, with a proportion of good pieces not more than one half of a neck, three shanks with the hocks cut off above the joint as aforesaid, and to be otherwise merchantable, and the aforesaid names and qualities shall be respectively branded upon each cask together, with the respective quantities, by the inspector who inspects the same.

XI. And be it further enacted, That into every barrel of Beef so inspected and repacked, there shall be put not less than twenty quarts of pure salt, four ounces of saltpetre, and a new pickle such salt and pickle to be of like quality proportion and strength as by this Act is required for Pork, and tierces and half barrels in like proportion, and all bloody and neck pieces offered for inspection shall be properly cleaned before the same shall be put up and repacked as aforesaid.

XII. And be it further enacted, That on the head of each cask of merchantable Beef or Pork repacked and inspected agreeably to the provisions of the Act, shall be branded, the weight of its contents with the initials of the christian name and the surname of the inspector at full length, or both at full length, with the words "City of Fredericton," or "City of St. John, Province of New Brunswick," if inspected at either of these places, and the name

of the County and the words "Province of New Brunswick" if inspected in any other County of the Province.

XIII. And be it further enacted, That the inspector shall be entitled unless it be otherwise agreed between the parties, to receive the market price for any salt or saltpetre, necessarily required and furnished by him, to complete his inspection agreeably to this Act, one shilling and three pence for the inspection of each tierce, one shilling for each barrel, and eight pence for each half barrel re-packed and inspected by him, eight pence for flagging, pegging, nailing, salting and pickling each barrel, two pence for each hoop put on, and for tierces and half-barrels to be remunerated in like proportion such charges and remuneration, to be payable to the inspector before the inspected cask is removed from his charge.

XIV. And be it further enacted, That no inspector shall be concerned in the purchase of cattle or hogs with the intention to pack them for sale on his own account, nor shall in any manner partake of the profits or loss of any Beef or Pork when intended for packing, under the penalty of one hundred pounds for each offence, nor shall he be allowed to inspect or brand any cask out of the county or counties for which he may be appointed inspector, nor shall he in any case lend or hire his brands under the penalty of ten pounds for every tierce, barrel, half barrel or cask, so improperly inspected or branded contrary to the provisions of this Act.

XV. And be it further enacted, That the Store or yard of the inspector of the County of York shall be in the City of Fredericton, between Saint John and Smyth Streets at some convenient and proper place near the margin of the river, and that the said inspector of the County of York shall not inspect at any other place within the said County of York, except at his said Store or yard in the City of Fredericton aforesaid, under the penalty of three pounds for every tierce, barrel, half barrel or cask so repacked and inspected contrary to the provisions of this Act, and if any person or persons other than such inspector shall brand any tierce, barrel, half barrel or cask he or they shall forfeit the like sum of three pounds for every such tierce, barrel, half barrel or cask so branded contrary to the provisions of this Act.

XVI. And be it further enacted, That no dealer in Beef or Pork, inspector or other person acting on behalf of such dealer, shall suffer any Beef or Pork after inspection, to be exposed to the heat of the sun or inclement weather longer than twelve hours, under the penalty of thirty shillings for each offence, to be recovered in the name and to the use of the person suing therefor.

XVII. And be it further enacted, That any person intermixing, taking out, or shifting Beef or Pork of casks inspected or putting into such casks other Beef or Pork for sale or exportation, or altering the brand or mark of the inspector, shall forfeit the sum of five pounds for each cask, respectively to be recovered for the use of the person suing therefor.

XVII. And be it further enacted, That any person slaughtering cattle or hogs to be put up for inspection contrary to law, shall forfeit the sum of five pounds for every head respectively to be recovered to the use of the person suing therefor.

XIX. And be it further enacted, That any person selling or disposing of empty barrels or the heads of barrels that have contained Beef or Pork without having first obliterated the inspector's brand or mark, shall forfeit the sum of thirty shillings for each barrel or head to the use of the person suing therefor.

XX. And be it further enacted, That all Beef or Pork intended for exportation or tho shipping of this Province, shall be cut up, cured, put up, and inspected as near as may be agreeably to the modes now in use by such packing establishments in Ireland, as are accustomed to put up and furnish Beef or Pork for the London and Liverpool Markets.

To the New Brunswick Society for the encouragement of Agriculture, Home Manufactures, and Commerce throughout the Province.

The Committee appointed to enquire and report as to the best modes of encouraging House-hold and Provincial Manufactures, and the Mechanical Arts, together with the different kinds thereof, and as to what Factories may be undertaken in New-Brunswick with reasonable prospect of success, beg to Report, that they have given considerable attention to these highly important matters—have addressed circulars of enquiry to a large number of persons in different parts of the Province, and sought information through other channels, but from the limited period of time since the appointment of the Committee, it could not have been expected that they would be able to collect such an amount of information, as to enable them to give any thing like a full, or detailed report at this meeting, upon so great a variety of subjects of such magnitude.

While it is generally admitted that Agriculture forms the ground work, or basis of a country's prosperity, it is equally apparent that a profitably employed manufacturing population is of great importance, as affording a sure and steady market for the surplus productions of the Farmer, furnishing necessary articles of use and comfort, and creating a home trade, without withdrawing the circulating medium, or exausting the resources of the country by too excessive importations.

Much of the prosperity of England is acknowledged to have resulted from her extensive, and varied manufacturing operations, it has been estimated that while the agricultural operations of that country afforded employment to but a sixteenth part of the population; the different description of manufactories gave employment to upwards of one eighth of the gross population.

Your Committee are fully of the opinion that until the principal articles of manufacture used in this Province, are much more extensively produced by our own population at home, than has heretofore been done, anything like an approach toward a state of general and permanent prosperity will not be experienced among us.

While an increased population, without adequate means of profitable employment, tends rather to burthen than benefit a country, any system that furninshes labour to an idle, or half employed population, or serves to increase a productive one, must be of the greatest advantage.

By way of illustrating the effect of importing articles from abroad as compared with their manufacture at home, we will suppose that A, and B, each possess a cash capital of one hundred pounds; A sends his money abroad and receives in return, its value in some description of manufactured article, required for use in the country, no benefit arises from the transaction, aside from the use of the article, but the small profit that results from the importation and vending the same, and the money is withdrawn from the country. On the other hand B. expends his money in manufacturing the same kind of article, or some other of equal use and value, at home. He gives employment to a number of persons who, while thus engaged, consume the productions of the Agriculturist, and also use various other descriptions of manufactured articles, likewise produced in the country by the labour of others, and the capital thus employed is retained in the country, and at hand to repeat the operation, while A must send away an additional hundred pounds every time he repeats his operation. The effect upon the prosperity of the country, of manufacturing among ourselves, must be felt to its fullest extent where the raw material can also be produced at home, but even when that has of necessity to be imported, the advantage is—still great, to the extent that the value of the manufacturered article exceeds that of the raw material.

As to the best modes of encouraging Domestic Manufactures, your Committee would suggest that a sure method would be for the people generally to purchase such articles as are already produced in the country, exclusively, whether for direct use, or for trade, instead of imported articles.

If a determination to do this should be manifested by the inhabitants, then persons engaged in manufactures, would be encouraged to increase their operations, by enlarging their establishments, and the introduction of new and improved machinery, by which they would be able to compete more successfully with the imported article, as well in respect to quality, as appearance and price, but so long as entire indifference is manifested in the matter: or what is still worse, a decided preference given to articles imported, no such encouragement is afforded to our present manufactures; nor yet to others to invest either capital or labour in new branches of manufactures, not yet tried in the country.

Your Committee would also suggest for the consideration of the Society, the propriety of offering bounties, as soon as the funds of the Society will admit of it, for the establishment of such new description of Factories, as the Society may be satisfied will be productive of advantage to the proprietors and the country at large.

Among the articles already manufactured in the country, or which your Committee believe could be done to advantage. They would mention the following:—

1st. Woolen Manufactories, for all descriptions of Woolens required for Home use.

2nd. Cotton Manufactories, for making Cotton, Cassinett or mixture of cotton and wool.

3rd. Iron Furnaces, for the manufacture of Iron in its various conditions, Castings, Stoves, &c.

4th. Paper Manufactories, for making wrapping, writing, sheathing, Printing Paper, &c. &c., and Paper Hangings.

5th. Soap and Candle Manufactories.

6th. Hat, Cap and Bonnet Manufactories.

7th. Tanneries, including the lighter and finer descriptions of Leather, not hitherto manufactured in the Province.

8th. Leather Manufactories, for Boots, Shoes, Harness, Saddles, Whips, Trunks, &c. &c.

9th. Potteries of all sorts for Home use.

10th. Brick and Lime Kilns.

11th. Hardware and Cutlery Manufactories for all kinds of iron vessels, implements and edged tools.

12th. Rope Manufactories or Rope Walks.

13th. Manufactories for Waggons, Carriages and other vehicles.

14th. Manufactories for Wooden Wares, including Household Furniture, &c.

15th. Manufactories for all kinds of Agricultural Implements.

16th. Stone Manufactories for Grind and sharpening Stones, Grave Stones, Building Stones, &c.

17th. Fulling Mills for dressing Homespun and other Cloth.

18th. Nail Factories.

19th. Cooper Manufactories for the making of all kinds of Pails, Tubs, Tierces, Barrels, half Barrels, Firkins and other Casks, and especially those fit for the exportation of Beef and Pork.

20th. Factories for Pot and Pearl Ash.

The largest portion of the different descriptions of manufactured leather used in the Province has been for a considerable time produced at home, still too much is imported. A reference to the returns will show that in 1848 manufactured leather to the value of upwards of eight thousand pounds sterling was imported into the Port of Saint John and its out Bays, exclusive of the extensive importations of Shoes, Boots, Harness, Saddles, &c., while there was but about one thousand pounds worth of hides, or the raw material, imported during the same period. In 1849 there was leather

imported to the value of upwards of nine thousand pounds sterling —while the importation of hides did not amount to fourteen hundred pounds, sterling, whereas the raw material alone, as far as may be required in addition to what the country produces, should be imported, and the use of imported manufactured articles discountenanced.

Again wooden manufacturs, such as Farming utensils, Household Furniture, and articles of various kinds, are annually imported into the Province to a large extent, while our country abounds with every description of wood required for such purposes, of comparatively little value. The same remarks may be made in reference to our castings, and a variety of other articles. Shut out as our manufacturers are from other markets, by high protective tariffs, your Committee conceive it to be exceedingly unwise to divide our own limited market, with the manufactures of other countries.

The manufacture of Soap and Candles has been carried on to such an extent in the Province for a few years past, as to almost entirely supercede the use of the imported article, in 1848 the value of these articles imported into the Port of Saint John and its out Bays, did not exceed nine hundred pounds sterling, while the raw material, tallow, was imported during that year to the value of nearly six thousand pounds sterling, in addition to what was produced in the country.

Your Committee are pleased to learn that a *Pot Ash* Factory is about to be established in Fredericton, and trust that the undertaking will receive due attention and encouragement from the members of this Society, and the public generally.

Although this undertaking may be viewed as a small matter, still your Committee regard it as a move in the right direction, and entitled to consideration, they find that in the year 1848 Pot and Pearl Ashes were imported into the Port of Saint John and its out Bays, to the value of nearly one thousand pounds sterling, although vast quantities of ashes are thrown to waste in the country, not even being applied to the land as manure.

With respect to Paper Factories, as well as other Factories, which your Committee are obliged to pass over at this time, they would remark that they have taken the requisit steps to procure information, which may be submitted at a future time.

The manufacture of woolen and cotton goods, is perhaps as well adapted to promote the welfare of the Province as that of any other article, to which your Committee could invite attention.

The Province is annually drained of many thousands of pounds for the purchase of expensive Broad Cloths, and other articles of woolen manufacture, whereas an article better adapted to the use of the country might be furnished at home at a much less cost: our country is unquestionably well adapted to the raising of sheep, and consequently the production of wool, of an excellent quality, vast quantities of which have hitherto been sent away from the country on the skins, at low rates, to be manufactured in other countries, while we have not only been importing our cloths from abroad, but actually receiving back the skins in the shape of morocco, so-called, and other Fancy Boots, Shoes &c., paying therefor double the amount originally received for the skins and wool together, and our population leaving the country for want of employment.

The only Woolen Factory at present in operation in the Province, where every part of the process of manufacturing cloth from the wool is performed, is that of the Messrs. Snow in Kings' County.

Your Committee have examined samples of cloth produced at this establishment, and consider them better value, at the prices charged than anything they have seen from abroad, not only as a strong article for ordinary use, but also samples of a texture sufficiently fine for the wear of any class of persons in the country, or on any occasion.

The same remark may be made in reference to several smaller Factories in different parts of the Province, where the process is attended to, except the spinning and weaving.

You Committee learn that the Messrs. Snow, are enlarging their establishment, and introducing steam power, in order to be able to meet any extent of demand that may arise for their productions. The manufacture of Cotton is probably calculated to furnish employment to as large a number of persons as any other that can be named, especially to females and boys, who are not adapted to work of a more laborious character, and for want of such employment at home, are compelled to seek it broad, or remain in idleness.

Your Committee are aware that they will be met at this point with the usual objections, that in the manufacture of an article where labour constitutes so large a portion of its value, we cannot compete with the British Manufacturer, who procures labour at so reduced a rate, nor yet with manufactures in the United States, where not only the raw material is grown, but bread stuffs, &c. produced to such an extent among themselves.

With regard to the first objection your Committee would remark, that although labour is much lower in England than in this Province, still in some other respects the advantages are on our side, as for instance the extensive water privileges, sites for erections, &c., which can be procured here for a mere trifle, would there cost a very large sum. Again in addition to saving the entire cost of importing the manufactured article from England such as commissions, insurance, freight, &c. The raw cotton can be produced here at less cost than in England, inasmuch as our timber ships going from England to a southern port for a cotton freight, could bring a cargo to Saint John with one-third the length of voyage that would be required to go to England, and would then be here to take a cargo of lumber to Great Britain, instead of having to recross the Atlantic in ballast, as they frequently do to procure such cargo.

But a full and complete answer to this objection is to be found in the fact that the manufacturers of cotton in the United States have been able to compete successfully with those of Great Britain. It is true that the markets of the United States were secured to her own manufactures by high protecive duties, which no doubt tended to facilitate the introduction and extension of factory operations in that country, but it appears by statistical information published both in England and the United States as easily as the year 1831 when cotton factories had been but recently established in the latter country, that in all the coarser descriptions of cotton fabrics the American manufacturer was competing with the British in a large number of Foreign Markets, such as *China, Bengal, Chilli, Malta, the Cape of Good Hope*, and other places, and in several of those places the use of the British article was entirely superceded by the American, and such is now the case, to a consideracle extent, in reference to New Brunswick, for since the duties here on British and Foreign Goods were equalized, under the non-differential instructions from the Home Government, a large portion of the cotton goods used in this Province, have been imported from the United States, instead of from Great Britain as before, and is constantly increasing.

In reference to the second objection your Committee have to remak that although cotton is grown, and breadstuffs produced in abundance in the United States, it must be borne in mind that they are principally produced in the Southern and Western States, While the Factory operations under consideration were for a long time almost exclusively confined to the North-eastern States, and are still so to a very great extent, to which the transfer of either

cotton or bread-stuffs from the South or West is equally as expensive as to New Brunswick; indeed freights can frequently be procured from Southern ports, or even from New York, for Saint John, at lower rates than for Boston or any other port in the Eastern States, from the fact that British vessels sailing to a Southern port for a cargo of cotton for Great Britain, and failing to procure it, as often happens, are obliged to come to Saint John in ballast, and take a timber freight to England, as by the existing Navigation Laws of the United States, British vessels cannot take a cargo from one port to another in that country.

Again wages are higher in the United States than in this Province, as appears from the circumstance of so many persons leaving our country for the United States, where they find ready employment, especially that of some fifty of our young women taken away at a time to labour in the Cotton Factories of that country, and your Committee are informed that the proprietors of these establishments are still looking to this Province for a further supply of labour, that arrangements are now in progress to procure from New Brunswick some 250 or 300 females in the course of the coming season for that purpose.

With these facts before us, your Committee would ask the members of this Society, and the public generally, whether the time has not now come for the establishment of Cotton Factories among us. Whether the interests of the country do not call for the erection of such establishments, to an extent at least sufficient to produce all the courser descriptions of Cottons required for home use.

Another objection urged against undertaking such Factories is, that we have no capital in the country for such purposes. In reply, your Committee would say, that the same capital that would build a ship, or erect two or three saw mills, would establish a Cotton Factory, upon a small scale, still the former have been engaged in to a ruinous extent, and the latter totally neglected.

Had the Legislature, some years ago, offered a reasonable amount of bounty for the first Cotton Factory that should be put in operation, with some given amount of capabilities, and thereby drawn the attention of capitalists to the subject. Your Committee have no doubt but ere this, such Factories would have been in active operation, to a limited extent at least, in this Province, affording employment to the young women of our country, and others at home, instead of being forced to seek a livelihood in a Foreign land, exposed among strangers, far from their friends and homes, in manufacturing articles for our own consumption.

Manufacturers in the North-eastern States have no advantage over this Province in the prices of food, as they are as dependent on imported bread-stuffs as we have been, and more so than we need be with such an improved system of Agriculture as it is hoped will ere long be adopted generally in this Province, even at the present time the expense of living is by no means less, in those States than with us.

It is urged by some that our Farmers cannot supply the present population of the country with food, hence should the population be increased by manufacturing operations, the importation of food must be increased in the same proportion, to this your Committee reply, that nothing will so effectually encourage the Farmer to extend his operations as a steady cash market at home for his surplus productions, and this can only be secured by a larger manufacturing population, it must be admitted that our lumber business has heretofore furnished a considerable market for certain articles of farm produce, but as that branch of business has been extremely fluctuating, and frequently ruinous, it has proved to be a very unsafe source for the agriculturist, or any other class of persons to depend on.

Should we even be obliged to import from abroad a portion of our wheat flour, it is but one item among the many articles of food required, and which may be produced to advantage in the Province, to any extent that the demand may call for.

Your Committee have frequently heard the prosperity of the State of Maine spoken of, as contrasted with that of New Brunswick, and would submit for consideration, whether the contrast is not attributable, in a great measure, to the want among us of Manufacturing operations, so extensively prosecuted, in the adjoining State, as it is well known that the agricultural capabilities of that State will not at all compare with those of our Province.

The following statistical account of the Manufactures in the State of Maine is given for 1840, and it may be supposed that those operations have greatly increased since that period.

The value of home made, or manufactures in the farmers, or other houses was $801,397. There were 21 Woolen Manufactories employing 532 persons, producing goods to the value of $412,336, and employing a capital of $316,105.

6 Cotton Manufactories, with 29,736 spindles, employing 1,414 persons, producing goods to the value of $970,397, with a capital of 1,398,000 dollars. 16 Furnaces, producing 6,122 tons of cast iron, and one forge for bar iron, employing 48 persons, and a capital of $185,950.

15 persons employed in producing 50,000 bushels of salt, with a capital of $25,000.

280 persons produced granite to the value of $98,720

6 Paper Factories, employed 89 persons, producing to the value of $84,000, with a capital of $20,600.

37 persons manufactured Tobacco to the value of $18,150, with a capital of $6,050.

Hats and Caps were made to the value of $74,174, and straw Bonnets to the value of $8,807, together employing 212 persons, and a capital of $28,050.

395 Tanneries employed 754 persons, and a capital of $571,993.

530 other Manufactories, such as saddleries, &c., producing articles to the value of $433,846 and employing a capital of $191,717.

21 Potteries employed 31 persons, and produced articles to the value $20,850 with a capital of $11,353.

864 persons manufactured Brick and Lime to the value $261,586, with a capital of $300,822.

339 persons producing Machinery to the value of $69,752

119 persons produced Hardware to the value of $65,555.

4 Rope Walks employing 34 persons, producing cordage to the value of $32,660, with a capital of $33,000.

779 persons produced Waggons and Carriages to the value of $174,310, and employed a capital of $75,012.

Flour, Saw and other Mills employed 3,630 persons producing manufactures to the amount of $3,161,590, with a capital of $2,900,592.

Ships were built to the amount of $1,844,902.

Furniture was manufactured to the amount of $204,875, employing 1,453 persons and a capital of $668,558.

34 Brick and 1,674 wooden buildings were erected, employing 2,482 persons, and cost $733,067.

34 Printing Offices, 14 Binderies, 3 Daily, 2 semi-weekly and 30 weekly Newspapers, and 5 Periodicals, employing together 197 persons and a capital of $68,200.

The whole amount of capital employed in the State, was by official returns, estimated at $7,144,224.

Such were the manufacturing operations of the State of Maine ten years ago. And your Committee can see no good reason why the principal part of the manufacturers enumerated in the foregoing statement may not be produced to advantage in this Province, as far, at least, as respects our own consumption.

In conclusion your Committee would remark that they intended to give an estimate of the cost of certain descriptions of Factories.

Such is a Cotton Factory. Paper Mill &c. The number of persons such establishments would give employment to, annual cost of conducting them, with the probable extent of demand for the articles produced for home use, profits that would arise from the operations &c., but this could not be done without the aid of statistical accounts from other places—which the Committee could not avail themselves of in time for this report.

Respectfully submitted,

JOHN T. SMITH,
Chairman of the Committee.

Fredericton, April 3rd., 1850.

To the New Brunswick Society for the encouragement of Agriculture, Home Manufactures, and Commerce throughout the Province.

The Special Committee appointed in January last at the General Meeting of the New Brunswick Society for the encouragement of Agriculture, Home Manufactures, and Commerce throughout the Province, "to enquire and Report to the Society on the best modes of imparting information to the farming and working classes in this Province, and the most efficient way of disseminating Agricultural and other useful information among such classes," has the honor to Report.

Deeply impressed with a sense of the vast importance of the subject thus submitted to their consideration, and feeling the utmost anxiety to afford the best practical solution to the question proposed, the Committee have used every exertion to obtain such information as might enable them to offer to this Society, and through it to the whole Province, the most useful and at the same time the most available information, for the furtherance of the objects in question, but they have encountered numberless and in many cases insurmountable difficulties in the prosecution of their task—difficulties such as must ever attend the steps of Pioneers in an unknown and unexplored track, and which they mention here merely as some apology for the imperfect manner in which they have executed the duty entrusted to them.

In a new country and with a thinly scattered population, it is almost impossible to employ any of those means, or to utilize any of those resources, which are so advantageously applied in Europe to the dissemination of information among all classes. Mechanics' Institutes, Book Clubs and Reading Societies, which are so useful in large towns and in populous neighbourhoods, would do nothing whatever for the hundreds or thousands in this Province, who, residing in remote localities, would find it impossible to avail themselves of their advantages, and since it is evident that no plan which has hitherto been tried can effect the good required, the Committee have felt it to be their duty to sketch out some new method which may enable the farmer and the working man to obtain the knowledge most useful to him, and to spend the long evenings of a dreary winter in a pleasing and profitable manner.

And first as to the nature of the information to be imparted.

It is the apparently well founded opinion of those who are most competent to judge, that the Province of New Brunswick possesses a

great deal of excellent land which is somewhat indifferently cultivated, and the readiest and best means of increasing the prosperity of its inhabitants, and of attracting respectable and intelligent Immigrants from the Old Countries, would be to improve the present defective system of cultivation and to develop the resources of the soil in such a manner, as would afford the most satisfactory proofs of its abundant fretility under skilful management, and thus convince even the most sceptical, that neither the climate nor the soil are the real obstacles to the Farmer's success but that his want of information as to the best method of encountering the one and of tilling the other must be so regarded.

Sound practical plain information on all subjects connected with Agriculture is therefore the chief object to be attained, and in order to effect this the Committee recommend the preparation of a manual to be entitled the Book of the Farm, which, published in a cheap form should embrace as succinctly and as intelligibly as possible the best and soundest instruction on such points as the following:—

The nature and qualities of different soils.
The proper rotation of Crops.
The collection and preparation of Manures.
The draining of Land.
The breeding, management, feeding, &c., of Cattle.
The best method of keeping farm accounts.
The manufacture of Dairy produce.

And generally on all subjects connected with, or appertaining to, the skilful management of a Farm, to which should be added so much of Agricultural Chemistry as would teach the Farmer in what way and in what respect different crops exhaust the soil, and in what way and in what respect different manures renew its fertility.

This manual or Book of the Farm, should then be placed in the hands of every Parish School Teacher throughout the Province and the necessary steps should be taken to induce the Government to make it a "Text Book" for the use of those Schools.

This would secure a vast amount of valuable information to the rising generation and in order to render it available to the Farmers and working men, some intelligent Teacher should be selected in each locality to whom could be entrusted the task of delivering short but comprehensive Lectures throughout the winter, and who should previously have received a sufficient amount of instruction from a competent person employed by the Society for that purpose, and who would teach him how to perform such simple experiments as would best illustrate the subject, and for the performance of which it would

be desirable to furnish at small expense, the needful apparatus to each Teacher so selected.

These Teachers would, as corresponding members, be required to furnish semi-annual Reports to the Society of the results of their exertions, and there is little doubt that the importance of the position they would thus acquire would sufficiently remunerate them for their extra labour until the Society should be in a position to offer some additional recompence.

A similar course could easily be adopted for disseminating information on various other subjects, such as History or Geography for each of which a course of familiar Lectures might be prepared, to be delivered in like manner by the Teachers, who would amenable as many of the inhabitants of each district as possible and thus form a reading society which would immediately prove most beneficial to all its members, and serve as a nucleus for the future establishment of a district society or Farmer's Club, which it would be advisable to supply with a small Library of Books on Agricultural subjects, and in which all matters connected with the cultivation of the land might be freely discussed. The circulation of some of the cheap American Periodicals on Farming, such for instance as the Albany Cultivator, would also prove of very great service, but better than all would be the publication by the Society of a Farmer's Journal which should contain an account of the management and cultivation of every description of land in all parts of the Province, with ample details of experiments for improving the soil, of new systems of tillage, of plans adopted for the better breeding and fattening of Cattle and in short of all matters intersting to the Agriculturtst. Such a Journal as this would supply the Farmer with a faithful account of the labours of others, and of the results of those labours, and serve as an unerring guide for the direction of his own efforts to cultivate his land and to manage his Farm to the best advantage.

Such is the opinion of the Committee, are the only plans that can at present be adopted for disseminating Agricultural and other useful information among the farming and working classes in the Province. They offer these suggestions as the best that have occurred to them, and in the hope, that if not immediately available, they may at all events serve as hints to others better acquainted than they can possibly be with Agricultural affairs, and thus obtain for the Society their assistance and co-operation.

The Committee cannot conclude without calling the attention of the Society to the establishment of a self-supporting Agricultural School and Model Farm—not as recommending its immediate adop-

tion, but as a powerful means at some future time and under judicious management of supplying the Province with a constant succession of skilful and intelligent Farmers and of raising the cultivators of the soil to that station which the importance of their avocations and the real dignity of labour entitle them to fill.

All of which is respectfully submitted,

M. d'AVRAY, Chairman.

NOTE.—The following minutes were accidentally omitted, previous to the setting of the Reports :—

NEW BRUNSWICK SOCIETY,

For the encouragement of Agriculture, Home Manufactures and Commerce, throughout the Province.

Pursuant to notice a meeting of the New Brunswick Society for the encouragement of Agriculture, Home Manufactures and Commerce throughout the Province was held at the County Court House on the 23rd March, 1850.

The President, Professor Robb took the Chair.

In the absence of Mr. James S. Beek, Mr. John A. Beckwith acted as Secretary.

The President of the Society stated that the meeting was called under the 6th rule of the Society which provided that a general meeting should be held during the sitting of the Legislature, and that one of the special committees nominated at the general meeting in January, was, he believed prepared to report.

David S. Kerr, Esq., from the committee appointed to report at this meeting on the best cash markets for Beef and Pork, and also the most practical and effective modes for putting up the same fit to command such markets, and if necessary to prepare and submit a draft of a Bill to the Legislature for that purpose, read a most able and lucid report on the subject and exhibited the Draft of a Bill, which had been submitted to the Legislature in accordance therewith, wherefore it was ordered, that the said report be accepted.

The following resolutions were then submitted to the meeting in able and appropriate speeches from the movers and in some instances, by the seconders, and were all passed unanimously.

By James Brown, Esq., seconded by the Hon. J. W. Weldon.

1st. *Resolved*, That in the opinion of this Society the business of Agriculture in New Brunswick ranks first in the scale of import-

ance, that upon its resources and improvements, the merchant, the mechanic, the manufacturer and all other members of society are materially dependent for subsistence and wealth.

2nd. By the Lord Bishop of Fredericton, seconded by the Hon. the Master of the Rolls.

Resolved, That in the opinion of this Society, the encouraging and extending the manufacturing interests in every part of New Brunswick, will materially tend to introduce and accumulate capital in the Province, will encourage and draw to our shores and retain many classes of useful labourers, will afford additional markets, and otherwise benefit our farmers; and largely contribute to increase the wealth and raise the character of New Brunswick.

3rd. By David S. Kerr, Esq. seconded by Mr. Editor Hill.

Resolved, That as it is highly desirable, to encourage and improve the mercantile interests of this Province, by basing them upon a more sure and prosperous footing than now exists, it is the opinion of this Society, that the advancing of Agriculture and manufacturers in New Brunswick, and thereby introducing additional capital and producing additional commodities of a permanent and profitable description available to our merchants for the supply of the different markets, will greatly conduce to the attainment of the desired end.

4th. By the Hon. Harris Hatch, seconded by C. L. Hatheway, Esquire.

Resolved, That the resources and productions of this Province have been hitherto much neglected, and all classes should unite in a vigorous effort to make those resources and productions more available and profitable.

5th. By the Hon. Edwin Botsford, seconded by D. S. Kerr, Esquire.

Resolved, That this Society is highly gratified with Professor Johnston's account of the Agricultural capabilities of this Province, and its resources generally, and is cheered with the prospect that the Legislature and the people will unite their efforts to make those capabilities and resources available.

6th. By Andrew Barbarie Esq., seconded by James Taylor Esq.

Resolved, That this Society rejoices in the cheering results of superiority in the capabilities of New Brunswick, displayed in the Lecture of Professor Johnston, in his comparison of the general average of Wheat, Barley, Oats, Rye, Potatoes and Turnips, produced in New Brunswick, with the like average of similar articles, yielded in the Canadas and the most productive portion of the United States.

7th. By Mr. J. A. Beckwith, seconded by D. S. Kerr, Esq.

Resolved, That whilst it appears by Professor Johnston's report that this Province on an average possesses capabilities equal and even superior to the Canadas or the States, for producing food, viz: Barley, Oats, Rye and Potatoes, the price of the most of those articles available for the farmer in the New Brunswick Market, is on an average double the price in similar Home markets in the Canadas, or the United States.

8th. By Robert Chestnut, Esq., seconded by Mr. W. Watts, Sr.

Resolved., That this Society receives with gladness, the views of Professor Johnston expressed by him at the St. John Institute whilst dealing with the objection of our winters, that after the best examination and comparison he could make he was of opinion that there was nothing in the circumstances of this Province, so different from those in prosperous countries, especially the Canadas and North Eastern States, as to diminish the profits of the New Brunswick Farmer in comparison with those in such other countries.

9th, By James Brown Esq., seconded by Mr. Editor Hogg.

Risolved, That Oats and Barley which can be produced in New Brunswick, to an extent unsurpassed by any other part of the world, are calculated to be great staple commodities for food and profit in the Province, and that the increased production of Oats and Barley, the extensive erection of Oat and Barley Mills, and the more extensive and general use of Oat and Barley meal for family, and other uses, should receive every possible encouragement from the people of this Province.

10th. By James Taylor Esq., seconded by H. J. Hansard, Esq.

Resolved, That in the opinion of this meeting the interests of Agriculture, Home Manufactures, and Commerce, would be greatly promoted and the utility of this Society much enhanced, by the holding of an annual Show and Fair in some suitable and convenient place in this Province not of exhibition merely, but for the sale and exchange of every description of the productions of this country.

JOHN A BECKWITH,
Acting Secretary.

NEW BRUNSWICK SOCIETY,

For the encouragement of Agriculture, Home Manufactures and Commerce, throughout the Province.

This Society held its regular quarterly meeting agreeably to the Constitution, on the evening of the 3rd. instant and was principally occupied in hearing the Reports of the Special Committees appointed on the 31st January last. The Reports on the best mode of accumulating, preserving, and applying the different kinds of manures —on the raising of turnips, mangold wurtzel, carrots and parsnips, —on the differnt kinds of seeds for general use,—on the best modes of fattening cattle and hogs—on household, and domestic manufactures, and the kind of factories which might be undertaken in New Brunswick with success and on the best modes of imparting and disseminating agricultural and other information to the farming and working classes of the Province were all received and adopted by the Society. Those Reports, which reflect great credit on the ability and industry of their authors, and are calculated to be of immense service to the interests of this Province, the Society resolved to publish without delay, together, with the one previously delivered on the best Cash markets for beef and pork, and the best modes of making the same marketable—in a 1000 Copies for distribution to County Agricultural Societies and otherwise. The following Committees were then appointed.

SPECIAL COMMITTEES.

1st. *Resolved*, That the Vice President of St. John, and the Vice President of Sunbury be a special committee, to enquire and report to this Society at its quarterly meeting in July next on the utility of raising flax in diffrerent parts of this Province not only for the use of domestic manufactures but also for the production of linseed and the making of oil cake to aid in fattening cattle for market.

2d. *Resolved*, That J. A. Beckwith and William Greave be a special committee to enquire and report to this Society at its quarterly meeting in July next on the best modes of improving the breed of cattle throughout the Province.

3rd. *Resolved*, That William Greave be a special Committee to enquire and report to this Society at the quarterly meeting in July next on the best modes of improving the breeds of hogs of this

Province, and the most profitable descriptions that can be selected to make pork for home use and exportation.

4th, *Resolved*, That William Greave and John T. Smith be a special committee to enquire and report to this Society at the quarterly meeting in July next, on sheep husbandry, and the description of sheep best adapted to this country especially for manufacturing purposes.

5th. *Resolved*, That the Vice President of Sunbury be a special committee to enquire and report to this Society at the quarterly meeting in July next on the best modes of facilitating emigration in this Province.

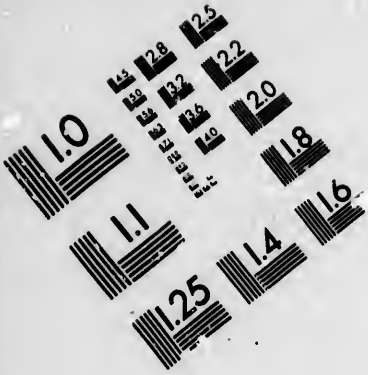
6th. *Resolved*, That J. A. Beckwith, Henry Fisher and James S. Beek, Esqrs. be a special committee to enquire and report at the quarterly meeting in July next whether an Agricultural periodical or journal can be got up in this Province and carried on with success.

7th. *Resolved*, That John T. Smith, Samuel W. Babit, James Johnston, and James S. Beek, Esqrs., be a special committee to enquire and report to this Society at the quarterly meeting in July next, and submit plans and estimates for the erection of a cotton manufactory in York, Westmorland, or any other County or Counties of this Province, together with the most appropriate dimensions, the number of spindles and the amount of capital required for such erection, as also the number of laborers—the amount of their wages and the additional capital required per annum for the efficient carrying on of such factory, also the amount of the manufactured articles produced per annum and the available markets at home and elsewhere therefor, and the probable losses and profits of such factory.

8th. *Resolved*, That James Hogg be a special committee to enquire and report at the quarterly meeting in July next, on the erection of a paper factory, with plans, estimates, prices, and returns as above.

9th. *Resolved*, That Dr. Robb, the President, Robert Chestnut, Vice President for York, residing in Fredericton, David S. Kerr, John A. Beckwith, and James Taylor, Esqrs. of York County be a special committee, and with power to add to their number, to enquire and report to this Society, at its quarterly meeting, in October next, on

1st. What Oat, Barley, and Flour Mills, respectively, there are now in the County of York, and what additional Mills of either sort are required, or may be set up and encouraged in such County with advantage, together with suitable and convenient sites therefor.



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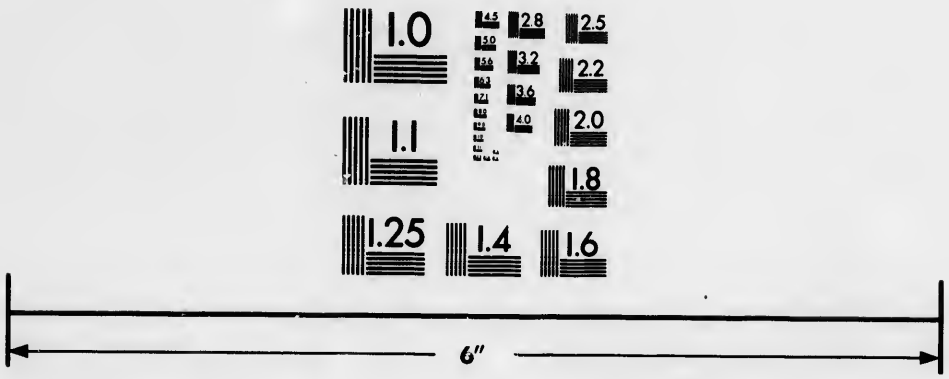

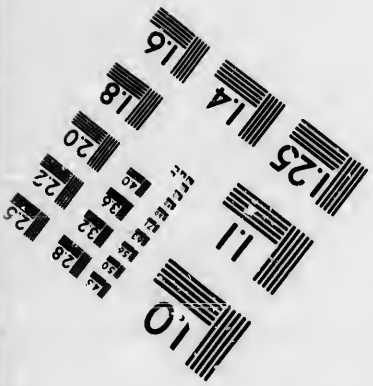

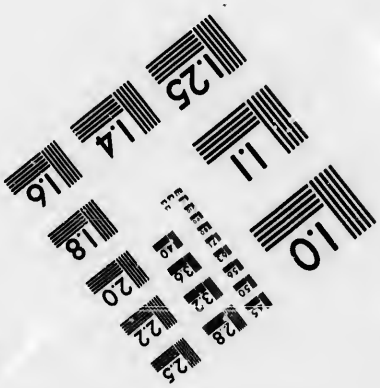

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2nd. What Household and Domestic Manufactures are now principally attended to in the County, (such as carding, spinning, and weaving of Cotton, Flax, and Wool, for wearing apparel, bedding, toweling, table linen, &c., soap, candles, butter, cheese, carpeting, straw hats, straw bonnets, knitting, needle work, &c. &c., and the probable amounts thereof, respectively, and how the descriptions thereof, may be best encouraged, increased, and made profitable in such County.

3rd. What Manufactories respectively, there are now in operation in the country, and what additional manufactories, (such as

1st. Woolen Manufactories, for all descriptions of Woolens required for Home use.

2nd. Cotton Manufactories, for the same, and exportation.

3rd. Iron Furnaces, for the manufacture of Iron in its various conditions, Castings, Stoves, &c.

4th Salt Manufactories.

5th. Paper Manufactories, for making wrapping, writing, sheathing, Printing Paper, &c., and Paper Hangings.

6th. Hat, Cap and Bonnet Manufactories.

7th. Soap and Candle Manufactories.

8th. Tanneries.

9th. Leather Manufactories, for Boots, Shoes, Harness, Saddles, Whips, Trunks, &c. &c.

10th. Potteries of all sorts for Home use.

11th. Brick and Lime Kilns.

12th. Hardware and Cutlery, Manufactories for all kinds of iron vessels, implements and edged tools.

13th. Rope Manufactories or Rope Walks.

14th. Manufactories for Waggons, Carriages and other vehicles.

15th. Manufactories for Wooden Wares, including Household Furniture, &c.

16th. Manufactories for all kinds of Agricultural Implements.

17th. Stone Manufactories for Grind Stones, Grave Stones, Building Stones, &c.

18th. Fulling Mills for dressing Homespun and other Cloth.

19th. Nail Factories.

20th. Cooper Manufactories for the making of all kinds of Pails, Tubs, Tierces, Barrels, half Barrels, Firkins and other Casks, and especially those fit for the exportation of Beef and Pork.

21st. Potash.) May be set up in such County with a reasonable prospect of success, and the kind of encouragement they should respectively have

4th. Any other information from County Agricultural Societies or otherwise, calculated to advance the interests of the Province, in Agriculture, Home Manufacture and Commerce, which such Committee may consider it important to communicate.

CHARLOTTE.

10th. *Resolved*, That the Honorable Harris Hatch, James Brown, Esq., Vice President for Charlottee, Joseph Walton, David Moat, John Mann, and Samuel McFarlane, Esquires, of Charlotte County, and John A. Beckwith, Esq., of York County, be a special committe, with power as aforesaid to enquire and report as above mentioned in relation to the County of Charlotte.

GLOUCESTER.

11th. *Resolved*, That Francis Ferguson, Esq., Vice President of Gloucester, Joseph Read, John Woolner, Henry W. Baldwin, and Samuel L. Bishop, Esqrs., of Bathurst, and David S. Kerr, Esq., of Fredericton, be a special committee, with power as aforesaid to enquire and report as above mentioned in relation to the County of Gloucester.

KINGS.

12th. *Resolved*, That the Rev. Wm. E. Scovil, Allayne C. Evanson, Esq., Doctor Earle, and Captain Otty, of King's County, and Henry Fisher, Esq., of Fredericton, be a special committee, with power as aforesaid to enquire and report as above mentioned in relation to the County of King's.

SAINT JOHN.

13th. *Resolved*, That Robert D. Wilmot, R. Jardine, Vice President of Saint John, Hon. John R. Partelow, Isaac Woodward, and B. Ansley, Esqrs. of Saint John County, and Robert Chestnut, Esq. Vice President of York, residing at Fredericton, be a special committee, with power as aforesaid to enquire and report as above mentioned in reference to the County of Saint John.

RESTIGOUCHE.

14th. *Resolved*, That Andrew Barberie, D. Stewart, Vice President for Restigouche Adam Ferguson, Doctor D. R. Carter, James S. Morse, and John Duncan, Esquires, of Restigouche, and James S. Beek, Esq., of Fredericton, be a special committee, with power as aforesaid to enquire and report as above described in reference to the County of Restigouche.

WESTMORLAND.

15th. *Resolved*, That the Hon., the Vice President of Westmorland, the Hon. Amos E. Botsford, John Robb, Joseph Avard,

and Albert J. Smith, Esquires, of Westmorland County, and D. S. Kerr, Esq., of Fredericton, be a special committee, and with power as aforesaid to enquire and report as above described in relation to the County of Westmorland.

SUNBURY.

16th. *Resolved*, That Geo. Hayward, Thomas O. Miles, Calvin L. Hatheway, Vice President for Sunbury, and the Rev. J. M. Sterling, of Sunbury, County, and John T. Smith, Esq., of Fredericton, be a special committee and with power as aforesaid to enquire and report as above mentioned in reference to the County of Sunbury.

QUEENS.

17th, *Resolved*, That the Rev. Samuel Scovil, Wm. Foshay, Vice President of Queen's, Thomas Gilbert, John Earl, Thomas J. Hewlet, George W. Hobin, Ebenezer L. Burpe, and D. Palmer, Esquires, of Queen's and Henry Fisher Esquire, of Fredericton, be a special committee, and with powers as aforesaid to enquire and report as above-mentioned in reference to the County of Queen's.

NORTHUMBERLAND.

18th. *Resolved*. That George Kerr, Esq., Vice President for Northumberland, John Wright, James Caie, Hon. Joseph Cunard, John A. Street, Edward Williston, Allen A. Davidson, John Porter, William Carman, Alexander M'Laggan, and Roderick M'Leod, Esq., of Northumberland, and David S. Kerr, Esq, of Fredericton, be a special Committee and with power as aforesaid to enquire and report as above mentioned in respect to the County of Northumberland.

KENT.

19th. *Resolved*, That David Wark, James Long, John D. Ford, Francis McPhelan. William S. Caie, and James A. James, Esqrs. of Kent, and David S. Ker, Esq., of Fredericton, be a special committee and with powers as aforesaid to enquire and report as above mentioned in relation to the County of Kent.

CARLETON.

20th. *Risolved*, That Robert A. Hay, James R. Tupper, Edwin Jacob, Joseph Rydeout, James Jones, Hugh Davis, Nelson Baker, James A. Phillips, William T. Baird, Esqrs. of Carleton County, and John A. Beckwith Esq., of Fredericton, be a special committee and with power as aforesaid to enquire and report as above set forth in reference to the County of Carleton.

ALBERT.

51st. *Resolved*, That William H. Steves, John N. Chapman, Elisha Peck, John Wallace, Isaac Turner, George Calhoun, Thos. B. Moore, Esqrs., of Albert, and D. S. Kerr, Esq., of Fredericton, be a special committee and with power as aforesaid to enquire and report as above mentioned with respect to the County of Albert.

VICTORIA.

22nd. *Resolved*, That Benjamin Beveridge, George H. Giberson, Leonard R. Coombs, A. W. Raymond, Francis Tibbits, P. C. Amireaux, William M. M'Lauchlan, Esqrs., of Victoria, and J. S. Beek, Esq., of Fredericton, be a special committee, and with power as aforesaid to enquire and report as above described in relation to the County of Victoria.

JAMES S. BEEK, Secretary.

OMISSION.

Page 13, in the list of Vice Presidents, Northumberland—George Kerr, Esquire.

NEW BRUNSWICK SOCIETY,

For the Encouragement of Agriculture, Home Manufactures and Commerce, throughout the Province.

SIR EDMUND W. HEAD, BART., PATRON.

The annual meeting of this Society at the County Court House on Wednesday the 8th January, continued by the Meeting of New Year's day, was held agreeably to adjournment. The President took the chair, and pursuant to notice given at the meeting in October last, moved an alteration in the third article of the Constitution by reducing the additional number of the Executive Committee from twelve to five, and the Quorum from five to three, which alterations were seconded and unanimously adopted; agreeably also to notice, he moved an alteration in the sixth article of the Constitution, by doing away with the June and October Meetings which was seconded and agreed to. The President then, as Chairman of the Executive Committee submitted an annual report of the Society's doings for the information of the public, which was received with approbation and ordered to be printed:—the following is a Copy:—

GENTLEMEN,—At the last meeting of the Executive Committee of this Society it was suggested that as Chairman of the Executive Committee I should prepare the annual report and address, before laying down the office which I have the honor to hold in the Society. I can hardly say that I have had sufficient leisure to do this in detail, but fortunately, great part of it was already done to my hand in the first report of the Society published in July last. After that Report was published it was generally distributed throughout the Country, and at the same time occasion was taken to solicit subscriptions in aid of the Society: Mr. Kerr, whose professional duties took him into most of the Counties, called public meetings in almost all of them and organized local Committees in some of them for co-operating with the parent Society. By that means, and by subsequent correspondence with local Committees, upwards of £100 have been collected, and the Provincial Grant of £200 made contingently to the collection of £100 by private subscription has been secured. Our expenditure for the last year (chiefly for printing) as will be seen by the Treasurer's report just submitted, has amounted to £52 10s 1d and the balance now to the credit of the Society amounts to £247 9s 11d.

An abstract of the proceedings at the various County meetings is given below, and this will be heard with pleasure by all interested in the Society.

ALBERT.—A meeting was held at Hopewell on the 19th of July T. Gilbert, Esq. V. P., Chairman, and T. B. Moore, Esq., Secretary. Mr. Kerr and various gentlemen addressed the meeting re-

garding the objects and constitution of this Society,—whereupon Resolutions were passed in favor thereof, and highly commending its published Reports:—A subscription list was opened, £5 were immediately subscribed and Col. S. Clark has since paid contributions to amount of £3 5s.

WESTMORLAND.—A meeting was held in the Temperance Hall of Dorchester on the 26th of July. Hon. E. B. Chandler, Chairman, and Dr. C. S. Theal, Secretary. After various addresses, resolutions were passed commendatory of the Society, and a subscription was opened to aid in carrying out its objects: the subscriptions received amount to £2 5s.

KENT.—Owing to an unusual press of business before the Court in Circuit at Richibucto it was found impossible during Mr. Kerr's stay in that place to get an evening disengaged for a public meeting and consequently nothing was done at that time: Mr. Layton subsequently reports that the County Agricultural Society has declined to make any gant of money to this Society, as this was the first year of their existence, and their funds were required for local purposes. He remits 5s as his own subscription.

RESTIGOUCHE.—A meeting was held in the Court house at Dalhousie on the 27th of August, of which D. Stewart, Esq. V. P. was chairman, and James S. Morse, Esq., Secretary. Mr. Kerr addressed the meeting on behalf of the Society, and after several speeches by gentlemen of the County, resolutions were passed in favor of the Society, and highly commending the measures adopted by it for the general welfare of the Province. A subscription list was opened, and contributions to the amount of £6 5s have been paid to the Treasurer. The Secretary of the County Agricultural Society subsequently announced that that body declines subscribing to the Society on account of the difficulty of collecting their own funds: he offers however to co-operate and afford all needful information.

GLOUCESTER.—A meeting was held in Bathurst Court House on the 5th of September, of which F. Ferguson Esq., V. P. was chairman, and T. Desbrisay, Esq. Secretary. Mr. Kerr addressed the meeting in explanation of the objects of the Society and urged the importance of improving the manufacture of cloth in that section of the Country; resolutions were subsequently passed in approval of the objects and constituion of the Society; a committee was appointed to co-operate and promote the interests of the Society in the County and to collect and remit subscriptions: Contributions received £6 5s. Rev. Geo. Macdonell on behalf of the local Committee subsequently announces that a Fulling Mill is their chief object of local importance, and that a committee had been appointed to collect more information concerning it. He further suggests that appropriations to local Societies in proportion to their subscriptions would answer best; He also thinks that this Society would be the proper party to collect materials for transmission to the great Industrial Exhibition of 1851.

NORTHUMBERLAND.—A meeting was held in the Mechanic's Institute of Chatham on the 14th September; Geo. Kerr, Esq.,

Chairman, and Mr. J. Macdougall, Secretary. Mr. D. S. Kerr's address and explanation of the Society's proceedings were very warmly received, and it was afterwards resolved unanimously "that the objects contemplated by the Society are of vital importance to the welfare of the Province and demand the best exertions of every lover of his Country to promote and extend those great sources of National wealth and prosperity." An influential Committee what appointed to promote the interest of the County, and to ascertain was species of manufactures it was desirable to establish and promote in that locality. Subscriptions reported by Mr. McDougall £2 10s.

A meeting was likewise held in the Court House of Newcastle on the 10th of September of which J. A. Street, M. P. P. was chairman, and E. Williston, Secretary. Mr. Kerr having brought the objects of the Society fully before their notice, a committee was appointed to draft a series of resolutions, and the meeting adjourned: at the adjourned meeting on the 12th, thanks were voted to Mr. Kerr, and a Resolution was passed highly approving of the Society "embracing, as it does, three distinct branches, which have a mutual tendency to strengthen and promote each other, and which are all essentially connected with the welfare of the Province:" a committee was appointed to collect subscriptions and to promote the objects of the Society in that locality, to co-operate with other committees in the County, and to collect information in regard to the establishment of a Carding, Fulling, and Dying manufactory for woolen stuffs under encouragement from the Society.

Subscriptions to the amount of £2 10s have been since reported but not received.

CARLETON.—A meeting was held in the School House of Woodstock on the evening of Monday the 24th September, of which C. Perley, Esq., V. P. was chairman, and E. Jacob Esq., Secretary.

Various patriotic addresses were made by the gentlemen present —after which the following Resolutions were unanimously adopted;

Resolved, That in the opinion of this meeting, it is the duty of the inhabitants of this Province to encourage and promote every effort to render our people independent of Foreign aid, by supporting every reasonable attempt to manufacture within the Province those articles of common use for which at present we are obliged to foreign aid, enterprise and skill.

Resolved, That in the opinion of this meeting the means of general improvement recommended by the New Brunswick Society for the encouragement of Agriculture, Home Manufactures, and Commerce, are well calculated to promote the objects of the Society, and that the said Society, is well deserving of public confidence and support.

Resolved, That the thanks of this meeting be given to D. S. Kerr, Esq., for the address which he had made to the meeting and for his zealous efforts in the cause of Agriculture.

On the 26th of the same month Mr. Kerr addressed the inhabitants of Jackson-town, and was ably supported by J. Dibblee Esq., and others from the neighbourhood. The best feelings towards the

society were evinced and promises of aid and co-operation freely tendered.

H. E. Dibblee, Esq., has subsequently remitted the sum of £11, of which £5 were granted by the County Society, and £6 collected by private subscription. The Society's grant was made on the understanding that an appropriation of double the amount will be made from the New Brunswick Society to the County society, in aid of some local object to be hereafter determined. "The reports of the Society are eagerly sought for in that quarter," Mr. Dibblee observes, and a further supply is requested to be made. The materials for manure abound in that County, but he remarks that 'the farmers lack the knowledge to apply them." Mr. J. Dibblee in a letter dated Oct. 21, suggests that encouragement should be held out by the society for the manufacturer of cloth, and of farming implements at or near Fredericton; the same gentleman further suggests that a cheap agricultural journal should be freely disseminated among the farmers if possible, and reports that the desire for agricultural information is fast gaining ground in the County of Carleton.

Sunbury.—A meeting was held at Maujerville on the 19th Oct., G. Haywiard, Esq., M. P. P. in the chair: Mr. Kerr explained the plans and object of the society. These explanations were favourably received, and Mr. Hatheway V. P., has reported contributions to the amount of £1 10.

Charlotte.—A meeting was held in the Town Hall on the 29th Oct. whereof Hon. H. Hatch, V. P. was chairman, and Mr. A. T. Paul, Secretary. Mr. Kerr explained the objects of the Society, and after sundry addresses by the gentlemen present, resolutions were passed concerning the objects and constitution of the society, the leading principles of which must have a direct tendency to promote the best interests of the Province. A subscription list was opened, and a local committee appointed to carry out the objects of the society. The subscriptions from this County amounting to £10 or £12, reported but not yet received.

St. John.—By invitation of R. Jardine, Esq., President of the County Agricultural Society, Mr. Kerr addressed that body in their Rooms at St. John on the 28th Nov: Resolutions favorable to the Society were passed, and a grant of £20 was generously made in aid of our subscriptions.

York.—By the kindness of the citizens of Fredericton, the members of the Legislature and others whose names will be published, we are enabled to report subscriptions and donations to the amount of about £45, of which £5 were presented by the Patron of the society, His Excellency the Lieutenant Governor.

A very gratifying meeting was held at the school House in the Harvey Settlement on the 31st of October, of which Mr. R. Wilson was Chairman, and Mr. J. Thomson Secretary. Mr. Kerr addressed the meeting in regard to the objects and constitution of the society, and distributed Reports which were very gratefully received: Resolutions in favour of Farmer's clubs and local

meetings for the discussion of their own wants and objects were passed, and further aid requested from the Society.

No Meetings were held in King's Queen's, or Victoria counties, and no contributions have as yet been reported from thence

On the whole then, it is obvious that the Society has had the approval of the Friends of Agriculture, and Home Manufactures throughout the Province, who have signified that sentiment in a way not to be mistaken, and enabled it to meet the rather severe test to which the principles of the association were submitted by the Provincial Legislature at its first establishment.

As there may be some difficulty in collecting the sum of £100 so soon after this last year's quest, it may probably be deemed advisable to petition the legislature at this approaching session to make some modification of the terms upon which the Provincial allowance is made to us: it would also be desirable to have the names on all of the subscription lists printed in full with the next report of the Society; and that we should faithfully redeem whatever pledges may have been made to the various local Committees or County Agricultural Associations. Public inspection should be freely invited, and public co-operation most earnestly invoked. Our great permanent and abiding interest as a people has been too long overlooked or sacrificed to others. It is high time that an united effort should be made to secure *our own food and clothing from our own soil*, and until this can be done, and proved to be generally practicable, it is hardly worth while to invite new immigrants to make this Colony their home. At the meeting in April last sundry special committees were appointed which have not yet sent in any Reports: this is easily understood when we consider our proceedings were dependant upon the state of the subscription lists. From unavoidable circumstances these could not be made up until lately, and hereafter we may expect the Reports in question which would be of great public utility.

At the last meeting of the Executive Committee it was decided to leave the Provincial Grant of £200 and the balance of the subscribed funds of the Society unappropriated for the action of the new office-bearers of the Society; by hastily appropriating the monies of the Society they might have been misappropriated, but if the income of the ensuing year, was as large as that of the year just closed, there will remain in the hands of this Society a very considerable sum, and which if properly administered may very beneficialty influence the cause of Agriculture, Home Manufactures, and Commerce among us; I would venture to suggest that the new Executive Committee should at once take up the subject of the proposed expenditure for the year, and submit their plans specifically for the consideration and approval of the general meeting to be held in Fredericton during the sitting of the Assembly.

The difficulty in that case probably would be to see that persons unqualified to vote did not do so: this, however, might be got over by getting the contributors to the Society's funds in the respective Counties to empower and instruct a delegate (who might be probably a member of the Legislature) to speak and vote on the appro-

priations: by some such means the united wisdom of the Province might be brought to bear directly upon the encouragement most required for Agriculture, Home Manufactures, and Commerce: this would also give the management of the Society into the hands of gentlemen from every different section of the country, and in fact make it a Provincial institution.

In the neighbouring States, and in some countries of Europe, there is a bureau or department of the Government for the special superintendence of Agricultural matters. I should indeed rejoice to see such an office in this Province, and should augur the best results from its institution, but in the mean time, until we have such a thing, some general Association such as our own for the purpose of directing, stimulating, and promoting by every legitimate method these great interests seem to be imperatively required.

The great majority of our population are and ever must be dependent upon *the land* for their subsistence; when the lumber trade fails, as in time, it will inevitably fail—we must then settle down steadily to Agriculture: in our devotion to lumbering hitherto, we have neglected farming and it is high time that another generation should be rescued from that ignorance of Agriculture as an art and a science—which forces our farming population into the woods and too often keeps them there slaves to an unprofitable employment.

The contingencies of the lumber trade are so great that success in it can hardly be deemed more than a matter of chance; probably however it is this very uncertainty which gives it its zest, for, as Mr. Fox remarked of gambling, "next to the pleasure of winning, there is no pleasure so great as that of losing."

Farmers in most countries have a proverbial dislike for book farming, but this prejudice gives way as general enlightenment proceeds, and the results of practices different from their own can be fairly examined: this Society, then, should I think, urge most strenuously upon the Legislature to strike at the root of this degrading ignorance: Agricultural reading should be provided for every school in the country, and an Agricultural education should be provided for a population which has come expressly to get their living by and from the soil. The want of an Agricultural element in the education of a country like this would argue that our rulers were as averse to book farming as the farmers of the old schools themselves. We hope yet to see the day when the elements of Agriculture will form more or less a part of the teaching of every common School Grammar school and College supported by public

money in New Brunswick. Special Agricultural schools and model farms should we conceive also have early and liberal encouragement. It may seem to be the interest of the commercial portion of the Community to keep our young men ignorant of the dignity and the duties of the Farmer, and to send as many of them as possible into the lumber woods; but experience has shewn that most commonly the farm itself falls into the hands of the merchant; to him however it is valueless, if he had fifty or a hundred of them he would be no richer, for land here is only valuable to the farmer, and very few in this country will ever think it worth their while to become tenants on other men's land. The strong, the great and paramont interest of this country must therefore ever be the Agricultural interest.

This Society might also usefully apply itself to the collection of Agricultural statistics. We want to know the actual state of the Agriculture in every County and to keep pace with its progress and development from year to year: the Agricultural Societies might render more complete accounts of this kind in their annual reports to the Legislature, and there ought to be an annual abstract or digest of the reports of the several Counties so as to give a commanding view of the state of the whole: we think that the duty of making such a digest might properly be committed by the Legislature to this Association.

The subject of a Show and Fair is an important one and demands the most serious attention of the Society: it would be very desirable that one should be held in 1851, although the charge connected with it might be considerable. The bringing of men together for a purpose purely Agricultural—the prominence which the object thereby assumes in the eyes of the public—the comparison of results—the communication of methods—the friendly counsel—the wholesome stimulus of encouragement and competition—all these powerfully tell in favour of advancement—and from year to year the improvement proceeds.

There are none I believe who doubt the effect which the Industrial Exhibition to be holden in London will have upon the arts whose progress it has been designed both to attest and improve. It is a matter of great regret that so little has been done in regard to an exhibition of this Colony at that great show and fair. A Commissioner has been recently appointed to forward such materials as may be designed for the Exhibition in London, but the time allowed is now too short to do justice to the project, and a considerable sum

of money and some special encouragement might have been advantageously applied in furtherance of this object; as early as the month of May last, this Society, in reply to a communication from the Executive Government, stated that "it was prepared to do all in their power to assist in carrying out so desirable an object" and respectfully requested "to know particularly how and to what extent the machinery of the Society could be rendered available in the case." On the 8th of July, however, it was announced officially "that the Government had no farther communication to make on the subject," whereupon the matter dropped. I am of opinion that we ought to have put the evidence whereon we rest our statements as to the great natural resources of this Province into that Court,—and stood by the decision: the Canadians have come nobly forward, and undoubtedly, the substantial proofs of wealth in raw and manufactured materials which they have sent to England will tell most materially in their favour. In that great Exhibition of Industry are the 1500 cubic feet of space reserved for New Brunswick to remain a *blank?*

But to come from great things to small we have ever heard that public Markets tell effectually upon Agricultural improvement; and it is a disgrace to the Seat of Government that she has none. A regular market on certain specified days of the week, to which all farmers should be obliged to bring their produce for sale, would tend very greatly to improve the quality of that produce: no good farmer could refuse to show his, and the bad one would find it to his interest to adopt improved methods. Time would be saved both to the dealer and consumer, and the farmer would rise from the position of a pedlar or hawker to the dignity of a merchant. Should a public dinner in connection with this Society take place during the session of the Legislature it would probably tend to draw all the friends of the cause more closely together, to elicit such information and discussion as could not otherwise be obtained, and to secure a verdict upon the improvement of the Agricultural produce for the year.

It will be a matter of gratification to the writers of the various reports already published by the Society to know they have been most warmly "welcomed everywhere and characterised as the very thing the Country wanted." One thousand copies were printed, of which 700 have been distributed; fifty copies were burnt in the late calamitous fire, and 250 remain for distribution. From all quarters there are demands for more and probably two or three times the number might still be distributed with advantage. Every member of the Society should properly have had a copy, and this must be attended to in future, the funds of the Society cannot be better expended than in

disseminating information; "Line upon line and precept upon precept" are required; slowly the good seed takes root and slowly the fruit is matured; we have the fullest assurance that the desire for information and improvement is becoming general among farmers, and every one who aids them must be regarded as the true friend of his country. A series of useful papers original or selected on the subject most required for the country at present should be prepared by the Society, and distributed—even gratuitously in every quarter. It is very gratifying to know that already the suggestions of the committee on manures are being adopted in different places throughout the Province, and ere long we hope that the principles therein inculcated will be thoroughly and familiarly known to every young agriculturist in the country. A valuable report on immigration by C. L. Hatheway, Esq. V. P., is also recommended for early publication; and there will be work enough for the new Executive Committee in carrying out practically the suggestions contained in that or the other reports now published. Premiums should also be offered to parties who most completely develope the improvement suggested by Professor Johnston or contained in the Society's Reports. We may be permitted also to express our great gratification at the marks and expressions of confidence reposed in this Society by the County Agricultural Societies. Unity of action among the friends of Agriculture is most especially to be desired at this time, and without desiring in any way to control the County Societies we do think that an alliance with them would be for our mutual advantage. The sphere is wide enough and we ought together to form one harmonious whole.

In conclusion, I must congratulate the members of this Society on the position which they have now gained, and to express my hope and belief, that, starting from their new vantage ground they may be able in a short time to give a decided *impetus* to the good cause of Agriculture, Home Manufactures, and Commerce in New Brunswick.

J. ROBB, M. D.,
Chairman of the Executive Committee.

The Society next proceeded to the election of office-bearers for the present year which were chosen as follows:—

Hon. Neville Parker, Master of the Rolls, President.
Robert Chestnut, Esq., Vice President for York in Fredericton.
Thomas Jones, Esq., Vice President for York in the country.
Robert Jardine, Esq., Vice President for St. John.
Hon. Harris Hatch, Vice President for Charlotte.

Calvin L. Hatheway, Vice President for Sunbury.
Rev. N. A. Coster, Vice President for Queens.
Rev. W. E. Scovil, Vice President for Kings.
Hon. Amos E. Botsford, Vice President for Westmoreland.
Hon. John W. Weldon, Vice President for Kent.
Francis Ferguson, Esq., Vice President for Gloucester.
Dugald Stewart, Esq., Vice President for Restigouche.
Harry E. Dibblee, Esq., Vice President for Carleton.
Leonard R. Coombs, Esq., Vice President for Victoria.
Col. Samuel Clark, Vice President for Albert.
Rev. W. Henderson, Vice President for Northumberland.
Dr. J. Robb, Corresponding Secretary.
Robert Fulton, Esq., Recording Secretary.
Joseph Gaynor, Esq., Treasurer.

Additional members.—Mr. Wm. Watts, Senior, David S. Kerr, John A. Beckwith, John Gregory, and John C. Allan, Esquires.

In the course of the Meeting the following resolutions and special committee were adopted and appointed.

1st. *Resolved*, That the thanks of this Society, are due to its distinguished Patron Sir Edmund W. Head, as also to its President, Vice Presidents, office-bearers, and to its various contributors and supporters in the respective Counties in the Province for the handsome manner in which they have sustained the Society from its commencement to the present time,—the Society hopes to prove itself deserving of those favours and solicits a continuance of such valuable support.

2nd. *Resolved*, That the thanks of this Society are justly due and are hereby tendered to the respective gentlemen, who have rendered their prompt and valuable services in making the reports now published, on various important subjects connected with the welfare of the Province and the Society respectfully solicits the continuance of these valuable labors.

3rd. *Resolved*, That the executive committee do without delay exert their efforts to obtain donations and subscriptions for the Society in order to obtain the Provincial Grant for the present year.

4th. *Resolved*, That the Executive Committee prepare and submit a petition to the Government setting forth the impossibility of judiciously expending the Provincial Grant of last year, without an extension of time, owing to the lateness of receiving it, and praying further time for such expenditure.

5th. *Resolved*, That the executive Committee prepare and submit a petition to the respective branches of the Legislature, at the open-

ing of the session praying for a Provincial Grant, on less restrictive terms than now given, and that a special Grant of money be left at the disposal of His Excelleney the Lieutenant Governor for the Society's use, provided it be found practical to hold a show and fair the present year, also that the Legislature will pass the Bill prepared and submitted by this Society last session to regulate the putting up of beef and pork within the Province for exportation.

6th. *Resolved*, That the corresponding Secretary do forthwith, correspond with the office bearers of this Society in different parts of the Province, as also with the Presidents of County agricultural Societies and other individuals with the view of inquiring whether in their in their opinion there be any particular subject or subjects deserving the immediate attention of this Society, and if so, whether such person or persons will consent to be named on a special committee at any meeting of this Society to enquire and report on such subject at a subsequent meeting, and that the corresponding Secretary do report his doings to this Society.

7th. *Resolved*, That the corresponding Secretary collect the different subscription lists—alphabetically arrange the names of the subscribers under the head of the respective Counties where they reside, and have the same publshed and distributed.

8th. *Resolvd*, That the respective special Committees appointed on various subjects, who have not yet reported, be continued, and that the Executive Committee do urge them to send in their reports without delay.

9th. *Resolved*, That the Executive Committee do forthwith take the necessary steps to obtain a small library for the Society's use, especially of such books as may afford the most practical knowledge for dissemination, not to exceed £10.

10. *Resolved*, That the publishers of Newspapers in Fredericton and other parts of the Province are respectfully requested to publish the proceedings of this meeting as may be furnished to the first publisher by the Recording Secretary, and that 50 extra copies of the Amaranth, the Head Quarters, and the Reporter, respectively, containing such proceedings, be supplied to this Society for distribution.

SPECIAL COMMITTEES.

1. *Resolved*, That Dr. Robb, corresponding Secretary, and Robert Jardine, Esq., Vice President for St. John, be a special Committee to enquire and report to this Society on or before the

Meeting in April next, on the utility and effect of thorough and other draining of lands in this Country, as also on the most cheap and practical mode adapted to the circumstances of this Province, of doing the same.

2. *Resolved*, That James S. Beck, and John A. Beckwith Esqrs. be a special Committee to enquire and report to this Society on or before the Meeting in April next, on the advantages to be gained by a proper rotation of crops in connexion with well managed farms, and the best modern modes of doing the same.

3. *Resolved*, That Mr. Robert Gray, and Mr. Wm. Dayton be a special Committee to enquire and report to this Society, on or before the meeting in April next, on the completeness, economy, and management of barns and stables in this Province.

4. *Resolved*, That David S. Kerr, and A. T. Coburn, Esqrs., be a special Committee to enquire and report to this Society on or before the meeting in April next, on the utility and best modes of giving encouragement to settlers on new-land farms, and to the occupying and clearing up of wilderness lands.

5. *Resolved*, That John T. Smith, and James McAdam be a special Committee to enquire and report to this Society on or before the meeting in April next, and submit plans and estimates for the erection of a Woolen Factory, in any suitable place in this Province, where the same may be carried on with advantage, together with the most appropriate dimensions, the amount of capital required for such erection—as also the number of laborers —the amount of their wages and the additional capital required per annum for the efficient carrying on of said factory; also the amount of the manufactured article produced and the available demand or market therefor.

6. *Resolved*, That the Vice President for St. John, the corresponding secretary, John A. Beckwith, William Watts, sen., Hon. W. H. Odell, and Mr. Thomas R. Barker be a special Committee to enquire and report to this Society, on or before the meeting in April next, whether a Provincial show and fair can be held in the Province with advantage, during the present year, and if so, the time place and manner of holding the same, and the probable expence thereof, and with the view of eliciting further information, the subject be brought into discussion, at the meeting to be held during the sitting of the Legislature.

7. *Resolved*, That his Honor the President of this Society, and the Corresponding Secretary be a special Committee to enquire

and Report to this Society on or before the Meeting in April next, on the importance, as well as on the most practical and effective modes of disseminating useful information, in furtherance of Agriculture, Home Manufactures, and Commerce in this Province.

ROBERT FULTON, *Recording Secretary.*

Resolved in Executive Committee, That the Provincial Grant for 1850 be left unappropriated until brought into discussion at the General Meeting to be held during the sitting of the Legislature in 1851, and that the Executive Committee shall submit a scale of appropriations then at the said Meeting.

NEW BRUNSWICK SOCIETY,

For the Encouragement of Agriculture, Home Manufactures and Commerce, throughout the Province.

SIR EDMUND W. HEAD, BART., PATRON.

A general meeting of this Society, during the sitting of the Legislature, took place in the County Court House, Fredericton, on the 19th of March last, a goodly number of the members of both Houses being present, and otherwise most respectably attended.

The society has published and is circulating 7,000 copies in English, and 1000 copies in French, of an excellent little work to show how, without capital, an exhausted soil may be rendered fertile—(and consequently how a good soil may always be kept fertile,) and containing other very useful and practical information. The Society has also published and circulated 1000 copies of an excellent report, together with some smaller tracts on the same subjects.

But to do all this, *funds* are necessary. The society would therefore urge upon all those who are desirous to promote Agriculture, Home Manufactures, &c., the necessity of using their best endeavours in every County and Parish to get subscriptions in its aid, in order that the Executive Committee may be enabled to carry on the good work which has been so successfully commenced, and so usefully prosecuted up to this period.

His Honor the PRESIDENT—(the Master of the Rolls) in stating the object of the meeting, called the attention of those present to the 6th Rule of the Constitution of the Society, which requires that a general meeting be held during the sitting of the legislature. Its members wished the public to become acquainted with the manner in which they transacted the business for which the Institution had been organised. It was a society which had originally been instituted by gentlemen not connected with manufactures or agriculture, but who had in imitation of the example set in other counties, associated themselves for the purpose of doing what in them lay, whether more or less, for the promotion of those important interests.

The present society had its origin in Jan. 1850; and a general meeting was held in the following March, when several members

of the Legislature, then in session, attended and spoke in its favour. Having had the honor to be elected President of the Society, he would now give a brief statement of what had already been done during the past year. Seven different committees had been appointed prior to March last, to investigate distinct and separate subjects; that on the proper curing and exportation of beef and pork, reported at the meeting alluded to, and the information which it contained was highly appreciated by those present on the occasion. The other six committees also had reported; and their several reports had since been published in a closely set pamphlet of nearly one hundred pages. The object of the society was by this means to disseminate information, on the great objects of their association in this Province. In addition to the information thus extended through the press, a gentleman (Mr. Kerr) to whom the society chiefly owes its origin, while on a professional tour had visited the counties of Westmorland, Albert, Kent, Restigouche, Northumberland, Carleton and Charlotte. On these occasions meetings were held, and whether numerously attended or not the result bore evidence to the fact that the common object was very generally appreciated. With regard to the printed Reports of the Society, they were every where gladly received and highly valued. At the annual meeting in January last, a detailed account of the pecuniary state of the society was furnished. That report shewed that £100 had been raised by the society through individual subscription, and the grant of £200 from the Legislature, which was made contingent on the former amount being realised, had been secured.

It was thought better to let the funds in hand stand over till the present meeting, in order to consider the best method of laying them out—not that the Society felt disposed to throw the responsibility off their own shoulders, but they wished to submit their views so as to have the benefit of the suggestions which may be offered at this meeting. After the payment of some small sums now due, the Society would have in hand £240 which they wished to dispose of as follows:—£100 to be appropriated to the printing of such information as should be deemed most conducive to the general interests of the country, £80 towards the encouragement of manufactories, &c., £20 for books for the use of the society, £30 for premiums, prize essays &c., and £10 for contingencies. This was a general outline of the course the society meant to pursue. The means of carrying out their objects were mainly two, one was to disseminate information—the other, to give pecuniary encouragement in cases where they might suppose it would prove beneficial. The Society was

deeply impressed with the necessity of communicating agricultural information, and in pursuance of this object they had printed 1000 copies of their own Reports—seven or eight hundred of which had, as already stated, been distributed. They had also published an agricultural tract both in the French and English languages, thus giving to the farmers of this country, and with a special reference to French inhabitants, the means of acquiring that sort of knowledge which will best promote their advancement in agricultural pursuits. Another measure with this society was the promotion of farmer's clubs throughout the Province, and the establishment of small Libraries for their use connected with the subject of agriculture. In these clubs or societies the young men would learn the rudiments of that highly respectable and important profession for which they are designed, and in which calling they can never hope to succeed while they remain ignorant of its principles.

The Society also thought that much might be done in the encou ragement of Domestic Manufactures. It was something though not much to say that our houses were the produce and work of the country, the timber, stone, mortar, bricks, and in good part the nails were the productions of the Province, and they were built by our own workmen.

So a large part of the dress of the people was home produce and manufacture, such as woolen clothing, hats, and other garments. Rope Walks had once been in operation in St. John; and in St. Andrews, at present a Paper Mill and a Flax Mill are projected. The building of Ships too, that great branch of domestic manufacture, is carried to a pitch in this Province, which for model and workmanship, as they float in every harbour in the civilized world, carry everywhere testimony of the skill and ingenuity of our mechanics. With such proof before us and with the resources at our command, we may entertain a good hope for domestic manufactures. We live in a critical, and highly important period of the world. Science is making rapid strides over the nations of the globe; and Railways, those great highways of nations, are held in universal repute. Even in these colonies it is proposed to construct one from Halifax to Canada; another from Halifax to the United States, and a third through the western districts of New Brunswick to Canada. But he would be sorry to see those Railroads made for the mere conveyance of passengers through this Province in their transit from our country to another. Far better would it be, to make the country fit for their permanent abode, as the hand of a merciful Providence had originally designed it. Travellers can turn to few countries,

more healthy in their climate and more rich in their natural beauty and resources. The hand of nature has done much for New Brunswick, but the labour and ingenuity of man can do as much more. The climate may be somewhat harsh, but it is in such climates that the natural and physical resources of man are best developed, for, as justly observed by a gentleman now on a mission to England from our sister Province, it is not the mild southern climate that is most celebrated for the production of great men; the strong nerve and powerful mind—the wisdom to plan and the strength to execute, more properly belong to the north. The new and extraordinary power of steam, had already accomplished wonders, but under the control of man's ingenuity, it must yet lead to new discoveries. Already has it unmoored this solid continent, and from its old longtitude of 66 or 67, it has practically drawn it to that of 22 or 23, in close proximity to Europe. Formerly, the average time of a voyage across the Atlantic was *forty* days:—that time is now reduced to *ten*, and still lessening at each successive pull of the rope as science advances. Had we been at the first settlement of this continent, thus within shaking hands distance with the mother country, who shall say what the history of America might have been. Looking at the effect which Mr. Howe's Lectures are producing now in England, the hopes of these colonies are awakened that it is not a pauper class of emigrants we may in future expect to visit us, but men of wealth and intellect who from the truths thus laid before them will have sense enough to see that in benefiting these provinces by selecting them as their residence, they will be conferring the greatest benefit upon themselves. Let it then be the great object of the people of this Province to make it worthy of such a class of emigrants to choose it as their adopted country, and improve it by their wealth, their skill and their industry.

He hoped the efforts of this Society would be productive of much good all over the province. It may be that it may not fulfil at first all their expectations; but he asked for time, and the exercise of patience on its behalf, and as all would own the great interests which it is designed to promote, he would also ask the friendly aid and co-operation of those for whose sake its efforts were especially intended.

The Hon. Attorney General rose and said, he had been entrusted with a Resolution to move, and although it had been put into his hands a day or two since yet his time was so fully occupied with other pressing matters, that he had been unable to give it sufficient attention to do justice to the important interests which

it involved. He would however make a few observations which he was happy to say were rendered less necessary by the highly interesting as well as eloquent observations of His Honor the President.—The objects of this society were to foster and encourage Agriculture, Home manufactures and Commerce—interests upon which the future prosperity of the province mainly depended. Every man who loves his country must and ought to feel himself identified with the prosperity of the country in which he lives. He was glad to find that Agriculture was placed the first of the three objects of the Society; this was right, because Agriculture is the foundation of all, and will if properly conducted give an impetus to all other branches of industry, and the three objects of this Society should go hand in hand and thereby foster and encourage each other. Much might be done for the encouragement of agriculture, but he believed that of all the means which could be adopted, the dissemination of knowledge, scientific knowledge and information would prove the most effective.—From the very first, agriculture had been regarded as the primary source upon which the very existence of mankind depended, and surely every means by which this useful and ennobling pursuit could be encouraged—every new light which could be afforded in its developement must be regarded as of the utmost importance. It was not the mere labour of handling the plough, but the best manner in which that useful implement can be employed, which should form a subject for investigation.—Much physical force may be expended without an adequate remuneration, but the great secret lay in the application, the judicious application of labour to the purposes for which it is intended. Who, he would ask can read the Georgics of Virgil without feeling, if an Agriculturalist, the native dignity of his vocation, and do not the words of Cicero, who in one of his works, says that "among all the methods of enriching "one's self, there is no one better, no one more profitable and "pleasant and agreeable, no one more worthy of a man and a "gentleman, than that of preparing and tilling the ground" shew that agriculture even in those early times was viewed as an ennobling and lucrative profession. If then the Ancients, laboring under all the disadvantages of the age in which they lived, could so well appreciate the honours and benefits resulting from a proper cultivation of the soil, how much more should we, blessed as we are with all the science and knowledge of the present age, press forward and improve our common means for the common interest. As an instance of what might be affected through the instrumen-

tality of agricultural instruction he would here allude to the Letters of Agricola, composed and published in Nova Scotia by the late celebrated Mr Young in 1823. These beautiful letters had been and still were read with the deepest interest not only in Nova Scotia and New Brunswick, but also on the other side of the Atlantic and in the United States. They displayed the advantage of science in its application to Agriculture; thus giving a proper system to the husbandman in the management of his farm. It was to promote the same object, to induce a love of labour and to give that labour a proper direction that this Society had in a great measure been founded.

The object was important, and deserved the best efforts of every man who loves his country, and the means proposed viz; the circulation of scientific knowledge, and the encouragement of the practical agriculturalist, were well and wisely conceived. The farmer must be instructed not only how to hold the plough and sow the seed, but also in relation to the time to sow, as well as the seeds to be sown, and the special soils to which those seeds were suited. He must be taught to avoid those errors in practice, by which his labour is thrown away, his expectations disappointed, and his land impoverished. Without a knowledge of agricultural chemistry, these risks must ever be run by the farmer. Different soils suit different grains, and these again must be selected with care, and sown at proper seasons. In passing through the country, the traveller will frequently find two neighbours, subject of course to the same climate, and living upon the same quality of land; but whence is it that he sees one of the farms neatly fenced and in good condition, and the other almost worn out and fenceless, and impoverished? The cause is easily discovered. One of the proprietors understands his business, and is consequently thrifty and independent; the other is ignorant, and his farm is so ill-managed that it becomes unproductive. He (hon. Attorney General) was not an agriculturalist; but he had always admired rural pursuits; and should he ever have the fortune to retire from his profession with competency, he could conceive no other retirement so attractive, or congenial to his wishes, as that of tilling the land.

Again reverting to the Resolution in his hand, he could see no other means so likely to forward the united interests of Agriculture, Home manufactures and Commerce, as the extension of knowledge through the agency of well-directed information throughout the Province. Here there was no room for petty squabbles or jealousy; or the assurance of support for one party at the expense of another.

The Society takes up the three great interests of the country, and affords equal encouragement to the whole. If Agriculture were well carried on, its stores would supply the manufacturer at his own door. If manufactures prospered, the operatives would give a market to the farmer, and if both prospered they would give a legitimate basis to the commerce of the Province. Again, if either of those great interests asked too much of the other, in doing so it would be sure to injure itself. The farmer and manufacturer in the event of the objects of this society being carried out, will have a market at home; while the merchant will avoid high freights and long voyages.

The efforts of the people of this Province had, he feared, been too long directed to the encouragement of foreign growth and productions rather than their own. The capital of the county has not been laid out to advantage, it has been expended in the purchase of American produce, instead of being directed to raise that produce on our own lands. We had encouraged the industry of strangers, but neglected our own or rather given it a wrong application. It was time that a remedy wore applied for this great evil. It is time that the people should learn, if it were only from the errors of the past, a wiser course for the future. We should learn self-reliance, as a people. We should regard New Brunswick with such feelings as those would indulge who are proud of their birth-place, and resolved to make themselves worthy of being its natives. Every man should identify the common welfare of the country with his own, and advance the general interests to the best of his ability. He (hon. Atty. General) was afraid—and in this respect he was not himself free from blame—that there was too much selfishness at the bottom of our general transactions: that we are not animated by that *amor patriæ* which should be the mainspring of our public actions, and that the foolish idea of making money at home, to be expended in another country had taken too much root in the country. We ought to be actuated by a nobler and more patriotic feeling, a feeling which should make us take pride in our own or adopted country, and consider it the country in which we and our children are to live and make our bread. It is the want of patriotism which induces persons from the old country who have accumulated wealth here, either to return again to their native country or to remove to the United States and give the benefit of their capital to strangers.

To counteract those selfish and narrow views, was one of the great objects of this Society;—to teach every member of the com-

munity that he cannot prosper while the general system is deranged: and that a general system of union is required, in order to advance our individual interests.

The people of New Brunswick, independently of their fertile lands, have a most healthy and salubrious climate: a climate which cannot be duly appreciated, except by those who have lived in an unhealthy one. It was said that we have long winters, and a short summer; but if our winters are long, they are required for the purposes of our pursuits; and if our summers are short, they are yet long enough to produce us the best of crops, whenever our lands are properly cultivated. Our object should therefore be, to impart to each other such information as will facilitate the industry of the Province and direct it in its proper channel; and while doing so we will be fostering a system of Emigration, which instead of placing a parcel of paupers on our hands for support, will plant a number of useful settlers in the wilderness, each one of whom would shortly be succeeded by ten following in his footsteps. The question once more suggested itself, in what other way could the general interests of the country be promoted, so well as by the circulation of scientific works in relation to those interests? It was this which would inform the better class of Emigrants, in Great Britain, of our capabitities to afford them a home and a living amongst us; and it was this which would instruct our own population to make the best use of the privileges which they enjoy. Without scientific knowledge it is impossible to turn any pursuit in life to a good account. He (hon. Atty. General) was a Lawyer; but he did not hesitate to say, that had he not paid constant attention to the scientific part of his profession, he never could have arrived at mediocrity in his practice. It was so with farmers; if not well informed in relation to their own business, if not taught to admire it for its own sake, and to honour it as a profession, they could never hope to arrive at independence. Instead of being regarded as humbling in its character, Agriculture should be understood as the most ennobling employment which a man can engage in, and the farmer should understand that his profession is second to none in the world.

He (hon. Atty. General) had been in many parts of the United States, and in contrasting their soil and climate with that of this Province, he found that our own country deserved the preference. Our soil was certainly more fertile than that of Massachusetts, while the difference in climate is scarcely perceptible. In these particulars he believed Professor Johnson was right when he gave

our country the preference over the Eastern States of America;—at least it may justly be said that it is inferior to none. The same may be said of our mineral resources; and it was cheering in this respect to know that when our timber shall be exhausted we yet have within our own country never failing sources of wealth to sustain the Manufactures and Trade of the Province. Here he alluded to that great source of national wealth, the Fisheries, and spoke of the want of energy in our own people, who do not properly avail themselves of their advantages, while the Americans, fit out vessels, and after coming from a great distance, make money by catching fish in our waters. He also alluded to the warm admiration with which several of the Scotch farmers in the County of Northumberland spoke of the pamphlet published by this Society last Autumn, and then concluded by reading the following Resolution:—

Resolved, That one of the leading objects of this Society should be the preparing publishing, and circulating, in every part of the Province, such information as may be best calculated to encourage and improve the Agricultural and Manufacturing interests of the Province, and the Commercial interests connected therewith.

John A. Beckwith, Esq., said he had been requested to second the Resolution just read, but from the able manner in which it had been discussed by the learned Attorney General, he should be very brief in his observations. He had seen the great benefit which the diffusion of scientific knowledge through the Press had already conferred upon the County Agricultural Societies, in giving the farmers, among other things, a better estimate of the peculiar character of their lands, and the special management which they in consequence required; and the present Society so far from being in the slightest degree adverse to the local ones, encouraged them by its example, in the dissemination of useful knowledge throughout the whole Province. On this subject, he could confirm every observation made by the learned Attorney General, knowing from his own experience in the country how much the printed information sent forth by this Society had been appreciated by the people. He had himself left copies of the excellent Report published last year by the Society, in the hands of many persons in the Agricultural districts, and on seeing them afterwards they all expressed themselves delighted with the information which they had thus received. This afforded the best pledge to the Society of the usefulness of the course which they had adopted, and the wisdom of following it up with similar pro-

ductions. It was not however in sole reference to our present population, that those Agricultural works would be found useful. It is expected from the efforts now in progress that we are shortly to have an influx of a better class of Emigrants than, generally speaking, have hitherto come to this Province, and he (Mr. Beckwith) held it to be no trifling object achieved, if on the arrival of those people we found ourselves able to place in their hands such information as would enable them not only to form a just estimate of the resources of our fine country, but which would on their becoming settlers teach them the practical application of Agriculculture on their own lands. This was a species of information which could not be obtained from abroad, and was of course the more required in the Province; and notwithstanding all that had been done, it yet became necessary to take up the subject from the very beginning and teach the stranger who comes to settle in New Brunswick, the best method of clearing the wilderness, and sowing his first crops in the new Settlement. Information thus circulated would thus become doubly useful; as it would inform those interested, whether at home or abroad, of what we can do in this Province, and the manner in which it is to be done.

Mr. Wilmot felt much interested in the success of the Society, and would make a few brief observations in support of the views already expressed by the hon. Attorney General, Divine Providence has given us a country as rich in natural resources as we could desire, but in the midst of the blessings by which we are surrounded, we turn our backs upon our best interests, and pursue a course which if followed much longer must end in bankruptcy and ruin. We have been cutting away large quantities of the finest timber in the world from our lands, and instead of employing our own people in its manufacture, we have been sending it abroad to employ the labour of foreigners, who thus thrive upon our thriftless folly and bad management. Any country which can produce food and clothing for its inhabitants includes within itself the elements of wealth and prosperity; but when the whole trade of a country is placed in the hands of a few persons engaged in business, and taken from those who compose the productive classes, it is impossible that the people can prosper. This state of things should continue no longer. We should raise our own food, and produce our own manufactures, and the labour thus expended among ourselves would soon render our country wealthy and prosperous. We have been throwing our resources into the hands of foreigners, who will not reciprocate our wish to meet them, and the mechanic who should have a fair day's

wages for a fair day's work, is thus driven out of the country to get work elsewhere. We should produce our own necessaries, instead of sending for them from abroad, and that too from the very persons who are indebted to ourselves for the raw material, which they return in the shape of manufacture. One point was obvious to the world; we have not only the material for producing a great variety of manufactures, but we have in the highest degree of perfection those water powers and privileges through which those natural resources may be converted into such articles of domestic use as are required in the country. It is therefore worse than folly to send abroad for what may on such easy and reasonable terms be procured at home.

(The Resolution as read by Mr. Street was here moved and uaanimously adopted.

Mr. Botsford M. P. P. said he rose with some embarrassment to speak from a Resolution which had been designed for a gentleman not now present, and which had been only a few moments in his hands. The object of the Resolution was to elicit the opinion of this meeting in reference to the greatest interest—that of Agriculture—in the Province,—and in speaking on this subject, he would confine himself to a few brief observations.

There was no doubt of the Agricultural capabilities of this Province: but their want of developement shows our own deficiency. In his (Mr. Botsford's) boyhood the whole of the North was one great lumbering district, and the raising of Agricultural produce, such as wheat, peas &c. was almost unknown. Now, those very parts were, upon trial, justly called the granary of the Province, and perhaps the world could not exceed the quality of the wheat (72lbs. per bushel) raised in Northumberland. It had been found by agriculturists, that the seed raised in countries where the climate is short, was the best to transfer to those where it took a longer period in growing. This then would give another advantage in the market, to the fine wheat of our own country, as its rapid growth was well known and would procure it a preference in the United States. With the exception of some county societies and the present one, which had been lately incorporated, nothing had hitherto been done in a Legislative way, for the Agriculture of the country. All the energies, and capital of the people had been embarked in lumbering. In 1842, 400 sail of vessels had traded in Miramichi; but they were all engaged in the staple trade, so called, and insted of conferring a permanent benefit on the country, as they would have done had they been engaged in a trade based upon its agricultural interests, they only stripped it of its timber, and filled it with articles of luxury, which proved a curse to

those who received them. Had the amount of £200,000 which should have been received for the article exported, been laid out in the permanent improvement of the country, there would not be a river or brook in the Province that would not have exhibited its effects in the thriving settlements by which they would have been surrounded. Beyond this, let it be remembered, that a similar expenditure might have been made, under a well regulated system in the Province for the last twenty five years, and the benefit which ere now we would have received must be incalculable.

The question now was, how is this society to direct its energies, so as to repair as far as possible the evils which have arisen, and to introduce a better system for the future? One great means would be found in the dissemination of plain and useful knowledge among the people. Professor Johnston's Report was doubtless a work of great research and merit; but it was not *the* work which was best calculated for instructing the farmers of this Province, since in order to understand it many of them must go to school and become acquainted with its technicalities. A plain easy manual, not a learned work on chemical agriculture, is that which is required. To conclude these brief observations he must express his pleasure, at seeing men of all classes, and different shades of politics, engaged and he hoped successfully too, in carrying out the important objects of this society.—He was proud to see one of the learned dignitaries of the land occupy the chair of this meeting as its President, and he was proud to see his honor supported by men of the most extensive talents, learning and influence in the country. It boded well for the cause of Agriculture, when thus supported; and he hoped the influence thus given would never be withdrawn. He (Mr. Botsford) was a lawyer, but he was also a farmer, and took a pride in being one. He had raised his own bread, and felt himself engaged in an honourable employment while so doing; but when he looked around him here and saw learned professors of Colleges, and gentlemen of the Bar, and of the Bench, mixing with practical Agriculturalists in the promotion of our common cause—the welfare of our common Country—he could not help expressing his hope that a new era had arisen in our land; and that agriculture, that great interest of this fine Province, would henceforth be deemed as honorable as it was useful.—Here Mr. Botsford moved the Resolution.)

Resolved, That this Society continues deeply impressed with the extreme importance of union and energetic action in regard to the development of the Agricultural resources of the Province.

Mr. M'Leod, M. P. P., briefly supported it. He said he was much pleased to see the unanimity of the present meeting, and to know the principles by which its members were actuated. He was also glad to see that individuals of the highest standing in the community had connected themselves with this Society, and hoped that their example and influence would have the best effect in the community. He would wish to see the system of practical Agriculture carried on to its fullest extent; and thought in order to do so, gentlemen of the learned professions should appear in cloths manufactured from wool raised in the country, and prepared by the wives and daughters of the inhabitants. He was a farmer himself, and knew well the influence which such a mode of action would have upon the people, who knew well that they deserved this encouragement, as the cloth which they produced was vastly before that which is generally imported.

Mr. Barberie thought that after the able speech made by his Honor the President, followed up as it had been, by those of the learned Attorney General, and of others, but little was left for him to say. He would therefore be brief in drawing attention to his Resolution. He must express his great satisfaction at the step already taken by the Society in promulgating such an amount of valuable information as had appeared in their printed Pamphlets. For their valuable Report, he, as an inhabitant of the County of Restigouche, tendered his best thanks; and in this he did not stand alone, for these reports were eagerly sought by the people, who professed themselves much pleased with the instructions and information which they contained. In his County, the farmers understood the benefits to be derived from a rotation of crops, and had practised that system with great success for several years, and this proved one great benefit already derived from the acquisition of useful knowledge.

Here Mr. Barberie alluded to the publication of an Agricultural tract, translated from the French, (we believe by Professor Robb) which had been printed under the auspices of the Society, and which like the original Reports of the Society, was calculated to produce the best effects throughout the Province. This Sooiety was, he believed, calculated to take the lead of all the Agricultural Societies in the Province, and on this account, that however well the others may raise competition, and lead to the production of fine specimens of produce, of stock, vegetables, and grain at the shows, there their usefulness ended, as they did not follow up their endeavours by sending forth that practical information which the people are so much in need of. The competitors at such exhibitions should always be compelled to give information of the means whtch they had adopted, in the pro-

duction of their articles, for the result of their successful experience would be highly useful to their neighbours.

Mr. Barberie concluded by reading an extract from one of the Agricultural Tracts to which he had alluded; remarking also that so far as wearing homespun made by his own people from wool of his own raising was praiseworthy, he must be in the right track, as he had worn such for several years.

Resolved, That this Society desires to express their conviction of the importance of County Agricultural Societies in every case of premiums for stock or crops, exacting from competitors a detail in writing of the method of raising or growing the said stock or crop, and also to shew accurately the profit of effecting the same.

Here a stranger, (we believe a Mr. James,) addressed the meeting at some length: he appeared to be perfectly conversant with the system of Agriculture in England, and gave several valuable suggestions relative to ploughing, and the cultivation of wheat.

Mr. Gilbert M. P. P. observed that with a country such as ours, abounding with the best Agricultural resources, as well as those facilities which promote the supply and manufacture of lumber and the building of ships, nothing was wanted but a proper encouragement to be extended to those important interests. He was glad to see that men of the most influential talents and highest character in the Province had at last become fully alive to those interests, and had united in this society, with the powerful means which they had at their disposal. The Province expected much from such a Body, and what they would do could not come too soon, as it was impossible from the downward tendency of prices and wages, for the people to remain much longer in the Province. It therefore became the duty of all to co-operate with the members of this Society, in the great objects for which it had been organized: and this being done, there could be no fear of its proving unsuccessful. He was glad to see so much unanimity of feeling; and should rejoice to render this society every assistance in his power.

Dr. Robb said that there are in the history of nations as in the lives of individuals certain events more remarkable than others which lead them to consider and reflect upon their real state and position, and that distress and difficulty will thus frequently force them to a wiser and better course of conduct for the future.

It was true for instance that the Potato rot, which at the time was regarded as one of the greatest evils that could befall Ireland, had now given to that country a more enlightened set of Landlords and had taught the tenants a better system of Agriculture.

The failure of our own crops—and the altered policy of the Mother Country in regard to the Timber duties, had driven the people to consider the true basis of their prosperity, apart from the protection afforded to them by the commercial policy of the English Government, and obliged them to give up in great part those uncertain lumbering pursuits in which they had been engaged for the more certain and useful occupation of tilling the land: the people had thus discovered that unless they gave greater skill and attention to the Agricultural resources of the country, ruin and confusion must ensue.

In order to aid in placing the great permanent and abiding interest of the people upon a better foundation, County, and Parish Agricultural Societies had been established in many different parts of the Province, and, now, this Central one, professing to be guided by the same principles, but more extensive and general in its operation, had been called into existence.

One of the objects of this Society has been to train the minds of the farming community to a better acquaintance with the principles of the art in which they are engaged. Without skill all labour is useless. A special education for the farmer had hitherto been denied, and until that was secured for them they could not expect to practice their business with honour or pleasure or profit. Among the many ways of instructing the minds of the farmers meetings or clubs for the special discussion of Agricultural subjects have been found to be of very great importance and utility. It might be said that Farmers Clubs existed already in the country, but the existing Agricultural Societies, with hardly an exception restricted themselves to the award of premiums for the best crops, and farm produce: the competition thus engendered does good no doubt to a few, but the discussion of individual experience is almost wholly overlooked at their periodical meetings. Accordingly he wished to urge the importance of these objects and to recommend the formation of Farmers Clubs in every county and parish of the Province, or the engrafting of them upon the existing Agricultural Societies. It was not for the purpose of gossip he would recommend these Societies—there was no difficulty in conducting them in a grave and business like manner so as to elicit and disseminate very much useful knowledge upon Agricultural matters.

It might be said that such a system was too difficult for a new country like ours, but, this he did not believe, it was almost as easy to work such a system as to talk about it. All that was required was the adoption of a simple constitution and the appointment of a Chairman to preserve order, and a Secretary to record the proceedings: if one was established others would soon follow. He thought that a

printed form of constitution for such clubs, and a list of subjects to be discussed might properly be prepared and published by this Society, so as to assist their first beginings. He called upon the members of the Legislature then present and all friends of Agriculture in New Brunswick to lend their aid in organizing such clubs on their return to their own respective districts.

If it were said that there were few subjects on which farmers could occupy a whole evening he would beg to ask whether less than one evening's discussion could enable any meeting of farmers to arrive at clear conclusions in regard to

Agricultural Education,
Common Schools,
Agricultural Libraries,
Agricultural Lectures,
Agricultural Periodicals,
Agricultural Bureau and Inspector,
County and Provincial Societies,
Measures of Government for improvement of agriculture,
Improvement of Roads and means of transport,
Provincial Show and Fair,
Local difficulties,
Local advantages,
High Farming and Plain Farming,
Drainage, superficial and deep,
Drainage by stone, tiles, slabs, poles, &c,
Deep ploughing,
Effects of Frost,
Lime and Plaster effects and advantages, marl &c,
Portable manures; bone dust, guano, salt,
Soils and Sub-soils of District,
Bog-earth, its application,
Composts; preparing—preserving,
Manures, saving, application and construction of heaps, &c,
Manures, fermented and unfermented,
do. liquid,
Keeping farming accounts,
Fencing,
History of Breed of Stock in District,
Breeds most suited to district,
Improving breeds,
Importing Stock, and condition on which Bounties should be given,
Stall-feeding—Oil Cake,

Keeping of Sheep,
Keeping of Poultry,
Management of Orchards, Gardens, &c,
do. Pasture Lands,
do. Dairy,
do. Bees,
Spade Husbandry,
Preservation of Root Crops,
Culture of Turnips,—Hay,
do. Carrots, Parsnips, &c,
Wheat Culture,
Economical keeping of Farm Horses,
Diseases of cattle, swine, poultry, &c,
Pruning of trees,
Planting and transplanting of trees,
Fall or Spring manuring—top dressing,
Renovation of exhausted land,
Protection of animals from cold,
Profit of fattening cattle,
Horses *versus* Oxen,
Farm Tenancy.
Potatoe Disease,
Wheat fly,
Seed Potatoes,
New articles of culture,
Slicing Turnips, cutting Hay and brusing Oats,
Rotation of crops,
Broom Corn,
Stumping land,
Treatment of New land,
Manufacture of ashes,
do. Maple Sugar,
Culture and weaving of flax,
Culture of corn, and uses of,
Irrigation and warping,
Influence of fishing on farming,
do. Lumbering, do.,
Premiums for County Agricultural Society,
Measures of Provincial agricultural Society,
Manufacture of Potatoe Starch,
Culture and uses of Peas and Beans,
Steaming food for cattle,

Improvement of cheese,
Industrial resources of Vicinity,
Advantage and disadvantages of climate,
Markets foreign and local for Agricultural purposes,
Effect of Bounties on agriculture,
do. Tariff. do.,
Green Crops for manure,
Grounds fallow,
Insects hurtful to vegetation,
Curing of Hay,
Root crops for Stock,
Winter work for farmers,
Farmers Banks,
Growth af Hops,
Disposal of Crown Lands,
Modes of settling emigrants,
Places for do.,
Procuring a supply of labour,
Average crops and profits of farming alone,
Curing and putting up of Beef, Pork, Butter, &c,
Selection and steeping of seed,
Improvement of Seed wheat, &c,
History and growth of Settlements,
Construction of Barns &c.

Resolved, That this Society impressed with the value and usefulness of Farmers Clubs, or periodical meetings of Farmers for the purposes of reading and discussing Agricultural matters, recommend the early formation and encouragement of such institutions throughout the Province, and the collection of Agricultural publications in connection therewith.

Mr. English, M. P. P. remarked that as it was getting late in the evening, he would make only one or two remarks. This meeting had been convened in order to promote the prosperity of the Province, and viewing it in that light, he had much pleasure in giving it his support. In answer to the anxious inquiry, what is most wanted to promote the welfare of the people, he would answer, that we do not want good land; for there was not a single tract on the eastern side of the Allegany Mountains to compare in fertility with the Province of New Brunswick. But while he know, and know from his own observation, that we do not want a soil, he was compelled to own, that it was rendered in a great measure useless, from our want of Agricultural knowledge. We want an Agricultural population to

produce for the consumer, but this we cannot have until the farmer is sure of a market where he can dispose of his produce. The interests of the Agriculturist and the Manufacturer were thus closely identified with each other; and he trusted that through the information promulgated by this Society, each would learn much to advance their mutual benefit. With these brief observations he would second the Resolution.

Mr. WILLISTON, M. P. P. was not an Agriculturist, and could of course have no knowledge of farming operations; but he was an inhabitant of the Province, engaged in business and deeply interested in the prosperity of the country. The present Society embraced the three-fold objects of Agriculture, Manufactures, and Commerce, and consequently could not fail to recommend itself to every individual in the Province; as these were the three great interests upon which all others were founded, and were closely connected with each other.—He admired this Society for another reason—it had no political character; for whatever might be said about high protective duties, he felt firmly convinced, that if Agriculture, or any other interest could not prosper *without* them, neither could they prosper *with* their assistance. If every business in the Province was equally encouraged then all would thrive, but if some were encouraged at the expense of the rest, then all must mutually suffer. For instance, the farmer furnishes produce for the use of the ship-builder; but tax the ship-building interest so high that the builder cannot make his returns, and where then would the farmer find his market? He believed this Society would exercise a great influence in the country, as the information which it afforded in the case of stock, and as to the formation and management of manures, would make it exceedingly useful to the farmers, who required a better system in the general superintendence of their farms. Here Mr. Williston proceeded at some length to give his views adverse to partial protection, observing that he thought, the establishment of a Cloth Manufactory in the vicinity of Fredericton, would prove highly beneficial to the adjacent country, inasmuch as the quantity of wool consumed in such a place, would encourage the farmers to produce that article on their farms. This was the true principle of protection:—it would, instead of teaching the owners of the soil to look abroad, give them a useful and practical lesson, in this way of self-dependence. It would teach them that their own bread is sweeter than that of strangers; and that their own labour, rather than a sickly dependence on legislation, must henceforth be the source of reliance.

Resolved, That this Society has seen with great satisfaction the

efforts which have already been in many quarters made in improving the character of our Provincial Agriculture.

Mr. Ryan M. P. P rose to second the motion, not to make a speech, which he felt would at that late hour in the evening, be improper. The objects anticipated by the Society, namely, those of Agriculture, Commerce, and Home Manufactures, had his most hearty concurrence; and he was glad that they had united those great interests of the country; so as to afford each and all, an equal encouragement. It must doubtless be in consequence of the imperfect system upon which farming had hitherto been conducted, and the consequent small amount of produce which we had been able to raise, that our climate had been termed bad and our land sterile;—this was doing injustice to the country. We have as rich a soil and as salubrious a climate as can be found in any other country on this side of the Atlantic; and if our lands have not been made productive, the fault is in those who have their management. With these views of the useful tendency and operation of the Society, he would have much pleasure in seconding the Resolution.

Mr. Johnson M. P. P., in allusion to the current report once circulated to the effect that New Brunswick is not an Agricultural County, stated that his own experience had convinced him to the contrary. He had himself off one bushel of seed, raised twenty-two bushels of wheat, which when ground produced five Barrels of the best flour in the Province. His Resolution also included the growth of flax, as a branch of Provincial Agriculture; and he was glad that this species of industry was recommended, as it not only showed that the Society had extended its views in different directions, but it also recommended in this instance a useful article, which grows well upon the North Shore, and which was well calculated for consumption in the home market. The vast benefit of raising our own produce, could scarcely be appreciated according to its real importance; for it saves those high freights and long transits which result from a foreign trade; and gives besides the whole benefit of a continuous round of business, which when carried on abroad, loses a great part of its value. These remarks were particularly applicable to our present case, when the balance of Trade is so much against us, and our labour, that great capital of our country, is wasted upon strangers. Our timber trade too, from a variety of causes, has ceased to be profitable; and being thus in a great measure shut out from foreign trade and left to our own resources, our greatest wisdom should be to encourage every species of trade and industry for which we can raise the means in our own country. (Here Mr. Johnson spoke for some

time on the necessity which existed for farmers to cultivate their intellect, as the days were passed when ignorance could be brought to contend successfully with the growing intelligence of the age.

Resolved, That this Society is encouraged to hope that the culture and weaving of Flax may soon become of very great advantage and profit to this Province, and that the officers of this Society should take means to call the attention of Agriculturalists to the subject.

Hon. Mr. Crane approved of the plan proposed by Dr. Robb, in relation to the discussion of Agricultural subjects in the country; and although not sanguine in his general views of public societies, he still must say that he thought the present one was calculated to produce much benefit in the Province.

He (Mr. Crane) was a country trader; and it was in the country he had made all he was worth in the world,—he had not been unobservant of passing events around him, during the number of years which had elapsed within the scope of his experience,—and the result of his observation was, that the thrifty economical habits of our Grandfathers had been given up, and a new system—one of imprudence and extravagance—most foolishly substituted in its place.—The prospect of immediate gain from the source of lumbering, had in too many instances driven the farmers into the lumber-woods, and after years spent in this uncertain way, in which they imbibed habits which were too expensive for the country, they woke up at last to find their farms gone, and their labour—that great capital of every working community—expended for nothing. It was necessary then that some scheme should be devised, for rescuing the country from the effects which had followed this great imprudence—to stop the draft of men and money from the country, and to give a healthier action to the economy of the people.

For upwards of thirty years, the merchants of this country had the pecuniary resources of this Province vested in their hands; and the result had been as he had now described it. It was now time to introduce another and a better system, as anticipated by this Society; and to encourage the mechanic and farmer, not by a Bounty provision, but by giving them such a protection as would insure them our own market—the merchants he would leave to find a market for themselves.

Resolved, That a portion of the Society's funds may be judiciously applied towards encouraging domestic Manufactories such as Fulling and other Mills.

Charles MacPherson Esq., M. P. P., made a few observations upon the partial manner in which the last speaker had advocated

protection. He (Mr. Crane) would protect two interests, and leave the third to take care of itself! He thought there was something of the stiffness of old feelings and habits in the observations of his friend; and would be glad as a younger man, to share with him a portion of the warmth which he felt himself, taking in return, a part of that wisdom and experience which it was well known his hon. friend possessed in so eminent a degree. He was glad to see his Honor the Master of the Rolls in the dignified position which he occupied as President of this Society. It was a sure guarantee that the business of the Society would be impartially conducted and that while the interests of the Farmers and Mechanics were sustained, those of the lumbermen would not be neglected. He (Mr. MacPherson) was a friend to the farmers; he had been brought up on a farm, and its bread was he thought the sweetest which he had ever tasted in his life; but he wished to see fair play to all, and all prospering together.

Mr. KERR addressed the meeting for a few moments, acknowledging his thanks for the able and handsome manner in which the claims of the society had been responded to. From the most influential parties, and that too from every section of the Province, there now seemed to be only one general wish to prosecute with renewed vigour the objects of the Society; and he as one of its members, felt delighted that in advocating its views throughout different parts of the country. his labour had been more than rewarded in the hopes now opening up for its more extended usefulness.

(The meeting here closed.)

EXTRACT FROM MINUTES.

A Regular Quarterly Meeting was held in the Office of the Master of the Rolls on the 2nd day of April, 1851.

The Hon. N. Parker took the Chair.

Dr. Robb from the Committee on Draining submitted their Report.

Mr. Fulton on behalf of Messrs. Gray and Dayton, read a Report on the arrangement of Barns.

Mr. Kerr submitted a Report On the utility and best modes of giving encouragement to Settlers on New Lands, and on the occupying and clearing of Wilderness Lands.

Read a Report from Mr. J. T. Smith and Mr. J. McAdam on the subject of Woolen Manufactories.

Mr. Watts, Senior, submitted an *interim* Report on the subject of a Provincial Show and Fair.

Mr. Beckwith from a Committee on the management of farms, and on a Rotation of Crops, stated that the publication by the Society of the translation of the Canadian Pamphlet on the same subject had superseded the necessity of a Report from them.

Dr. Robb read a Report from the Committee on the best mode of of disseminating information in furtherance of Agriculture, Home Manufactures, and Commerce throughout the Province.

Dr. Robb from the Committee of Appropriations read a scale of appropriations of the Funds of the Society now on hand,

Whereupon Ordered, That the said Reports be referred to a Committee to revise and superintend the Printing of the same, or parts of the same. Further Ordered, That Dr. Robb, Messrs. Allen, Beckwith, and A. Inches do constitute the said Committee.

R. FULTON, *Recording Secretary.*

REPORT ON APPROPRIATIONS.

The Committee appointed to prepare a scale of Appropriations for the several objects contemplated by the Society, desire to submit the following Report:—

1. They recommend that the sum of £80 be appropriated towards the encouragement of Mills and Manufactures in the several Counties where encouragement had been held out for the same.

2. Also,—The sum of £20 towards procuring useful works of reference for the guidance of the Executive Committe, &c.

3. Also,—The sum of £10 towards the contingencies of the Society.

4. Also,—The sum of say £30 for the printing and distribution of the Tract on Farm Management.

5. Also,—The sum of, say, £30 for the publication of the forthcoming Report.

6. And for the re-publication of the old one in whole or in part, say £30.

Your Committee would also recommend the following Premiums to be awarded by the Society in the course of the ensueing year:—

7. £10 for best 10 Barrels of Beef or Pork, cured and packed according to the Society's directions, and certified by the owner or Captain of a Ship to have been as fit for Ship's purposes, as that which is usually carried.

8. £5 for the best Essay On the management and improvement of Orchards in this Province.

9. £5 for the best Essay On the improvement of the Woollen Manufactures of this Province, more particularly as regards fineness of texture, and permanency of dye.

10. £5 for the best Essay On the best ways of using Turnips and other Roots in the feeding of Stock, together with the best method of storing and preserving the same through the winter.

11. For the best Managed Farm as determined by the answers to a series of numbered questions, to be drawn up on the plan of the New York State Society, and circulated with the Society's Reports for the year, A Silver Cup with appropriate inscription, of the value of £10.

12. For the the second best do., as determined in the same way, A Silver Cup with inscription, of the value of £5.

13. For all others who may furnish full answers to the questions thus proposed, a set of the Albany Cultivator, (or other Publication of equivalent value,) for the year 1852, say 12 at 5s.,—£3.

The Scale of appropriations would therefore stand as follows :—

Mills and Manufactures,	£80
Books,	20
Contingencies,	10
Printing Canada Tract,	30
" New Report,	30
" Old Report,	30
Premiums for putting up Salt Beef, &c.	10
" " best Managed Farm,	10
" " second best do.,	5
" " third best do.,	3
" " Essay on Orchards,	5
" " " Turnips,	5
" " " Woolen Manufacture,	5—£243

J. ROBB,
A. E. BOTSFORD,
D. S. KERR. } *Committee.*

LIST OF PREMIUMS

Offered by the New Brunswick Society for the encouragement of Agriculture, Home Manufactures and Commerce.

I. For the first ten barrels of first or second quality of Beef or Pork cured and packed according to the directions contained in the first series of Reports of this Society, and certified after trial by the Owner, Master, or Consignee of any Ship or Vessel sailing from the Province to have been as good for Ships use as that which is usually imported for the same purpose—the sum of Ten pounds.

II. For the best Essay on the management and improvement of Orchards in this Province, founded on practical observations—the sum of Five pounds.

III. For the best Essay on the improvement of the Woolen Manufactures in this Province, more particularly as regards fineness of texture and permanence of dye—the sum of Five pounds.

IV. For the best Essay on the best ways of using Turnips and other Root Crops in the feeding of Stock, together with the best modes of storing and preserving the same throughout the Winter, to be founded as far as possible on practical experience—the sum of Five pounds.

V. For the best managed Farm of less than 25 acres, exclusive of Wood Land and Waste Land, [regard being had to the quantity and quality of produce, the manner and expense of cultivation, and the actual profits] as determined by written answers to a series of numbered questions contained in the annexed Schedule, founded on that of the New York State Society—a Silver Cup, with appropriate inscription, of the value of Ten pounds.

VI. For the second best ditto, as determined in same way—a Silver Cup with suitable inscription, of the value of Five pounds.

VII. For all others who may furnish full answers to the questions thus proposed, there will be awarded a set of the Albany Cultivator for 1852, or other Agricultural Publications of equal value.

VIII. For Mills and Manufactures in the various Counties of the Province where encouragement on the subject has been already held out—the sum of Eighty pounds.

N. B.—This List of Premiums was published in the Royal Gazette of April 16th and 23rd, and 500 copies of it in a separate form were likewise circulated about the same time.

SCHEDULE.

Soils, &c.

1. Of how much Land does your farm consist? and how much wood, waste, and improved land respectively?

2. What is the nature of your soil and subsoil? Is there limestone in it? What rocks are found in it?

3. What do you consider the best mode of improving the different kinds of soil on your farm? Of clay soil, if you have it—of sandy soil, and of gravelly soil? Answer separately.

4. What depth you plough? What effect has deep ploughing had on various soils?

5. Have you made any experiments to test the difference in a succeeding crop, between shallow, common or deep ploughing?

6. Have you used the subsoil plough? and what have been its effects on different soils and crops?

7. What trees and plants were indigenous to your soil? Give the name of each.

Manures.

8. How many loads of manure (30 bushels per load) do you usually apply per acre? How do you manage your manure? Is it kept under cover; or are there cellars under your barns or stables, for receiving it?

9. What are your means and what your methods of making and collecting manure? How many loads of manure do you manufacture annually? How many do you apply?

10. How is your manure applied; whether in its long or green state, or in compost? For what crops, or under what circumstances do you prefer using it, either in a fresh or rotten state?

11. Could you not cheaply, essentially increase your supply of manure by a little extra labor?

12. Have you used lime, plaster, guano, salt, or any substance not in common use as manure? In what manner were they used, and with what results?

Tillage Crops.

13. How many acres of land do you till? and with what crops are they occupied, and how much of each crop?

14. What is the amount of seed planted or sown for each crop—the time of sowing—the mode of cultivating, and of harvesting—and the product per acre? Have any insects been found injurious to your crops? If so, describe them and the remedies adopted.

15. What kind and quantity of manure do you prefer for each, and at what times, and in what manner do you apply it.?

16. How deep do you have manure covered in the earth, for different crops and different soils?

17. Have your potatoes been affected with any particular defect or disease, and have you been able to discover any clearly-proved cause for it, or found any remedy?

Grass Lands, &c.

18. What kind of grasses do you use? How much seed of clover, or the various kinds of grass do you sow to the acre? At what season of the year do you sow,—and what is the manner of seeding?

19. How many acres do you mow for hay, and what is the average product? At what stage do you cut grass, and what is your mode of making hay?

20. Is any of your mowing land unsuitable for the plough, and what is your mode of managing such land?

21. Have you practised irrigating or watering meadows or other lands, and with what effect? What is your particular mode of irrigation, and how is it performed?

22. Have you reclaimed any low, bog or peat lands? What was the mode pursued, the crops raised, and what the success? What length of drains have you on the farm, and how are they constructed?

Domestic Animals.

23. How many oxen, cows, young cattle and horses do you keep, and of what breeds are they?

24. Have you made any experiments to show the relative value of different breeds of cattle or other animals for particular purposes, and with what results?

25. What do you consider the best and cheapest manner of wintering your cattle; as to feed, watering and shelter?

26. How much butter and cheese do you make annually, from what number of cows, and what is your mode of manufacture?

27. How many sheep do you keep? Of what breed or breeds are they? How much do they yield per fleece, and what price does the wool bring? How many of your sheep usually produce lambs, and what number of lambs are annually reared? How much will your sheep or lambs sell per head to the butcher.

28. What do you consider the best and cheapest manner of wintering your sheep as to food, watering and shelter? How many in proportion to your flock (if any) do you lose during the winter. What difference (if any) between fine and coarse wooled sheep in these respects.

29. How many swine do you keep, of what breed are they, how do you feed them, at what age do you kill them, and what do they weigh when dressed.

30. What experiments have you made to show the relative value of potatoes, turnips and other root crops, compared with Indian corn, or other grain, for feeding animals, for fattening or for milk.

FRUIT.

31. What is the number of your apple trees? Are they of natural or grafted fruits? and chiefly of what varieties?

32. What number and kind of fruit trees, exclusive of apples, have you? and what are among the best of each kind?

33. What insects have attacked your trees, and what method do you use to prevent their attacks?

34. What is your general management of fruit trees?

35. What other experiments or farm operations have produced interesting or valuable results?

FENCES, BUILDINGS, &c.

36. What is the number, size and general mode of construction of your farm buildings; and their uses?

37. What kind of fences do you construct? What is the amount and length of each kind? And their cost and condition?

38. To what extent are your various farming operations guided by accurate weighing and measuring? And to what degree of minuteness are they registered by daily accounts?

39. Do you keep regular farm accounts? Can you state the annual expense in improving your farm, and the income from it, with such precision that you can at the end of the year, strike an accurate balance of the debt and credit? Would not this practice conduce very much to close observation, careful farming, and in the end much improve your system, as well as better your fortune?

NOTICE TO CANDIDATES.

1. However concisely the subjects themselves be announced ample information is required concerning them. It is expected that the above questions will be answered with precision and minuteness, the applicant submitting the information according to his best knowledge, and belief of its correctness, of which a Certificate or other satisfactory proof shall be given.

2. The information shall, as much as possible, be founded on experience or personal observation, and not merely on what is already in print.

3. It shall be methodically digested, and if necessary, illustrated by Drawings or Models made to scale.

4. Each Essay or Paper shall be accompanied with a sealed Note containing the name and address of the Author, and inscribed with

a motto which shall correspond with a similar motto on the head of the Essay or Paper.

5. None of the Notes except that attached to the successful Papers, shall be opened; all the other Papers shall be held until claimed by their respective Authors.

6. The successful Essay or Papers shall become the Property of the Society, and may be published in whole or in part by the Society.

7. All Essays and Papers to be sent in, free of Postage, before the 10th December, 1851, to Dr. ROBB, Corresponding Secretary of the Society. The awards are payable on or after the 10th February, 1852. Decisions of the Committee of the Society will be final.

8. One barrel of the Beef or Pork to be brought back for inspection, and Certificate to be sent in on or before the 1st day of May 1852.

9. Premiums in Plate may, if the Executive Committee see fit, be paid in an equivalent of money, on the application of the successful Candidates.

J. ROBB, M. D., *Secretary.*

Fredericton, 10th April, 1851.

REPORT ON IMMIGRATION, &c.

The Committee of the New Brunswick Society for the Encouragement of Agriculture, Home Manufactures and Commerce throughout the Province, appointed at a late Meeting of the Society to enquire into the best method of facilitating Immigration into this Province, Report the following, viz:—

The great facility for procuring passages in European Ships coming to Saint John for Timber has been the reason why so many Immigrants have arrived there, and will probably continue to be an inducement for many more to come during the continuance of the present Timber Trade.

Of the passengers who have arrived it has been observed that they appear to have been influenced by different intentions, and have followed very different pursuits, in most of which however they had not been very successful.

1st. Some have come to this Province for the purpose of procuring land from Government at a cheap rate, and in this they have generally succeeded; although some have failed in the outset for want of suitable instructions, either by a mistake in the proprietor of the Soil, or by an injudicious selection, yet their perseverance has been proverbial and in a second attempt they have seldom failed in becoming respectable freeholders as a reward for their privations and praiseworthy exertions.

2nd. Others have come with a small capital which they have expended in the purchase of cultivated land; in which case they have generally shown themselves better judges of a cultivated soil than of Woodland.

3rd. Others have arrived without capital, but with good health and industrious habits determined to earn the means of procuring Land: and they have hardly ever failed of becoming useful and respectable settlers. In some instances they have rented farms and eventually become Lords of the Soil, but whether as Tenants or common labourers they have greatly contributed to the general plenty, and have been amply rewarded for their industry.

4th. Some have arrived at our Seaports and only remained in the Province as a place of rest where they might procure the means of following their friends to a Foreign Country, and these seldom fail in

their purpose. They have generally earned the amount of their passage and are gone, and excepting only the pauper immigrants they are the most useless, or rather injurious class that visits our Province.

To afford every reasonable encouragement to the useful classes of immigrants who may arrive, and to give them a suitable direction in a path in which they are strangers,—it appears desirable to this Committee that they should be first directed to the Immigrant Agent of the Port where they arrive in order to obtain the requisite information. And as no regular method has been hitherto adopted for acquiring or imparting that information, your Committee recommends the following method as one likely to answer the desired end, viz:—

That in each County there should be an Assistant Immigrant Agent, whose duty it should be to enquire and obtain from all the different districts in the County, information of the number of Farms for sale in those Districts,—partially or thoroughly improved—at prices from £———to £———per acre or otherwise.—The number of Farm-tenants required or dwellings to be let for the accommodation of families,—number of labourers likely to find employment male or female—and at what probable terms or wages—and also what Mechanics are wanted, &c.

What houses or dwellings to let to immigrants.

What farms to be leased to good tenants—with or without stock.

What farm labourers wanted—male or female &c.

What carpenters,—Smiths or Shoemakers, &c.

Answers to these queries, which might be easily condensed in a Tabular form, would enable the County Agents to inform the Provincial Agent of the wants of each County.

It would then be the duty of the Provincial Agent, upon every enquiry or application of immigrants to note in his Book their names in alphabetical order, with their age, time of arrival, date of application, place of nativity or the Port they came from, their occupation, and intention in coming here, and also the place they proposed to journey to.

He will then be able to say to the applicants, that in such a County there are such facilities for your settlement, or that in the County of ——such inducements are held out—choose which you will, and I will give you the address of the Agent.

By this method the Agent's books would form a most valuable Immigrant Directory for future reference, and it is presumed that no Agent will intentionally send useless or pauper immigrants into an Agricultural district, and that when he finds they are bound for ano-

ther country, he can direct them to the packets sailing there—noting the place in his book.

It has been objected that the Salaries of so many Agents in the Province would be too expensive, but your committee are of the opinion that the good maxim of only "rendering to every man according to his work" will remove the necessity for that objection,—and as Agriculturists we can recommend no other rule.

In populous Counties the labour might be considerable, while in some it would amount to very little: but in every situation where the duty is well performed, it could not fail to be most valuable to the Immigrants,—and also to the Province generally.

All which is respectfully submitted,

C. L. HATHEWAY, *Chairman.*

11th June, 1850.

Crown Lands
Have there been new Laws enacted since 1850

To the New Brunswick Society for the encouragement of Agriculture, Home Manufactures, and Commerce throughout the Province.

Your Committee to whom it was referred to enquire and report &c., on the utility and best modes of giving encouragement to settlers on new land farms, and to the occupying and clearing up of Wilderness Lands, beg leave to say, that they have bestowed on this subject, considerable attention and to *Report* that in their opinion the giving encouragement to settlers on new land farms, and to the occupying and clearing up of Wilderness Lands is vastly important towards serving the best interests of this country.

In dealing with this subject your Committee will *firstly* notice some of the causes which in their opinion, have obstructed emigration in its flow to this Province, and clogged the advancement of actual settlers within it, and *secondly* will propose some practical changes, which, if carried into effect, must greatly improve the condition of back settlers, and largely tend to increase the population and wealth of the Province.

Firstly the Evils.—One of the greatest obstructions, to emigrants and others, wishing to settle on new land farms in this country, is the bad system or absence of system in the Government of the Province in relation to Crown Lands,—unable in many instances from want of previous survey, to inform an applicant (except by prophecy) of the quality or value of lands he seeks to own—he is often necessitated to choose in the dark—to select, in ignorance of the real character and value of the land,—have a survey made, at great expense, and afterwards to attend a sale where another, by bidding above him, may become the purchaser of the chosen spot—in seeking land thus attended, with such uncertainty, and expense, delay and difficulty, besides a multitude of other obstructions, the poor man is often discouraged in the outset and his heart fails him from settling at all, if his courage or his necessities should urge him to persevere, he has often to force his way and have his land laid off without reference to any plan for a future district Township, or other position for a community of people to settle together in, as is laid off in the States—the Canadas and other countries, and is often made to feel this inconvenience all the days of his life.

Another obstruction arising from the system, is the want of a road through the Township or district laid out or projected by competent

authority, that a settler might know, where best, to make his clearings —erect his buildings, construct his fences and make a road, where the public money may be beneficially applied—at present the settler commonly strolls through the woods, unacquainted with the geographical position of the wild he is struggling in—opens a winding path, perhaps, running diagonally across his own and other lots and on which money is frequently, year after year, spent, till finally the rout is abandoned and the money and labour thrown away.

Another obstruction to the settling of new land especially by emigrants, is the want of information as to the position, qualities &c., of land ungranted and the granted land in the immediate neighbourhood with some cleared and which might probably be for sale and the probable prices, together with some idea of distance and means of conveyance from the Sea Port Towns or landing places to the neighbourhood of land available for settlement—a stranger to the country, especially if he have not arrived here, is utterly at a loss what to do, or what direction to steer, to look for lands or how long it will take him to get from a Port, such as Saint John to ungranted or granted land lying in rear of the first tier of lots in the McGundy Settlement, Parish of Prince William, in York County, or Howard Settlement in Dumfries Parish in the same County, or to any other Settlement in a Parish, of any County of the Province.

It often happens too that large tracts of granted lands, unoccupied by the owners, lie on the high way, in the neighbourhood of the settlers, and others lie between the high way and the land of a back settler through which he is necessitated to make the roads and keep them open, at his own expense, thus adding to the value of the rich man's property, who pays nothing towards the roads of the settlement.

Much inconvenience is generally suffered by back settlers, in the want of even a tolerable road to bring to market any produce they may have to sell, or return with necessaries they may require to buy —the like inconvenience is experienced by them in the want of roads to get to Mills.

Great inconvenience is also felt by occupants and others, settling on Wilderness Lands from the want of a Minister of their own persuasion and a good School in their neighbourhood, serious injury is generally suffered by families in the Woods, from the want of proper instructors.

Owing to the distance of some of the Settlements from the Shire Towns or more populous places, or from the great roads of the country and the difficulty of getting to markets, they are comparatively shut

out from getting a fair share of the circulating medium, obtainable by persons in more improved parts of the Province and it is often very difficult for such settlers to raise never so small a sum of money.

They occasionally suffer much and have scarcely any crop from the want of seed,—frequently in want of seeds of good quality as well as seeds of different descriptions—they are in most cases deficient in raising the different kinds themselves and in attempting to purchase are often at a loss where it may be had, from there being no known place of deposite for the sale of such articles.

The back Settlements are in many instances much prejudiced from the want of Agricultural and other information and with some exceptions are not in the way of getting a fair share of the premiums offered by County Agricultural Societies. Sometimes the premium list is so regulated that a back settler cannot avail himself of it—he may raise an excellent crop and deserve a premium for much that he has done but is unable to produce you an extraordinary specimen of carrots and so with many other things for which he is unable to compete.

While the settlers are out of the way of ordinary competition neither the Legislature nor Societies hold out inducements such as bounties for large crops of grain or other crops, or the extensive clearing up of new land as is, in many cases done in the adjoining States and other countries which induce the settlement of new lands, it is admitted however that this position is open to question, especially if the giving of bounties be not properly limited and narrowly watched to detect imposition.

Farmers in back Settlements lose sadly by not having some system of meeting, to discuss their own wants and to consider together how they may improve their condition in relation to their own Agriculture, Home Manufactures and Commerce—they do not generally appropriate any leisure evening or hour for assembling together to think and act for themselves, but leave it to others to think and act for them.

Secondly the remedies. Crown lands of the Province fit for actual settlement should, at once be laid off and numbered by competent Surveyors or Officers of a district under the Government in shapely and suitable blocks—Districts—Townships or Squares from one to twenty lots or of such a size as might be adapted to the situation of the locality where they were, and actually surveyed, planed and reported on to the Land Office, with such plain description as to the land and timber thereon, that an applicant could obtain the information he required. The expense of surveying, planing and report-

ing upon the lands of each district to be equally divided and added to the upset price of each lot, the cost of survey in this way, would not be a quarter, perhaps not an eighth, nor even a tenth of what a settler generally pays for surveying a single lot. The block or District might be advertised to be sold on a certain day, the *bona fide* purchasers might pay or settle for their lands and get their grants at once; and the officer of the district might become the purchaser, *pro forma*, of the lots not actually sold, and on application to him with a deposit receipt for the money, an applicant could get his land at once. This system your committee are informed is adopted with excellent effect in the State of Maine, and in the Canadas. This proposed alteration forming the necessary basis of what is hereinafter recommended, and there now being between six and seven millions of good ungranted lands fit for settlement in this Province, it is recommended that the old system be at once abandoned and the one suggested be brought into operation and made to apply as far as it is practical, even to reform neighbourhoods which have been partially destroyed by the old system. Under some such mode of laying off lands, ten, twenty, thirty, forty or more families might choose their own company and settle at once, on one or more Blocks, Townships or Squares, and (subject to certain restrictions,) the Government might use its discretion to give a worthy settler fifty acres of land in consideration of his large family and immediate occupation or other good reasons to warrant such a donation.

2. A road judiciously laid out or projected by the Government or other competent authority, with proper plans and returns to the land office, through such blocks or districts as above described, leading from one Section of the country to another or through the district to the high way so that settlers might know where, *best* to make their Clearings—place their buildings—erect their fences—improve their lands, and whereon the statute labour and public monies might be expended with advantage, are subjects of great importance to the convenience and advancement of settlers on new land farms. This system your committee are informed, is practised in the adjoining States and the Canadas, and they can see no reason why it should not obtain in this Province—and further, no service could more contribute to the clearing of the forests of this country, than for the Government to project and lay out public roads extensively through wilderness lands fit for settlement, from one section of the country to another. The natural formation of the soil seems to call for this —the earliest settlements of the Province being commonly on the Sea Shore and on the Borders of Lakes and large Rivers, with

chains of hills and mountains, to a great extent running parallel thereto, so as virtually to shut up the back from the front lands; a well selected road in rear of those mountains, running from one public section of the country to another, would unlock the wilderness—and open a way across the finest soil.

3. A book of reference in the nature of a Directory, chiefly referring as well to granted and part cleared lands which might probably be had at moderate prices, as to ungranted lands laid off with roads by the Government available for emigrant settlers, together with a brief reference to the distances and modes of conveyance from the usual sea Ports or landing places in the Province to the neighbourhood of such lands, published and properly circulated, would be an excellent guide not only for persons, in the parent countries, wishing to come and settle in the Province, but for others desiring to choose a spot to locate themselves and their families for life.

4. As to large blocks or grants of wilderness lands being allowed as hitherto, to be unimproved by the owners—locked up from occupation by high prices, in the prospect of improving their value by forcing settlers to do it, who from necessity are compelled to make roads through such lands and keep them open during winter, is a crying evil and shamefully unjust, not only to the settlers but to the interests of the Province at large and should no longer be tolerated. Such owners, as in the adjoining states, should be compelled to bear their fair proportion of the expense in making the road—their lands assessed for it and in default of payment—the land sold.

5. In the laying out of blocks or districts and the projecting of roads through the same, proper respect should be had to Mill-sites and water powers and to enabling the settlers to get to mills and markets, and every reasonable means should be afforded them for speedily making such roads as convenient and complete as possible.

6. For the better advancement of religion and education, in back settlements, it would be well if the Government, in the survey of districts, should reserve a piece of ground for the use of a minister, and the erection of a place of Worship, and another for a School Master and School House, and in the settlement of Blocks or Districts, it might be well for persons of the same persuasion, as far as practicable to settle together, not for engendering uncharitable feelings towards other Denominations, but to enable them to unite in getting up a Church of their own persuasion, and for the more frequent visits of clergymen of their own denomination—the erection of a comfortable and commodious school house and the employment

of a competent Teacher should receive the early attention of the settlers.

7. The distance of many back settlements from markets and populous places where public money is expended—the state of the roads —want of conveyance, information and notice peculiar to their position, placing them unfavourably in regard to a share of the circulating money of the country, the disadvantage should be met, as far as possible, by aiding them in those things for which the money is required. The Legislature have done this to some extent by passing in 1849, two excellent Acts to enable settlers to make payments to a certain extent for these lands, by working on the roads. As these Acts or their details may not be generally known, your Commitee will give at the end of this report an abstract of them with the Government Regulations for the information of Settlers; where money is to be expended on the great Roads or other Public Works of the Country, a timely notice thereof as far as possible should be extended to the back Settlements.

8. The necessary seed—its quantity, quality, and the different descriptions thereof, not usually on hand or attainable in settlements, is a subject of vast importance to the comfort and prosperity of back settlers. County and district Societies might take the subject into consideration and have a depository in the Shire Town of the country or other known place, and small depositories in each Settlement of which notice should be given and where it might be purchased by back settlers.

9. Agricultural and other information and the chance of a fair share of Agricultural premiums deserve the attention of all persons and Societies having the good of the country at heart; and these subjects ought to be taken into special consideration by County and District Societies, it should be in part, the business of such Societies to put into circulation, in back neighbourhoods, Tracts or Pamphlets on Agricultural, Manufacturing, and Commercial subjects relating to the interests of the settlers *gratis*, and communicate with them as often as possible—the premiums of such Societies likewise should be regulated, as well to encourage the amount of productions—the extent of Clearings and other praiseworthy labours peculiar to the circumstances of *new* Settlements; as to the more perfect yield in small quantities of the *old*—some allowance might also be made to enterprising competitors, bringing their articles with difficulty and expense from afar.

10. As the greatest source of comfort and wealth that a farmer can have in this country, is the profits of Stock and the produce of

the dairy, and as we have a great Home Market for these products, as well as for bread stuffs and meats of all kinds, it should be the aim of back settlers to avail themselves of the advantages of supplying the market as early as possible, a large stock must be fed, but mere hay will not do it, nor is it a crop that can be depended upon, with any degree of certainty—extensive pasture lands—root crops, straw and other feed must be called in aid, for attaining the desired end. To further this combined object, especially for raising our own bread in this country, your Committee think it might be well for the Legislature to offer certain premiums or bounties to new settlers for the extensive raising of grain crops, as has been done with great success in the State of Maine, perhaps it might be extended to the raising of large quantities of a certain kind of root crop, and to the annual laying down of extensive new land fields for hay and pasture purposes.

11. For the better carrying on of all objects connected with the Agriculture, Manufactures, and Commerce of the neighbourhood—the minds of the settlers should, *in the first place* be informed—reading, thinking, conversing with neighbours, and meeting together, at some School House, at a neighbours house or other convenient place, on a leisure evening, to discuss the objects pertaining to the settlers interests, are modes well calculated to improve the mind and thereby lead to improve the condition. Perhaps Farmer's Clubs, on a scale which will be submitted by one of our Committees to night, may be better than any other to attain so desirable an end, it must prove to them a great source of information and pleasure, let them read the various Reports of this Society, as well as other information, and they cannot fail to have ample topics for discussion, it is probable there will be a difference of opinion in their clubs, and it is well that it should be so, that truth may be better elicited, there may be matters in our Reports which some at the meeting may not be prepared to assent to, and perhaps contradict, even this will be beneficial, if it set the dissenting member a thinking and advancing his own ideas among his fellow settlers. As to Agriculture, let them not suppose that it is too soon for them to think of good farming in relation to new land. Instead of considering how they can *restore exhausted* lands, let them reflect how they are to *keep* their new land from being *exhausted*. In reference to Home Manufactures let it be their pride to make themselves independent, and see how many manufacturing establishments are wanted in their neighbourhood, and how soon aided by subscriptions among themselves or otherwise they can erect the necessary Mills, Blacksmith's and other Shops, and how rapidly they can annually add to them. In regard to their Home Commerce, either be-

tween the settlers themselves or between them and more populous places, let it be their aim to produce a surplus, and sell it to the best possible advantage in any market they can desire, and take in return money and those *necessaries that cannot be made at home or done without.*

In regard to their wants, let the settlers rely, on no other help than God and their own independent exertions, let them not suppose that any suggestions in this Report are intended to abate their efforts, or to lull them into idleness or complaining, but designed merely to suggest what is fairly their due—to stimulate them to greater exertion, and to encourage them in those pursuits which are calculated beyond all others, to add to their wealth and to the happiness of this country.

The foregoing are the principal evils and remedies which have occurred to your Committee and which, if attended to, might give greater encouragement to settlers on new land farms, and to the occupying and clearing up of wilderness lands, and while your committee may have omitted very important topics—may be wrong in some of their positions, and do not pretend to have described the practical details for carrying the proposed changes out, they trust that some of their observations may be deserving of notice, and lead to a more full enquiry of so important a subject.

DAVID S. KERR, *Chairman.*

12 VICTORIA, CAP. IV.

AN ACT to facilitate the sale and improvement of Crown Lands in certain cases.

Passed 8th March, 1849.

"Whereas every facility and encouragement should be afforded for "the occupation and improvement of the ungranted Lands in this "Province: And whereas it is deemed advisable that the Government "should be invested with power to dispose of the Crown Lands in "certain cases by private sale, upon such terms and conditions as "may be most encouraging to the purchaser;"

1. Be it therefore enacted by the Lieutenant Governor, Legislative Council and Assembly, That notwithstanding any thing contained in the Fifth Section of an Act made and passed in the eighth year of the Reign of His late Majesty William the Fourth, intituled *An Act for the support of the Civil Government of this Province*, it shall and may be lawful for His Excellency the Lieutenant Governor or Administrator of the Government for the time being, by and with the advice and consent of the Executive Council, from time to time, and as often as occasion may require, and with a view to the early disposal of the vacant Crown Lands to persons who are able and willing to improve the same, to cause portions thereof to be surveyed and laid off in such place and in such way and manner as may be deemed most advisable.

II. And be it enacted, That it shall and may be lawful for His Excellency the Lieutenant Governor or Administrator of the Government for the time being, by and with the advice and consent aforesaid, to sell and dispose of the Lots so surveyed and laid off as aforesaid, by private sale, for such price as may be deemed advisable, and upon such terms of payment, either in Money or in opening and making the Roads through such Lots, or otherwise, as may most readily facilitate the occupation and improvement thereof by orderly and industrious Settlers; provided always, that no Lot be sold at a less rate than three shillings per acre, or shall contain a greater quantity than one hundred acres.

III. And be it enacted, That His Excellency the Lieutenant Governor or Administrator of the Government for the time being, by and with the advice and consent aforesaid, shall have full power and authority during the continuance of this Act to make, publish and

enforce such Rules and Regulations as may be required for carrying out the objects of this Act.

IV. And be it enacted, That this Act shall not come into operation or be in force until the first day of September next.

REGULATIONS.

For carrying into effect the provisions of the 12th Victoria, Cap. 4, intituled "An Act to facilitate the Sale and improvement of Crown Lands in certain cases."

1. That the Local Deputies do, as soon as practicable, report to the Surveyor General the most desirable Tracts of Land for immediate settlement in their respective Districts, and the probable number of Lots that may be required for immediate settlement, and that similar Reports be made from time to time as occasion may require.

2. That all persons desirous of selecting any particular Tract for Settlement, under the provisions of the above Act, do signify the same forthwith either to the Local Deputy of the County or to the Surveyor General, in order that such Tract, with the road to and through the same, may be laid off preparatory to Sale.

3. That the Applicants in all cases shall state in their Petition whether they wish to pay for their Land in Money or by Labour upon the Roads.

4. That no Land will be sold at less than three shillings per acre, and no person shall be allowed to purchase more than one hundred acres under the provisions of the above Act.

5. That where the purchaser shall prefer paying the whole amount in Money on the day of Sale, a discount will be made thereon of twenty per cent.

6. That where the purchaser desires to pay in Labour upon the Roads, he shall, upon making his application, pay the sum of twenty shillings towards defraying the expenses of Survey.

7. That where the purchase is made for Money under the Regulations, if the payments required are not duly made according to the terms of Sale, and any Instalment is not paid, on or before the day when it becomes due, the Land in all such cases shall immediately upon default made be open to re-sale, and upon application made shall be disposed of without reference to any improvements which may have been made by the former purchaser.

8. That all payments of Money shall be made to the Local Deputies, except in case of purchases in York or Sunbury, when they will be made to the Receiver General.

9. That the Local Deputies shall render Returns, make remittances, and be entitled to receive and retain the same Commission on

Monies received under the above Act, and by virtue of these Regulations, as they do at present under the Regulations of the 11th May, 1843.

10. That as the avowed objects of the Legislature in passing the above Act was to secure the occupation and improvement of the ungranted Lands of the Province, no neglect of occupation and improvement will be permitted for a longer period than three months, unless upon good cause shewn therefor to the satisfaction of His Excellency in Council; and in case of the non-occupation and improvement of any Lot beyond that time, and not satisfactorily accounted for, the Lot shall be open to re-sale, and upon application made will be disposed of without reference to any improvements made by the former purchaser.

11. That the occupation and improvement under the last Rule shall be by *bona fida* settlement upon the Lot, and shall be such as plainly to indicate the intention of the purchaser to do all in his power to make a permanent residence thereon.

12. That in all cases where the purchaser is to make payment by Labour on the Roads, he shall perform the labour at such times and at such places as shall be fixed upon by the Commissioners to be appointed for that purpose; and in no case shall less work be done in any one year than will be equal to one-fourth of the whole purchase money.

13. That if any purchaser shall refuse to preform labour when required as aforesaid, the Commissioners shall forthwith report the same; and unless good cause be shewn for such refusal, the purchaser so refusing shall forfeit his right under the Sale, and his allotment shall be open to new application, and will be sold without reference to any improvements he may have made thereon.

14. That no Grant of any Lot purchased under the provisions of the above Act shall issue until it be proved to the satisfaction of the Lieutenant Governor and Council that, in addition to payment for the Lot by Money or Labour, the purchaser has actually resided thereon for the space of one year, and has brought at least ten acres thereof into a state of cultivation.

15. That if any purchaser do remove or cause or permit to be removed from his Lot any Timber or Logs before he shall have received a Grant of such Lot, such Timber and Logs shall be seized and forfeited to the use of the Province; and the Lot from which such removal shall have taken place shall be open to new application, without reference to any improvements of the original purchaser.

16. That in case any purchaser shall be detected in any fraud, deception or misrepresentations in his dealings with the Government under the above Act and these Regulations, he shall thenceforth be excluded from all the benefits and advantages of the said Act.

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12 VICTORIA, CAP. XIX.

AN ACT to authorize the commutation of Debts due the Crown by Settlers in certain cases for work on the Public Roads.

Passed 27th March, 1849.

"Whereas for the better encouragement of Settlers on New Lands who have not paid the amount of their purchase money, it is deemed advisable to provide for the commutation thereof, in certain cases by work to be performed on the Public Roads;"

I. Be it therefore enacted by the Lieutenant Governer, Legislative Council and Assembly, That from and after the passing of this Act it shall and may be lawful for His Excellency the Lieutenant Governor or Administrator of the Government for the time being, by and with the advice and consent of the Executive Council, in all cases where purchasers of Crown Lands who have improved, and are actually resident upon their respective Lots, but have not yet paid the whole of the purchase money therefor, and where the principal money due in any case does not exceed the sum of twelve pounds, to order and direct that the purchasers respectively shall have permission to do and perform work and labour upon the Public Roads in the vicinity of and as near as may be to their respective Lots, in payment of the balances remaining due on the said purchases.

II. And be it enacted, That in order that the said work may be efficiently performed, it shall and may be lawful for His Excellency the Lieutenant Governor or Administrator of the Government for the time being, by and with the advice and consent of the Executive Council, forthwith to appoint in and for each County, or in and for any particular District, Parish or Settlement, one or more fit and proper person or persons as Commissioner or Commissioners to superintend and direct the performance and application of such labour.

III. And be it enacted, That each and every person who may be indebted to the Crown in a sum not exceeding as aforesaid twelve pounds, for on account of the purchase of Land, who is an actual and *bona fide* settler on the Lot for which he is so indebted, and who is desirous of availing himself of the benefits and advantages of this Act, shall signify the same on or before the fifteenth day of June next, to

such Commissioner as may be appointed for the Parish, District or Settlement where such Settler may reside, and shall at the same time deposit with such Commissioner the sum of one shilling on each and every pound of the debt due from such Settler, and for which he is desirous of performing work.

IV. And be it enacted, That each and every Commissioner shall keep a Record of the names of all persons who shall so report themselves as aforesaid, and shall in all cases satisfy himself that every such person is entitled to the privileges and advantages of this Act, before allowing him to avail himself thereof.

V. And be it enacted, That each and every Settler so recorded shall do and perform such part and portion of work according to such specifications, and at such place, and within such time as the Commissioner may direct and appoint, and as near as may be to the residence of such Settlers; provided that no part of such work be performed after the first day of October.

VI. And be it enacted, That in the cases aforesaid, no Road shall be made of less width than sixteen feet between the ditches, and that a sum not exceeding five shillings per rod, in the discretion of the Commissioner, be allowed on account of any such work; provided always, that in any case when it may be necessary to construct a Bridge, the Commissioner shall specify in what manner the same shall be built, and shall estimate as near as may be the value thereof, in reference to the rate before mentioned, and which, when done, he shall allow to the parties building the same as and so many rods of Road.

VII. And be it enacted, That as soon as may be after the first day of October, every Commissioner shall make a return of his proceedings under this Act, specifying therein the name of each Settler who may have worked, the number of he has made, and the rate allowed for the same, and the number of Bridges built; which said Return shall be certified and signed by such Commissioner, and the respective sums therein allowed shall be deemed and taken as so much paid for and on account of the said debts due by the Settlers respectively, and shall be credited as such; and in every case where the amount of such work is equal to the principal money due from the Settler, his Grant shall forthwith issue without any further charge or payment therefor.

VIII. And be it enacted, That if any Settler shall neglect or refuse to avail themselves of the privileges and advantages offered by this Act, the Commissioner for the place or District where they may re-

side, shall as soon as may be after the first day of October, make Return of the names of such persons to the Provincial Secretary.

IX. And be it enacted, That nothing in this Act contained shall extend or be construed to extend to authorize the laying off any Roads within the Province of a width not authorized by law.

X. And be it enacted, That this Act shall continue and be in force until the first day of April in the year of our Lord one thousand eight hundred and fifty one.

(This Act has been continued.)

REGULATIONS.

For carrying into effect the provisions of the Act 12 *Victoria, cap.* 19, *intituled "An Act to Authorize the commutation of Debts due the Crown by Settlers in certain cases for work on the Public Roads.*

I. That every Settler who may be entitled to avail himself of the privileges of the above Act, shall on or before the 15th day of June in each year, signify his desire so to do, to the Commissioner of the Parish or district in which his Lot may be situate, and shall at the same time deposit with the Commissioner the sum of one shilling on every pound of the debt for which he may be desirous of performing labour.

2. That when any Settler is indebted in a greater sum than £12, he may reduce the same to that amount by payment of the difference to the Receiver General or to the Local Deputy of the County where the Land lies.

3. That where the debt due does not exceed £5, the whole amount thereof shall be discharged by labour in one season; and where the debt exceeds £5, two years may be allowed, if the applicant require it, for performing the labour therefor.

4. That each Commissioner do forward to the Provincial Secretary on or before the 1st day of May in each year, a list of the Public Roads in his District which it will be most desirable to open or improve, and which will be most convenient for the Settlers.

5. That every Commissioner shall strictly adhere to the requirements of the above Act, and to these Regulations, and shall on or before the first day of November in each year transmit to the Provincial Secretary the Returns required by Sections 7 and 8 of the above Act.

By His Excellency's Command.

Secretary's Office, 29th October, 1849.

REPORT

To the N. B. Society for the encouragement of Agriculture, &c.

The Committee appointed on the 8th of January last to Report upon the most practical and effective modes of disseminating useful information in connection with the objects of the Society, beg to present the following Report:—

1. They do not consider that a Periodical Journal can be undertaken by the Society at present.

Such a Journal must be very miscellaneous, and often desultory, and it is considered more advisable, in the mean time, to publish such Reports, Prize Essays and Tracts as may be more immediately applicable to our own particular times and circumstances.

They recommend a large edition of the forthcoming Report, and a republication in part of the former one.

2. They recommend the publication at an early period of an Elementary work on the principles of Agriculture, written in an easy and attractive manner, and suitable for reading in the Common Schools of this Province.

3. Your Committee express their strong conviction of the necessity of an Agricultural element in the Public Education of the Province, and hope that measures may soon be taken to introduce agricultural reading by degrees into our Schools, so as to elucidate and enforce the principles of that art by which the greater proportion of the inhabitants of this Province must gain their livelihood.

4. They consider the publication of a larger Manual of the principles, practice and economy of Farming as suited to this Province to be a proper object for the Society to undertake. Such a work was strongly recommended in the Report of last year, and is still to be considered desirable.

Its adaptation for Schools will be a matter for further consideration.

5. This Committee would particularly recommend that the Society should give its fullest influence towards the establishment of Farmer's Clubs and Book Societies throughout the Province.

The young men of the Country are already familiarized with the machinery of such associations, and in almost every settlement there are Societies of various kinds;—we desire that farmers should now combine for the discussion and improvement of their own art and calling: Union, Association, and discussion—these are the well un-

derstood methods of promoting great objects, and securing for them that prominence in the public eye which their friends desire.

We have no hesitation in expressing our belief that if such organized associations had been in existence among our Farmers heretofore, a far larger share of public encouragement would now be given towards Agriculture,—which is and ever must be deemed to be the most important branch of human industry.

It may be said that the County Agricultural Societies are intended to secure this object; so they do—but only in part; they operate chiefly by premiums for the best crops, stock or manufactures: they ask for results, and reward them accordingly; we desire that intelligent farmers should now give part of their time to the discussion of *methods*, and trying conclusions.

If these Societies had from the beginning required and published accounts of the means whereby the prize Crop or Stock was produced, together with a distinct statement of the profit or loss by the same, we would now be in a much more likely way to produce what is required by the Province

At present there is an annual deficiency of about £300,000 worth of Agricultural produce, and we ought never to rest satisfied until this balance has been wiped off. Let the farmers combine to secure the Home Market to themselves at all events.

Of course it is obvious that any of the existing Agricultural Societies may incorporate the principle of Farmers Clubs into their constitutions, and we trust they will do so; but we further hope that *in every settlement*, such associations may soon be established and maintained.

In order to facilitate the proceedings of those who are inclined to move in this matter, we annex herewith a scheme of Bye-Laws, and heads of subjects for discussion, which we suggest should be extensively disseminated along with the Reports of this Society;—with these ready prepared, there need be no difficulty in organizing at once in any given locality.

It would also be desirable that the officers of this Society and the officers of County Agricultural Societies should in the course of the ensuing summer endeavour to explain and establish such Clubs in their respective localities.

It is considered desirable that there should be a regular record of the conclusions arrived at at each meeting of the Club, and that these should be published in the nearest paper or forwarded to this Society for publication when all the subjects sketched out in Our "Hints"

have been discussed and the results declared, these results must become the *Creed* of our Farmers for the future.

It is high time that answers were had on these subjects. If we are Farmers let us farm in earnest,—if the country *can* support the population, (by increased skill) without the importation of our own staples from abroad, let us know it, and let the world know it too.

The Agricultural capabilities of New England, of Canada and of Scotland have all been called in question, but when the answer was made by *competent* persons it has always been satisfactory.

It is for the Farmers of New Brunswick to show whether they, or the climate, or the soil are unfit for the practice of a remunerative Agriculture.

6. This Committee would advert to the census about to be had in the course of this year, and they trust that we may thereby get a better idea of our Agricultural statistics than we have hitherto had. It is very important that we should have this information to serve as a basis for future action and improvement.

7. A synopsis of the information contained in the Reports of the County Agricultural Societies for 1850 would also be desirable and might be made and published by this Society.

8. We recommend that 1500 Copies of the Tract on Farm Management be circulated with the Journals of the Legislature—that 1000 —or say 50 copies each be sent to the County Agricultural Societies —that 4000 or say 10 copies be sent to each of the Parish Schools. The last might be addressed to Clerks of the Peace and by them given to the School Masters who shall be desired to destribute them among the Schools—that 1000 copies of the French edition be put into the hands of the R. C. clergymen who shall be invited to recommend and disseminate the same among their parishioners.

Respectfully submitted,

N. PARKER,
J. ROBB. } *Committee.*

2nd April, 1851.

BYE LAWS

OF THE

————FARMERS' CLUB AND BOOK SOCIETY.

*Instituted——day of————*1851.

1. The Society shall consist of such members as shall have subscribed these rules and paid the sum of———per annum to the Treasurer.

II. The Society shall annually elect a Chairman who shall conduct the business of the meeting in a grave and orderly manner, and allow no vague or rambling discussion, or the introduction of Religion, or party politics: and likewise a Secretary who shall also be Librarian and Treasurer.

III. The Society shall meet at———on the—day of each month, at—o'clock P. M., for the reading or discussion of matters connected with Agriculture.

IV. At the close of each meeting, the Chairman shall sum up the results of the discussion of the evening, and the Secretary shall make a record thereof for future inspection or publication.

V. A list of subjects shall be made up at the beginning of each year, from which every member shall select one, on which, in his rotation, he shall be prepared to read a paper or open a discussion.

VI. The funds of the Society shall be applied to defray the contingent expenses and to the purchase of works on Agriculture or Horticulture.

VII. The books of the Society shall be given out and returned at the monthly meetings, and there shall be a penalty of——for neglecting so to return them at the proper time.

VIII. Visitors may be introduced by the sanction of the Chairman.

IX. There shall be an *annual meeting* and dinner.

X. The Bye-laws shall not be altered except by consent of three fourths of all the members of the Club.

☞ *For Heads of Subjects for discussion in Farmers' Clubs, see Page* 126, *&c.*

REPORT ON WOOLEN MANUFACTORIES.

To the New Brunswick Society for the encouragement of Agriculture, Home Manufactures and Commerce, throughout the Province.

The Committee appointed at the last Annual Meeting of your Society, to enquire and report relative to the establishment of a Woolen Factory, in any suitable place in this Province—the amount of capital required for such erection—the expence of carrying on the establishment in an efficient manner, &c., &c., beg respectfully to Report, that they have given attention to the subject, and submit the following suggestions for the consideration of the Society :—

Your Committee have found the investigation of the matters submitted to them a difficult task, compared with what it would have been, could they have procured such statistical Reports as are constantly published in the United States of the Manufacturing establishments, and operations of that Country. Were our public Libraries, at least supplied with these publications, it would probably tend to attract attention toward the establishment of similar operations in this Country, and afford a vast amount of useful information to persons disposed to engage in such undertakings.

In the absence of these sources of information your Committee have availed themselves of such other means, as were within their reach, especially the opportunity afforded to one of the Committee, (Mr. McAdam) during a recent tour in the United States, of visiting a number of Woolen Factories, in the State of Maine, and of conversing with practical men connected with those Factories.

Your Committee have carefully compared the various items of information received and give the result as follows.

In the State of Maine the Woolen Factories are usually wooden Buildings about 30x40 feet, 2½ stories high with three flats; the first and second, ten feet in the clear, and the third eight feet in the clear. The Machinery driven by water power.

Experience has shown the Manufacturers in the State of Maine that they could not compete with British Manufacturers in the finer articles of woolen cloths, but that they could do so with profit in all descriptions worth from three to five shillings per yard, of the single width, that their own Manufacture of articles at these prices, was vastly superior to the British articles, at the same price, and found a ready market, from the fact that in England the best of material is

used for the finer cloths and the refuse only for lower priced. Your Committee would remark that the priced cloths referred to, (from *three* to *five* shillings per yard,) constitutes a very great proportion of the clothing required in this Province, immense quantities of it being imported both from England and the United States.

Cost of Building for Machinery,	£200
Driving Machinery and Belting,	200
Two condensed Carding Machines,	400
Spinning and Weaving Apparatus,	450
Dye House and out Buildings,	100
Total cost of Buildings and Machinery,	£1350
Workmen's wages for six months, £624	
Cost of Wool at 1s. 6d. per pound, 1170	
Cost of Oil, 65	
Cost of Dyeing, 390	
Total cost of Material and Labour, £2249	
Sufficient to produce 100 yards per day for six months, say, 15,600 yards worth at 4s. £3120	
Leaving a net profit of £871	

There is a quantity of waste material, usually manufactured into a coarse description of sattinet, which is found sufficient to meet the cost of out door attendance, and some other incidental expenses not here enumerated. In the foregoing estimates, no allowance is made for repairs of Buildings and Machinery, Insurances &c., which would form a charge on the net profits.

Your Committee have taken their estimates from erections, cost of Materials, Labour &c., in the State of Maine, as not being likely to differ materially, with similar expenses and articles in this Provinc.

With regard to the demand, or market for the Manufactured article, your Committee suggest, that our home consumption must furnish the market for the present, indeed until that demand be, to a considerable extent at least, supplied by our own productions, instead of from abroad as heretofore, no necessity exists for looking elsewhere for a market.

As respects sites for establishing factories, the only remark that seems necessary is, that the most suitable places will be wherever the greatest advantages of sufficient water power can be found, seeing that the transmission of the manufactured article to any part of the Province will be attended with but a trifling expence.

Respectfully submitted,

JAMES McADAM.
JOHN T. SMITH.

Fredericton, April 2nd, 1851.

REPORT OF COMMITTEE ON DRAINING.

According to Professor Johnston's *data* the average duration of summer in New Brunswick is 6 months and 22 days, and the average period of the growth of Crops is 3 months and 3 days.

Nevertheless we often hear it alleged that there is rather too little time in which to do the Spring and Fall work efficiently: and that a few days in the Spring and a few days more in the Fall would put all to rights.

Now there is a method by which the Farmer may to a certain degree extend the period which he has to work his land, whereby, in short, a week or two may be added to each end of the Summer—and that is *by the judicious drainage of his cultivated fields.*

There can be no doubt but that if the Farmer can afford it, the soils of this country generally would be ameliorated by a more early and complete removal of the water in the Spring and Autumn. In this way it might easily be shown that the labour required on the land would be less, while the product of the land would be greater.

But it may be said that the Farmer has no time for such works as drainage: to this we reply that it is much better economy to take time for this operation at the beginning than to risk the certain deterioration or even the entire loss of his Crops for the want of it.—There are always spare days, such as a damp day in harvest or an odd day in the Summer, or when the frost stops the ploughing in the Fall, when draining may be done to a considerable extent.

In England and in all Countries where Agriculture is in an advanced state the voice of experience is loudly in favour of complete drainage; in fact it is considered to be the foundation of all other improvements in Husbandry, and we cannot overlook the necessity of introducing it here to a much greater extent than heretofore. True it is that the soils of England are on the whole, heavier than ours, the climate more moist and the Summers more cool, but in all cases of land springs or deep springs, or even in clay soils devoid of subterranean springs, or of a light shallow soil resting upon a pan, or hard sub-soil, a good system of drainage will add vastly to the security and the profits of agriculture. If our seasons be short there is so much the more reason for our taking advantage of all the aids which art can give. We cannot affect the climate of the whole region in which we live, but, practically, we can

improve the climate at the roots of our growing crops by the removal of superfluous water, and this serves our purpose sufficiently. *A day in Summer saved is a day in Summer gained.*

In order to appreciate the importance of drainage we shall consider first, the influence of water on the plant, and then its influence upon the soil.

All plants require water: They inhale a certain quantity of watery vapor from the atmosphere by the pores of their leaves, but the greater part of that which they require enters in a liquid form by the spongy extremities of their Roots: the spongy rootlets of our usual Crops will, if allowed, go down from two to four feet in search of water.

This water contains their food. It flows continually upwards through the plant; the watery particles pass off by the leaves, and the nourishing matters which had been dissolved in the water are built up and formed into the various parts and products of the plant.

Now as plants cannot move about like animals to seek "for fresh fields and pastures new," but must take what they find in the field or pasture where they were born, and where they must remain permanently at anchor for life, it is obvious that this water ought to flow slowly through an open soil towards their roots, and be at the same time moderately charged with such materials as are capable of nourishing the plant.

These materials are partly derived from the air, partly from the earthy elements of the soil itself, and partly from the animal and vegetable substances decaying in the soil—that is—from what the farmer calls *manure.*

If the water runs off too rapidly, an insufficient supply of food will enter the plant, and if there should be too much water, not only will the plant be forced to operate upon more water to get the same amount of food from it, but the soil available for food will be diminished in extent, and the very food itself will be deteriorated in quality.

Before manure can become wholesome food for plants, it must decay to a certain extent and become soluble in water; but decay or fermentation cannot go on effectually unless air be present as well as water: if the soil should be full of water, of course, the air cannot penetrate to the decaying materials, and they become sour or acid substances which are not the natural or proper food of growing crops. These will therefore languish and give place to sorrel and moss and other weeds, which are intended by Providence to consume and flourish upon such crude materials. The vigor of these latter overcomes the cultivated species which gradually disappear. Hence wet lands are appropriately termed *Sour Lands.*

In a naturally open and well drained soil the rain water passes freely downwards, bringing air with it and continully offering supplies of fresh food for the plants from the soil and the atmosphere.

But, besides air and moisture, growing plants require a certain degree of heat to start them and give them their most favourable developement. We can force any plant, as is well known, by artificial heat, and although it would be impossible to force a whole field by artificial heat, we may do so effectually by allowing the natural heat of the sun to produce its fullest effect.

Stones and earth heat more readily than water, and, growing plants, whose roots are in a well drained soil will grow more rapidly and work more efficiently. A temperature of 80° or 90° F. suits our grain Crops best, but in wet lands their roots must remain in a temperature of 50° or 60° only: and spring water is never so warm as the rain water of summer.

But besides, great portion of the suns rays go, not towards heating either the water or the soil, but rather towards the formation of vapor from the stagnant water, which rises upwards into the atmosphere. Evaporation, therefore, positively causes cold, and if any one doubts it, let him wet his own face with cold water and look out of the window for proof—or let him go out and observe where the frost first strikes his Crops, or where the mist lingers longest in the Fall.

Wet lands are therefore very appropriately termed *cold lands.*

Again—when water freezes, it enlarges about one ninth in bulk, and a soil full of frozen water will heave and swell and rise upwards, because there is least resistance to its upward movement than to its expansion in any other direction: but repeated heavings and crumblings will also bring up and expose the roots of young plants to the suns rays, which soon destroys—or as it is called, *winter kills* them.

As to the soil, it is obvious from what has been already said, that dry or porous soils, must be warm and early soils, and that soils through which summer rain water and air are gradually filtering will be better than those where stagnant water prevents the proper decomposition of the manure, and by continuous evaporation chills both the surface and the sub-soil.

Wet soils are not elastic: the air condensed on pressure does not cause them to spring up again after the foot of an animal has trod upon them, their track remains indented in the soil, and soon a poachy hollow appears.

Clay lands become sticky and hold the plough and the cattle as they pass over it—and wet lands are very appropriately termed *heavy lands.* Such lands, whether moist, or dry and baked must keep the water at

the surface and the air too,—conditions which are unfavorable for vegetation—they never can become *mellow*: but if they are properly drained, they crack and crumble up, yet still retain the food of plants, that is, the manure—much better than the hungry soils of sand or gravel.

In well drained lands the plough passes more easily, and raises a deeper furrow slice, the harrows move more smoothly and all the operations on the soil are executed with less labour and less strain of the cattle and implements.

On the whole then, it is sufficiently obvious that the Farmer can get sooner on to well-drained lands to plough and sow them in the spring—that all the operations of tillage can be performed more smoothly and thoroughly—that the crops can seek their food over a greater extent of available soil—that they will grow more healthily and more rapidly during the summer—and that there will be a better chance for ploughing and other field-work in the autumn; in short—that time for preparing the land for the crops, and time for the growth of the crops themselves, may be gained by a well-considered system of drainage.

We shall now inquire into the sources of the water which is found in the soil, and which it is the object of the farmer to get rid of by draining.

All the water of rivers, lakes, springs and subterranean channels comes from the sky, into which it had passed by evaporation from the surface of the sea or land sometime before.

The quantity of water which falls upon any given surface depends chiefly upon the latitude of the place or its distance from the equator. Within the tropics the greatest quantity is evaporated, and within the tropics the largest quantity is condensed.

It is estimated that the annual fall of water over the surface of this province amounts to about 40 inches:—that is—if all the water which falls in the course of a year upon any single square foot of our land was to be allowed to accumulate, at the end of a year it would form a column more than three feet high. In England, where the ground is but little frozen during the winter, most of the water which falls from the heavens sinks directly downwards, but in this country it accumulates during winter as snow, and in spring, great part of the winter's accumulation flows down over the frozen surface towards the brooks and lower levels, without soaking so much through the soil. This different state of matters must be borne in mind in trying to estimate the amount of water to be got rid of by artificial drainage.

But what comes of all the summer water?

Some of it rises upwards at once into the sky again as vapor, and another portion of it runs *over* the surface towards lower levels, the rest sinks *under* the surface, and of course, tends towards lower levels also—that is, chiefly towards the rivers which are the great *natural* drains of the country.

Of that which passes below the surface, one part is soaked up and retained in the soil, or between the arable soil and the sub-soil, where, in a very great many cases it remains in a more or less stagnant condition; another part of it sinks through the sand and gravel till it comes to a deeper bed of clay, or other impervious material, on which it rests as in a *pan*, or over which it flows as far as the slope will permit.

If the clay bed ends or *crops out* on a side hill, the water either appears as a living spring, or diffuses itself far and wide through a leachy or boggy soil.

If again the clay bed should form a sort of hollow, or bowl-shaped cavity, the water will give rise to a marsh which will overflow at certain seasons and become wholly dry at others.

If the downward flow of the water over clay or concrete gravel is interrupted by a boulder or rock, the water will come to its upper surface and give rise to a spring there.

Again—the bed of clay may end abruptly, and the water falling on sand will sink down a stage lower, till it meets another layer of clay, or a surface of rock, over which it will flow and give rise to the same effects—only at lower levels: or it may get between the edges of inclined layers of rocks—or it may enter some of their many cracks or joints, within which it will move, ever tending downwards, until these impervious beds end on a side hill, or the channel is obstructed by some obstacle—in either of which cases the water will be forced upwards by the pressure from behind, and form a permanent swamp, or spring, or pond, or lake according to the quantity of water which is thus collected. If there be no sufficient outlet in this way, the water between the rocky strata, (which are seldom or never perfectly level,) will sink to the lowest points, perhaps a thousand feet below the surface, and there form vast subterranean reservoirs —which may be tapped, if necessary, and supply what are called Artesian Wells.

Water which has passed for considerable distances over sand or clay or rock leaves behind it most of the surface impurities, while at the same time, it is kept cool by the mass of overlying materials and thus afford. at all times a grateful and refreshing supply for the uses of man and animals.

Attention to the foregoing remarks and a little judicious exploring by a spade or crowbar, together with some observations on the nature of the plants growing at the surface will enable any intelligent farmer to discriminate as to the particular sources of the water which he purposes to get rid of, and to the line or lines which he ought to select for his proposed drains.

Before proceeding to drain any particular field it is always proper to examine the soil for water plants, (moss, *negro-hair* &c.,) and to sink little pits from 3 to 5 feet deep, so as to become sure of the nature of the sub-soil: if the sub-soil is open and porous, so that water freely passes down, that is a natural drain, and there is no occasion for any artificial excavation—but very generally this is not the case, and springs not only show themselves at the surface, but the sub-soil is permanently charged with concealed and stagnant water also.

Deep ploughing in some cases will serve to break up the *pan* or retentive layer of the sub-soil, and allow rain water to sink until it reaches a porous substratum which will carry off the water; but this is a point which can only be determined by some experimental cuttings or pits in the fields themselves.

If the disadvantages of wet land have been sufficiently appreciated by the farmer, he will immediately proceed to seek for a remedy. This is to be secured by catching the water as near its source or head as possible, and then confining it in narrow channels, by which it will flow downwards out of the field, instead of spreading on the surface, or being diffused through the soil, or forming a subterranean reservoir of water in which the soil of the field rests like a sponge in a bason full of water. Such artificial channels or conduits are called drains or ditches.

Surface drains are required for the removal of such water as flows over the surface merely. *Deep* or *under drains* are for collecting such large bodies of water as are found in isolated places in connection with springs properly so called. *Sub-soil* or *Thorough draining* is had recourse to for the purpose of getting rid of such water as remains in a concealed and stagnant condition, (generally in heavy soils, or in level places), within the sub-soil, or between the mould stirred by the plough and the sub-soil.

Surface draining has been practised from the earliest times: under draining or the cutting off of springs at their sources is a more modern improvement, proposed by Mr. Elkington in the year 1764, but Mr. Smith of Deanston in the year 1831, first demonstrated the great evil of stagnant rain water in the soil unconnected with springs, and the return of water upwards from the sub-soil to the soil—and proposed

a system of drainage by means of covered drains in each furrow, which should immediately and effectually carry off that portion of the rain water which sinks through the soil. Rain water, it was shown, should always be encouraged to sink down and flow *through* but not *over* the surface of arable land. This constant movement of rain water through the soil, as he observed, is most effectually secured by deep tillage and his system of thorough draining.

The use of Elkington's system of underdraining then is to get rid of spring water principally and mainly, though, of course every drain will remove some of the surface water, and there are many soils which when underdrained become dry enough without thorough draining. The object should always be to do as much as possible by a single drain, or system of drains, as one good one properly laid down may dry a whole field.

When the wetness is connected both with spring water and stagnant rain water, especially in close soils, both kinds of drains may be required to produce the desired result. It is essential then that every farmer should come to clear conclusions as to whether the wetness of his field proceeds from one or other or from both together, and as to whether the profit on the proposed improvements will cover the necessary expenditure.

There is a great deal of vague information abroad in regard to "thorough draining" (so called) and it has been perhaps too indiscriminately recommended in this country. By attention to the foregoing remarks it will be seen whether the latter more expensive process is required or not.

The absolute necessity of the two first mentioned kinds of draining is readily admitted, but the adoption of thorough draining must be an affair of time and means. It has hardly been introduced as yet among us, and we want information as to its profit and loss derived from the experience of our own country. For the purpose of inducing farmers to test the utility of thorough draining the Directors of the St. John Agricultural Society have offered premiums to such as would undertake the experiment and report upon the results, and a drain-tile machine has been imported and set up with a view to supply the necessary material. It must be remembered, that in England tile draining is done at less than half the cost of stone draining, even when stone is on the land, and is more effective. The former costs, in England, from £3 to £6 per acre with drains 3 to 5 feet deep, and 20 to 40 feet apart: the latter from £10 to £30.

It is also well to know that the highest authorities in Great Britian in the opinion that the growth of Crops in that country is more re-

tarded by the pestilential influences of rain water and melted snow remaining within a retentive sub-soil, then from surface water or even spring water itself. There is at present no room for argument as to the value and utility of thorough draining in the abstract, but there may and will exist differences of opinion as to its being applicable in an economical point of view, to this or the other farm, or this or the other district. The fundamental difference—and it is a most important one—between England and New Brunswick is, that in the former Land is dear, and Labour cheap, while with us Land is cheap and Labour high. The indiscriminate adoption of many English practices in Agriculture here may prove both ruinous and absurd; and we are not necessarily fools because we cannot always see at once how thorough draining and high farming *will pay*.

It might be well however to consider whether we ought not to have a *Drainage Act* as well as in England and other countries. We have tried Bounties on growing wheat on New Land with but little good effect; a *Drainage Act* would operate as a bounty on the renovation of Old Land, and the adoption of an improved system of Husbandry.

We shall now suppose that the farmer has decided to drain certain fields as well as he can, and that he has determined upon the material which is to form the conduit, supposing that he is to adopt the approved system of covered drains.

In a general way, the field which is lowest should be first selected, the autumn is the best season for commencing operations, and grass land about to be broken up for Oats is the best for working upon.

Having determined before hand, whether it is the surface water or that of the sub-soil, or that of springs in the field or any two or more of these which he is to attack, he will now mark out or set off the line or lines along which the drains shall run, and perhaps make sure of the sub-soil thorough which they are to pass: the drain must then be dug and formed and levelled: and lastly the channel thus made must be properly filled up again.

Surface draining:—This phrase has been applied by some writers to Smith's system of *Thorough draining* under the supposition that the latter process served mainly to remove the rain water which falls over the surface to be drained, which, no doubt, is often the case, but at present, we merely refer to open channels made so as to favor the flow of water along the surface of the field.

Arrangements calculated to facilitate this object are in general use: the ridging or drilling of land by the plough, when the ridges or drills are made down the slope—as they ought to be—serves this end: by *gathering* again with the plough, and by deepening and rounding the

water furrows, and making side cuts towards low or wet spots by means of the plough and spade, this is still more effectually done. These water furrows, of course, all end in a ditch. The breadth of the ridges should vary with the nature of the soil, so as to have more frequent water furrows in clay soils than in light soils. Fifteen or eighteen feet is a medium breadth: in some districts however they are made of the breadth of five or six feet only, while in others they extend to a width of 24 or even 36 feet.

Sheep Pastures are sometimes drained by furrows made with the plough along the most favorable slopes, and directed towards a common drain or open ditch, by means of which the water is conveyed out of the field.

Open ditches may vary from two to six feet in deep, and three to four feet in width; and their sides should slope at an angle of 45 degrees. These ditches both large and small ought to be very frequently looked over and scoured so as to secure their efficiency.

Deep or *Under Draining:* In looking at the sloping surface of any tract of ground in which there is an oozing or bursting out of water, we may generally distinguish the line where the springs burst by the pressure of the water itself, or by the plants which naturally occur over it: and we ought to fix the line for our head-drain at or above the line which connects the greatest number of wet places: it may also be necessary in some cases to draw the water from each side towards the centre, from which point again it is to proceed straight down toward the outlet. The object should always be to cut off the water by as few channels as possible, and this can only be done effectually by digging the ditch deep enough to reach the impervious floor on which the water naturally rests: from this level it is then to be taken downwards as rapidly as possible. It is always well to remember that "*one drain well laid to suit the circumstances will often save a dozen by rule.*"

Peaty or boggy lands are generally dried by a drain which surrounds their margin and cuts off all the springs as they enter the hollow, or by a large main drain and branches aided by deep furrows and high ridges: in such cases however some extra labor may be required so as to secure a proper outfall.

In under draining for springs it is always well to know the nature of the sub-soil by one or two experimental cuttings or pits, or borings in the line of the proposed drain. It is likewise advisable that the drain should if possible always *head* the spring, and that its floor should be impervious to water: in fact, the depth of the impervious stratum will in general determine the depth of the drain itself.

The question of using a plough or a spade in ditching or trenching is in general determined by the state of the ground itself: if the subsoil be full of roots and stones, it is better to use the spade, but if it be free from these obstructions a plough will do the work quickest. Trenching with the spade may go on at any time during the open season, or at any leisure moment when no other work is going on out of doors. Clay land will cut best when it is a little wet, and so in fact will most soils. When a deep drain is filled with stones and covered in, it will be less liable to injury from frost than open drains, whose sides are very apt to crumble and choke up the water course. They may also be made much narrower than open drains, and it is better to make the open area of such drains narrow and deep, as smaller bottoms and covers will suit, and the current of water being more confined, mud and sand will be less apt to settle on the bottom.

The implements required in addition to the plough are a common spade and shovel, a long or very long and narrow spade, a pickaxe or a footpick, a crowbar, a garden line, a level and a gauge, or measuring rod with one or two cross arms.

The general course may be set off by a furrow, or by pins set into the ground, or by raising a bit of turf here and there with the spade, and its width, say 30 inches, set off by a rule and garden line.

The simple and more usual practice is to sink the drain about 3 or 4 feet; the most perfect method is to cut down 5 or 6 feet, or until the natural floor is reached.

The value of the land, and the means of the farmer will however, generally determine the question.

In a medium soil a furrow of, say, 30 inches wide, and, say, 12 inches deep may be made between the ridges and the ground then trenched with the spade. This trench should be as narrow as the men can conveniently work in. Even if the flow of water is to be considerable it need not exceed 18 inches in width at the bottom and that when the excavation is 6 feet deep. In the case of drains of considerable depth, a pipe or conduit of about 6 inches wide is made with dry flat stones for the bottom, top and sides; on these ordinary stones are to be put, keeping the larger ones underneath and the smaller ones above to a depth of about eighteen inches from the surface: the inverted sod is laid over the levelled surface of the stones, and the earth filled in as quickly as possible, leaving it slightly elevated at the surface to allow for settling.

When the attempt is not made to reach the deep seated water as above, but rather to catch the water near the surface as it stagnates or slowly filters through a close sub-soil, a furrow may be formed

with the plough as above, and then a trench cut with a narrow spade, which shall be 20 to 30 inches deep, 8 inches wide at the top and 6 inches wide at the bottom. Next, lay two large flag-stones in the bottom of the trench so that their sides shall be supported by the soil and their edges meet along the bottom: then introduce a large stone which shall wedge them steadily against the land and leave a conduit underneath; the rest of the trench may be filled up again with small stones or gravel and covered over with the inverted sod and soil.

The general rule in all cases is to dig from the lower end of the field upwards—to prove the levels—and to fill in from the upper end.

When flat stones cannot be had in quantity for the purpose, two round stones may be laid in the bottom and a flat one or another round one laid on top of them.

The above system of cutting off water along the side of the declivity just where the springs burst out, is a most important one, and in very many cases prevents the necessity of any other kind of drain.

Sub-soil or *Thorough Draining*:—We shall now make some observations upon sub-soil draining, or the removal of stagnant and concealed rain water from the soil and sub-soil by numerous and narrow parallel covered drains in each furrow or in each second furrow communicating with a lower drain which discharges the waters of the field.

The first thing is to determine the line of the main drain into which the branch drains are to enter; the course of that drain is always along the lowest side of the field wherever that may be: If there should be two or three different slopes in the field there will be required a corresponding number of main drains communicating finally with the grand outlet. If the field is very flat this main drain must be dug a few inches lower than the branch drains. Wherever the course of the main drain will allow of it, these branch drains should follow the inclination of the ground up and down and not obliquely across its surface. If the main drain runs up and down a hollow field the branch drain must then run obliquely and join the former at an acute angle; but as a general rule drains are most efficient when they run directly down the fall of the field and not across.

The depth of the branch drains depends upon the nature of the soil, and the quantity of water which lodges. In a medium or loamy soil a depth of about four feet, and intervals of about thirty-six feet are recommended; the regular distances secure uniformity of dryness. It is almost as bad to have one part of a field wet as the whole. When this kind of draining is undertaken at all, it ought to be done effectually, and it is considered to be better economy in England to

drain one half of a farm thoroughly, than to have the whole of it half drained only. Deep drains will always draw most water, and they are the best secured from injury by frost; they are the most effectual and most durable.

In large undertakings, says Thaer, it is customary to make use of a plough for the purpose of commencing the opening of a drain. Two furrow slices are thrown off by this implement, the one to the right and the other to the left, while a strip of earth about fifteen inches wide is left between the furrows.

This strip is subsequently divided with a strong plough having a double mould board. The first time the instrument passes through the soil, it is made to penetrate to the depth of about a foot, and the second time it is arranged so as to turn up the soil to at least six or eight inches lower down: the earth is immediately removed from the sides, lest it should fall back again into the ditch during the operation: the excavation is then continued with manual implements, and it is almost always better to work up hill than in a contrary direction. A common spade is first made use of which is a little narrower at the bottom than it is at the top, and subsequently another is had recourse to, the upper part of which is scarcely so wide as the lower part of the former, and its extremity not more than three inches wide. By digging successively with these two implements, and exercising a little care and skill, the drain will speedily become properly shaped: the walls must then be united, and all the loose earth which has fallen to the bottom removed thence with a curved shovel.

Such narrow openings are intended for tile or tube drains, but when stones are to be used for filling, Stephens recommends that the bottom of the main drain should be twenty-four inches wide at the top, and 9 inches or the width of a spade. The places where the side drains are to enter should be marked off, and their outlets cut to the proper depth.

The main drain is then to be filled and covered, and the side drains cut from below upwards: a small drain should likewise connect the tops of the others at the upper side of the field.

Each of the drains should be cut throughout and gauged and levelled before filling in. If stones are to be used the bottom of the branch drains should be seven inches in width: the main drains ought to be made with a pipe, and the side drains with stones alone. Mr. Smith says that a drain ten inches wide and eighteen inches deep will void the rain water from 100 acres.

The best form of a stone pipe is that of a triangle; if its base be downwards, the water will be less likely to run through, and if the

apex of the triangle be turned downwards, the drain will clear itself better, though the water may escape downwards to a certain extent.

The fall required is not very great; 1 in 300 or less will suffice.

The sides of the pipe are to be made with flat stones, and then supported with roundish pieces about the size of an egg, or not larger than three inches in any one direction: these stones are to be filled in evenly to a depth of—say eighteen inches from the bottom of the drain. The upper layer may be of clean gravel from a brook or sea beach. The stones ought to be beaten or rammed down hard and their surface levelled, after which nothing more is required than to fill in the earth and finish off as usual.

In all kinds of covered drains it is of the utmost consequence that the ends should be looked over from time to time, and accumulations of mud and sludge removed. *This ought never to be forgotten.*

We may here introduce the directions for thorough draining given by the St. John County Agricultural Society, and printed in the Appendix of their Report for 1850.—

"Directions.—The drains may be opened to the depth of twelve to eighteen inches with the plough, then sloped down to six inches wide at the bottom. As there are no draining tools here, a shovel should be ground to a point of five inches for the last shovelling. After the drain is thoroughly level and clean, in the absence of tiles, broken stones should be laid carefully in by hand, to the depth of fourteen inches, and inverted sod land on the top, and the clay or soil closely packed down. The filling in and levelling should be done with the plough. The main drain should be twelve inches wide at the bottom, and have a pipe formed, with eighteen inches of broken stones on top. Cedar or fir branches may be laid on top of the stones in the main drain.—The cost of opening and closing drains in Britain is about 7d per rod; in this County, drains have been opened at 6d. per rod.—The first ploughing may be done with a common and subsoil plough, with two common ploughs following one another, or the ground may be trenched."

Drain Tiles in many places are cheaper and more convenient than stones for the filling of drains: *Well made* stone drains are as good as tile drains, but the latter allow of a narrower trench. They consist of pipes of burnt clay of one to two inches diameter, and twelve to fifteen inches in length. They are simply laid down end for end with collars to connect them, and when the trench is filled afterwards, the water passes off by the joints or by the porous sides of the tube as steadily and effectually as it does through the loose stone drains:

It looks rather mysterious that such should be the case, but still *such is the fact*, and it can no longer be gainsayed. Their adoption with us, as already said, will be determined by their price delivered in the field, the value of the field itself, the anticipated increase of produce —the length of the Farmers purse—the price of labour, and the facilities for getting the right sort of stones instead of tiles. Each piece should be carefully joined to its neighbour and supported in its place by properly packing the soil around it again.

The subjoined table will assist in determining the cost of drain tiles in any particular locality.

		12 in.	13 in.	14 in.	15 in.	
Drains at 15 feet apart require		2904	2681	2489	2323	per acre.
" 18	"	2420	2234	2074	1936	"
" 24	"	1815	1675	1556	1452	"
" 30	"	1452	1340	1245	1162	"
" 36	"	1210	1117	1037	968	"

We also give, for the sake of comparison, a few figures of the sums paid recently in England for drainage at different depths and intervals upon strong clay land.

Depth in feet	Labor per pole	Interval in yards	Workmanship per acre.	Pipes per acre.	Cost per acre.
5	4½d.	11⅔	£1 8 4	£0 17 3	£2 5 7
4	4	11⅞	1 5 0	0 17 3	2 2 3
3½	3½	11 13/16	1 2 0	0 17 3	1 19 3
3½	3½	15	0 17 0	0 15 0	1 12 0

Something however must be added to each sum for the main drain, for collars and apparently also for the carriage of the materials to the ground.*

Wooden Drains.—When pipe tiles can be laid upon the ground at a cheap rate they are the best for sub-soil draining purposes. When stones *of the right size* abound in or near the fields which it is desired to drain, they ought to be used for the purpose, but there are circumstances perhaps where the price of the tiles, or the trouble or breaking and hauling a sufficient quantity of small sized stones may be so great that wood in some form may be considered more available. If wood was more durable, it undoubtedly would be the best material for drains in this country.

Hacmatac, Hemlock, Cedar, Pine, or even Spruce wood possesses durability sufficient to entitle them to be tried as a material for drains. The decay of wood goes on fastest at the surface of the ground where any moisture act upon it, and cause it soon to moulder and decay. The decay which is always going on among the vegetable matters

* Ph. Pusey, M. P., in Journ. of R. Ag. Society of England No. XXVI. p. 403.

of the soil communicates itself to the wood, and causes its more rapid decomposition likewise, but in the sub-soil where there is hardly any organic matter and little or no air, wood will last a very long item.

The best form in which wood can be applied is undoubtedly that of tube or pipe made with inch boards, and perforated with one-half or three-quarter inch auger holes to admit the water more freely.

For under-draining, the water way would require to be of considerable size, but for sub-soil draining a water way of two inches would be quite sufficient—that of the main drain being four inches.

It would also be well that the pieces of the pipe or conduit should be nailed or pinned together, though they might do without it where economy was the chief consideration; notching or sawing the upper edge of the side pieces would be done quicker than boring holes with an auger, and would probably serve the same purpose.

In the fourteenth volume of the Prize Essays of the Highland and Agricultural Society of Scotland it is stated that Larch tube drains presenting a square of four inches outside, and a clear waterway of two inches have been found to be a good material for thorough draining especially in mossy soils, but tiles in most places can now be had cheaper than wood: in fact, tiles of one inch bore and a foot in length are to be had for ten or fifteen shillings a thousand.

A well made tube of Hacmatac or Hemlock would cost but little here, and if the stuff was sawed out of the required dimensions at a mill, any farmer could put them together and lay them down. Inch or inch and a quarter board three or four inches wide, like fencing stuff, would do very well.

A complete tube nailed together is the *best*, no doubt—but the cheapest form of it is where—there is no bottom—the sides being nearly supported by pegs driven into the clay and the top laid on without being nailed down. If thorough draining is to be undertaken it is however better economy to use the complete tube.

In the Albany Cultivator for May 1850, there is an account of draining done with wooden pipes. In that case Hemlock scantling two inches by four, and set on its narrowest edge was used for the sides, and boards for the top and bottom taking care to break joints with the boards and scantling so as to give greater stiffness and security. The scantling for the widest drains was placed six to eight inches apart, and for narrower three or four.

To thorough drain an acre of land with Spruce tubes at—say—forty feet apart would require fully one thousand feet of tube. This might be worth about—say—20s. or 30s. at the mill, exclusive of the

nails and labour—we will suppose that no great outlay of money is required for these.

A cheaper but less efficient kind of wooden tube for underdraining springy land may be made with cedar rails, or poles of Hemlock, Haematac, Pine or Fir. There should be twelve or eighteen feet long, and six to ten inches in thickness. These are to be laid one on each side of the drain, and another as a cover-packing in all around with small stones, bog stuff or brushwood to within sixteen or eighteen inches of the surface, then laying the inverted sod over this, treading firmly down and filling up with soil as usual. Brushwood or straw drains are not to be recommended.

By way of encouragement to farmers who are thinking of adopting some of the foregoing methods of improving their land, we shall recapitulate the results of drainage on the crops.

" On drained land," says Mr. Stephens, "the straw of wheat crops shoots up steadily from a vigorous braird, strong, long, and at the same time so stiff as not to be easily lodged with wind or rain. The grain is plump, large, bright coloured and thin skinned. The crop ripens uniformly, is bulky and prolific, more quickly won for harvest, more easily threshed, winnowed and cleaned, and produces fewer small and light grains. The straw also make better fodder for live stock. Clover grows rank, long, and juicy, and the flowers large and of a bright colour. The Hay wans easily and is heavy for its bulk. Pasture grass stools out in every direction, covering the ground with a thick sward, and produces fat and milk of the finest quality. Turnips become large, plump as if fully grown, juicy, and with a smooth and oily skin. Potatoes push out long and strong stems, with enlarged tubers, having skins easily peeled off, and their substance mealy when boiled. Live stock of every description thrive, show good temper, are easily fattened and of fine quality. Land is less occupied with weeds, the increased luxuriance of all the crops checking their growth. Summer fallow is more easily cleaned, and much less work is required to put the land in proper order for the manure and seed ; and all sorts of manures incorporate more quickly and thoroughly with the soil."

Respectfully submitted by

J. ROBB, M. D.,
R. JARDINE.

Fredericton, April 12th, 1851.

REPORT ON BARNS.

When your committee take into account the multifarious purposes to which the Barns of this country are applied—that they are the Barn proper, the stable, the Cow-house, the Sheep-shed, the poultry house, and not unfrequently the Pig-stye, they scarcely think it possible to construct a single building so as to answer all these purposes in a satisfactory manner, and they think a division of these might be introduced with considerable benefit.

The Barns we have seen in the country are constructed pretty much alike—a wooden framework covered over with single boards, put on closely at first perhaps, but from exposure to the weather shrinking so as to leave large crevices at every joint—open to every blast, and rendering the inside of the house rather the coldest side of the two.

Hence, we presume, arises the practice (in other respects so objectionable) of keeping the cattle out of doors for the whole length of the day in winter, as, by moving about they can keep themselves more comfortable than when tied up in a cold barn. Exercise in the open air is necessary to the health of animals, especially young ones, and a run of an hour or so each day in the yard or fields when the weather is moderate would be beneficial, but we most decidedly object to the common practice of keeping cattle standing out in the snow for the whole length of the day and in all sorts of weather.

As hay and straw are rather benefited by a free circulation of air around them, this in their case is no objection, but it is very different with the cattle and horses; they require warmth, their bodies must be kept at a temperature much above that of the atmosphere in winter, and if this is not done by comfortable housing, it must be done by an extra supply of food. Prof. Johnston in his report on the Agricultural capabilities of the Province, speaking on this subject says:—"It is acknowledged at present by chemical physiologists that warmth is equivalent to a certain portion of food—that an animal which is exposed to more cold will eat more—and that one that is better housed and warmer kept will eat less to keep an animal comfortable therefore is to save food, and this alone ought to be a sufficient inducement when a scarcity of winter food is complained of."

Your committee do not approve of the usual way of keeping cattle &c., in one end of the Barn and under the hay mow, the breath of

the animals together with the ammonia and other noxious gases exhaled from the dung and urine rising up among the hay cannot fail to have an injurious effect, and though hunger may compel the cattle to eat it they do not do it with the same relish, nor does it give the same benefit as clean sweet hay.

Connected with Barn economy is the proper management of manures,—and here your committee think the practice of the New-Brunswick farmers particularly objectionable. The dung is thrown from some convenient hole cut in the boarding of the Barn, that from the cattle in one place and that from the horses in another, it is thus frozen in detail, and about as intimately mixed with snow as barrelled herrings are mixed with salt; of course fermentation is out of the question, and when the rain of spring washes out the snow, it carries along with it every particle of soluble matter, leaving a mass of woody fibre as little suited to the food or growth of plants as a corresponding quantity of saw-dust; fermentation and decomposition must take place before it can be available as a manure, and by the time this is effected it is too late in the season to apply it to a crop, and by another season perhaps one half of its virtues are dissipated.

We do not know that we have exhausted all the objections that might be made to the present system of Barn management, but we have noticed what we consider the most prominent ones. It is easier however to point out an evil than to suggest a remedy, and if your committee fail in this respect it is only a common case and they will have the consolation of having done the best they could.

They consider the barns of the country well enough adapted for holding hay or grain on the straw, (although they think the latter would be better kept in stacks) but they would confine their uses to those purposes. They think the houses for the live stock should be distinct, though for the convenience of feeding they should be as near the Barn as possible. A shed raised against the end or side of the Barn with a door of communication between them makes a very good Cow-house or stable; it should have a head or feeding passage in front, and a groove in the rear of the animals for the dung and urine, the floor should be laid quite close so as to prevent the escape of the urine and the access of cold air, and the walls should be shingled or double-boarded, ventilators for the escape of the heated air will be necessary, one for every ten feet or so of the length of the building; they should open directly over the heads of the cattle and run out where the roof of the shed joins the end of the barn.

Where the situation is favourable, a vault or cellar under the stable or Cow-house is perhaps the most convenient place for keeping the

manure; it should be provided with an opening to allow the gases evolved by the fermenting mass to escape into the open air, or what is still better, a little gypsum or dry bog-earth thrown on the heap from time to time will fix and retain the ammonia; without some such precaution as this, the gases would find their way through the floor of the stable and injure the eyes and lungs of the cattle.

On level ground where a cellar would be inconvenient, any kind of shed that will keep out the rain and snow will answer well enough; with a little painstaking however, manure can be kept very fairly in the open air—at least during winter. If it is put up in a compact form kept smooth on the surface and the snow carefully shovelled off before a new layer is added it will undergo all the fermentation that is necessary to prepare it for the land, and it will settle down to a solid mass almost impervious to rain, and consequently lose little from washing or leaching in the spring.

Whether manure is kept in sheds, in cellars, or out of doors, it is of great importance that the different kinds should be thoroughly mixed; horse manure kept by itself will ferment so strongly as to render it comparatively useless in a short time, while that of cattle will scarcely ferment at all at the temperature of our winters; by mixing them together as they are made, the proper degree of fermentation will be excited.

In England and Scotland where the cattle get a large allowance of succulent food, a liquid manure tank is an indispensable adjunct of a farm steading—here where the cattle are fed for the most part or wholly on hay, the urine will seldom be in excess—that is, it will be readily absorbed by the solid portion of the manure; where the cellar or dungstead has a porous or gravelly bottom, however it will be proper to lay it with clay, so as to rectain any liquid matter that may escape from the heap.

Respectfully submitted,

ROBERT GRAY.
WM. DAYTON.

April 2, 1851.

REPORT OF COMMITTEE ON THE CULTURE AND MANAGEMENT OF FLAX.

Many years ago the culture and weaving of flax for family use was general among farmers in New Brunswick: of late, however, the introduction of cheap cottons, and the want of economical habits among the Agricultural portion of the community have caused that culture, in great part, to disappear. It still prevails, notwithstanding, in some districts to a small extent, and more particularly among the French in Westmoreland County: French linen is almost always to be had for sale there, and forty or fifty barrels of seed are annually collected by the country dealers and exported to Boston, where it brings a fair return.

There are many situations in this country where perhaps it is hardly worth while to grow flax, but in the settlements remote from towns, we consider it desirable that flax should be grown on almost every farm. Summer clothing, shirting, bed and table linen, towelling, ticking and bagging may all be made from it: and such articles of home manufacture are almost invariably far better in quality than those for which cash is paid in shops: besides, no substance that can be used is better for the fattening of Stock than the seed of flax, and the very best effects attend the use of a small proportion of it made into meal or jelly, and given with their daily food.

We are aware that a good deal of care and trouble are required for the management of a crop of flax: but carefulness and industry ought to be the characteristics of farmers above all men: it is chiefly the want of these very qualities which hinders the prosperity of this fine country, and renders it dependant upon others for food and clothing.

It will probably be of little avail to urge the farmer *at present* to give greater attention to his farm: the *log-crop* is his favourite one for the moment, although it is easy to foresee that this same crop will, as heretofore, prove the ruin of many.

The seed which we are now sowing will fall on soil of different qualities: in some cases it will perish at once, and in some it will soon be choked by weeds—but in others again, it will produce an abundant return: we must bide our time: no temporary rise of price or excitement in the lumber market will allow us ever again to overlook the fact that *the permanent health and prosperity of this country must be based upon its Agriculture and Home Manufactures.*

The want of Flax Mills in this Province, it may be said, tends to retard the more general culture of the flax crop, but mills cannot be profitably undertaken unless the supply for them be in sufficient quantity and of proper quality. There ought to be at least one Flax Mill in every County to which the farmer should bring the flax straw as soon as it is dried, and where the retting, breaking, scutching and heckling might be done on the most approved principles—but alas! we fear there is not one in the country: true, a *bonus* was granted last Session of Assembly in one case, but we understand that it has not since been applied for: the farmers should agree among themselves each to raise so much, or else the mill will prove a bad investment for the proprietor: mean while, hand labour, the spinning wheel and the loom may suffice, as they do in many parts of New England where they contribute, not a little, to that feeling of independence of which the New England Farmers boast so freely. If flax were more generally cultivated, we would not hear of our girls—"the fair daughters of New Brunswick"—being exported or transported to other countries in order that their labour may be employed to enrich strangers. Flax is precisely that crop which all ought to cultivate, seeing that it of all others, affords the material for a Home Manufacture, in which every member of the family may be engaged—and encourages the most laudable virtues of domestic industry and economy.

Impressed with these views, we have prepared an account of the details of the flax culture and management, with a view to their being generally disseminated throughout the country. There are many, of course, who are already well acquainted with the subject, but we write not for them;—we write for those who are honestly desirous of living on the produce of their farms, and yet have not access to all the information which they consider necessary; we believe that there are many such in the Province, and that by them the subjoined hints on the subject of flax culture will be thankfully received.

Soil.—Flax may be grown on a great variety of soils: any soil that is fit for the cultivation of wheat, or turnips, or other green crops will do for it: light loams, or, in fact, medium land that is *tolerably deep and dry* will answer perfectly well: on very rich or wet intervale land it is apt to lodge or become mildewed; on too light or rocky soils it is injured by drought: and very stiff soils are unsuitable altogether. The soil should be clean, mellow and in good heart.

Flax comes in best as a first crop after breaking up old grass or clover lea instead of oats, or if the land be poor, it may be manured on the sward so as to give a crop of oats, barley, or rye, and then a

crop of flax in the following year; It is also well introduced after a hoed crop, which has left the land both rich and clean: common manure should not be applied immediately preceding the crop. It is to be considered as a corn crop, and not a green crop in the rotation.

The preparation of land for flax is fully more important than the quality of the land itself: it should in every case be well ploughed and thoroughly harrowed so as to extirpate all weeds and couch grass: the field should be made up into narrow (say—6 feet) ridges and deeply water-furrowed after sowing.

Plaster, or lime, salt, wood or peat ashes, bone or rape dust, singly or in combination, are the best dressing for flax land at the time of sowing.

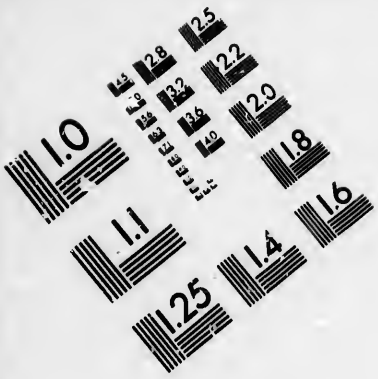
Guano or liquid manure of any kind, if it can be had, may be advantageously applied as a top dressing to the young plants.

Flax has been called an exhaustive crop, but it need not be so, and in fact is not more so than any grain crop: it leaves the land in good enough order either for grain or potatoes.

It is cultivated for its seed and for its fibre: now its seed may and ought to be returned under the form of manure from the animals fed upon it, and its fibre can be shown to be derived from materials absorbed from the atmosphere and not from the soil, so that the abstraction of the fibre is after all no loss *to the land*: in the stem it is true there were, besides the fibre, about two per cent of mineral matters derived from the soil; these are often regarded as so much lost, but they will be found in the water in which the plant has been rotted, and, if the steep water and the powdery refuse of the brakes and scutchers be added to the farmer's compost heap, almost every particle taken from the soil by the growing crop will be returned again: and thus by good management, the flax crop may be made less exhaustive to the land than almost any other crop whatever—more particularly if pulled before the seeds are formed. These remarks will be rendered more evident by referring to the following *data*:—A crop of fine flax, consisting of 40 cwt. of stalks, 20 bushels of seed, and 9 cwt of the seed-cases and leaves contains about 244 lbs. of mineral matters: of these there is found

In the seed,			33 lbs.
" bolls or seed-capsules,			64
" Straw 147 lbs., of which in the	Steepwater,	117	
	Wood,	21	
	Fibre and Tow,	9	244

Of this quantity 118 lbs. is actually returned to the soil in the seed, the husks and the wood: another quantity of 117 lbs. *may be* re-



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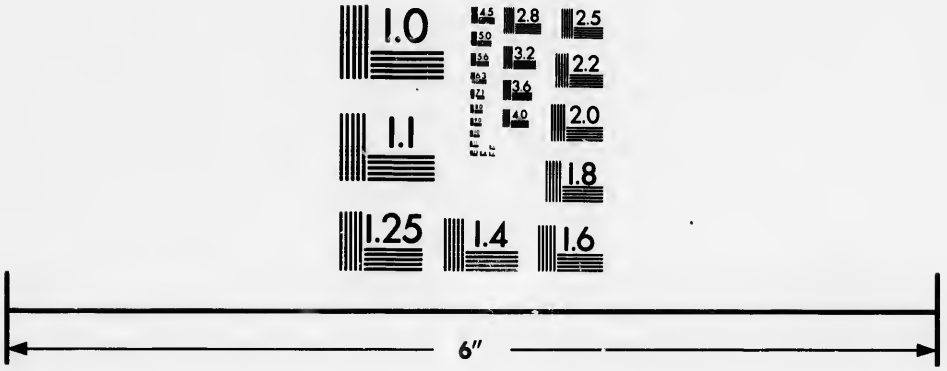

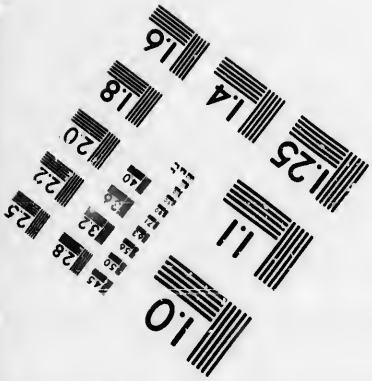

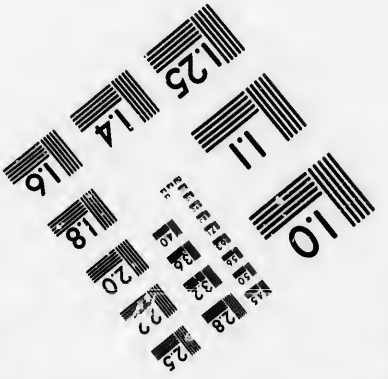

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tossed in the steep water, and only 9 lbs. is necessarily lost to the farm (per acre) in the fibre.

Sir R. O'Donnell who is one of the largest cultivators of flax in Ireland states as the result of many years experience that when grown in its regular rotation, flax is so far from being exhaustive, that it tends greatly to improve the soil and the character of the other crops in the rotation. It is above all most valuable for laying down land after wheat or oats, as the process of pulling the flax by loosening the earth around the roots improves greatly the quality of the grass crop. In some parts of England also it has become a proverb, that good wheat crops always follow flax.

Seed :—Owing to the great destruction of the seed of this plant in the process of water rotting in Ireland, a fresh supply of it has to be annually imported: very often too the plant is pulled before the seed is quite ripe, so that the expense of growing flax is thus rendered greater than necessary: Every farmer in this community however, might save seed enough for his own uses, all that it necessay being to let the plant ripen and dry properly, after which the seed can easily be separated by a flail or by a rippling-comp: in Ireland the prejudices of the farmers have hitherto prevented them from saving their flax seed in quantity at all commensurate with the demand, but in Russia and Belgium the seed is always saved and produces a very considerable annual revenue to the country.

When the principal object is the saving of the seed the plant can be sown in drills with advantage at the rate of 1½ to 2½ bushels per acre: When it is sown for the fibre 3 bushels are recommended: when both are desired 2 bushels are the right proportion: It is generally sown broadcast.

When the plant is sown thick a finer and longer fibre is produced, when it is sown thin, again, it gives off many suckers, each bearing a boll well loaded with seed.

The seed should be of a bright brownish cast, oily to the touch and should sink readily in water: the heaviest is the best: it is of importance that flax seed should be as clean as possible.

As the seeds are small, they should be covered with a very little mould (½ inch) using a rake or very light harrow, or a brush harrow and roller. The sooner the seed can be got in so as to save the young plant from frost the better it will be. It is not particularly tender.

Weeding :—This should be done when the young plants are three or four inches high. It is generally performed by women and children, but as they have to kneel or sit on the plant, the operation should be performed with the face towards the wind, so that it may help to

raise the plant afterwards. It is of great importance that the operation of weeding flax grounds should be faithfully performed; it only requires to be done once. During the subsequent growth of the plant it may be necessary to sustain the plant by small ropes or light poles supported at proper intervals.

Pulling:—The proper time for pulling flax *for the white*, that is, when it is not intended for seed is when about two thirds of the stalk is observed to turn yellow—the seed bolls to be fully formed—*the seed itself of a dark green colour and firm* and the leaves beginning to fall. It ought never to be pulled except when perfectly dry.

It should be caught close below the bolls, and pulled up by the roots by small handfuls at a time—the longer stalks being kept apart from the short ones: they may afterwards be tied up in small sheaves, say about eight inches in diameter, rather loosely bound at the seed end and stooked, placing the top of the stalk upon the ground and the root upwards.

If required for seed, it should be allowed to stand until the bolls have acquired a brown colour and become firm, by which time most of the leaves will have fallen.

Flax which is pulled too early never acquires its proper strength while that which has become over ripe has always much more of the coarser fibre (tow) than is desirable

In Belgium it is usual to thrash out the seed before stacking the flax and to steep the stalks in spring. In this country the practice would seem to be to dew rot the flax at once in the field, then to remove it to the barn, and reserve the dressing and spinning till the March following.

Rippling.—The bundles are taken to a shed where the seeds and leaves are removed by drawing the stalks through an iron comb or rake with from 6 to 10 long triangular teeth fixed in a plank so that their bases nearly touch each other, and having a cloth spread underneath to catch the bolls or seed vessels as they fall. A flail or beetle may serve the same purpose for common qualities, while, with flax for fine cambrics, the bolls must either be beaten off with a mallet or cut off with a knife. In beating it is necessary to untie the sheaves. The seed pods, each of which contains 10 seeds, are next put away to dry and winnowed at leisure. In rippling, and in all the processes of flax management, care must be taken not to bruise or injure the dry stalks.

Flax may be rippled in the field immediately after pulling and steeped or rotted at once: after the rippling process the sheaves are therefore to be again made up in assorted lengths. The Irish pea-

santry imagined that the removal of the seed before steeping injured the quality of the lint, but this is absurd, and it ought never to be neglected.

The seeds which come out most readily from the bolls are the best for sowing again: that which is less ripe is pressed for the oil, and the worst is fed off ot once at the cattle. The refuse of the crushed seeds (*oil cake*) is also admirably suited for fattening stock of all kinds, and helps greatly to *eke* out the stock of hay.

Retting:—Up to this point all agree in the treatment of the flax crop, but after this there are various ways of managing so as to get the fibre ready for market.

Lint is the pure woody fibre of the inner bark of the Flax plant, and our object now is to separate it from the *boon* or woody heart of the stem, and to cleanse it from the vegetable glue which binds all the parts of the plant together. This is rather a complex process, and upon its perfection does the value of the product chiefly depend.

It involves, first, a fermentation or *retting* of the stalks so as to decompose and dissolve out the gluey portion, and, second, a mechanical separation of the fibre from the woody pith. The old way was to spread out the flax stems evenly and thinly upon clean sward immediately after pulling and to leave them them for some weeks exposed to the influence of rain, dew and air; this was called *Dew retting* or rotting. The process was stopt when the stems on being rubbed showed that the *boon* and the bark or *harl* could be readily pulled part. By this method the stems are often discoloured by the weeds underneath and it is not so much practised as formerly. One advantage attending it is, that it acts as a top dressing for the grass. *Pit-retting*, or rotting in pits is similar to the process used in the preparation of hemp: it consists in building up the sheaves in a somewhat sloping fashion, evenly but loosely, in pits or pools sunk in the ground,—about 8 feet wide by 3 feet deep—covering them with clean boards or straw or rushes, and keeping them under water by means of stones or weights laid over all. The steep water should be used as top dressing or added to the compost heaps. This process has its disadvantages also: the nature of the soil and of the water more or less discolours the fibre so that a subsequent bleaching becomes necessary: clean and clear soft water is essentially necessary and it should be introduced a few days previously and added to from time to time so as to be kept full. The greatest care is necessary to determine the exact degree of the fermentation, as the time for this is greatly determined by the season of the year and the

state of the weather. Frequent examination of the stalks is necessary towards the end, for a day or two too many will affect the fibre of the harl itself, and too short a time of steeping or watering renders the separation of the wood extremely difficult and produces a large proportion of *tow* or refuse.

When fermentation has proceeded to a certain extent the surface of the water becomes covered with bubbles of gas; when these have disappeared, and the flax seems to have settled on the bottom, it may then be concluded that the operation of watering is nearly finished: the average period may be from a week to ten days. When some of the stems are broken and the *boon* readily slips from the *harl* it is time to remove the flax from the pond. This trial should be made every day after fermentation subsides.

As soon as the sheaves are lifted out they must be carefully laid on their edge to drip or drain, and then *grassed* or spread out in thin layers as before, to get washed and bleached: after ten or twelve days, and when they are quite dry and brittle they are again tied up in sheaves and stacked or put under cover. In some places they are not spread out, but merely loosened so as to admit the air thoroughly on all sides; after which they are stowed away for subsequent operations.

Stream retting:—In order to avoid the impurities incidental to ponds, the practice of steeping in gentle streams has been advantageously substituted for pit rotting: in this case the process is slower, but the flax is less discoloured: the difficulty is to get a proper current, neither, too strong nor too slight, and, of course, it is impossible by this method to save the steep water for top dressing or for the compost heap.

Probably *Mixed retting* is after all the best for us: in this case the plant is first steeped in water the same day or the day after it is pulled, and the retting is finished by exposure for two or three days on the grass: it should be as carefully lifted as it was laid down.

Schenck system:—The Irish Flax Society have lately reported very highly in favour of a system of steeping proposed by a M. Schenck, and against a method of preparing flax without steeping, which had been proposed by a Mr. Donlan. By Schenck's plan the steeping is effected by placing the sheaves in wooden boxes filled with water of the temperature of 70° or 80° F. So that the process is completed in eighty or ninety hours, and yields a finer quality and greater quantity of lint. The fixtures required for this process are somewhat expensive, and it would seem to require separate works for the purpose, to which the farmers in a certain district should bring their crop for

manufacture. It remains to be seen how far the process is applicable here, and whether it is advisable to connect a steeping apparatus with the Flax Mill.

Claussen process:—Another plan which has recently attracted considerable attention is that of a M. Claussen. This gentleman proposes to take the straw after rippling—to boil it first in a very weak lye of soda, and then in an equally weak acid water, by which means gases would be formed within the stalk of the plant at once, and thus in a few seconds, destroy the cohesion of the wood and the bark: another process of chemical cleansing and bleaching performed in an equally short space of time leaves the flax fibre ready for scutching, and furthermore fits it for spinning up with cotton, wool or silk into fabrics of great beauty and utility.

This is certainly a very desirable result as far as the inferior qualities of flax are concerned, but the value of the fine fibre by the old operation would always be greater than that of M. Claussen's *Flax-cotton*: while the new plan therefore does not effect the manufacture of fine linens or cambrics it would seem to open up a prospect of an enlarged demand for flax-fibre to replace a part of the cotton—enough of which can hardly now be had to supply the enormous demand for it—a demand reaching to about 1000 tons per day in England alone.

At present we are only disposed to recommend the growth of Flax for the sake of its use in the family and for the sake of its seeds for feeding stock: when the deficiency of bread stuffs is made up, it may be time enough to grow it on a larger scale for the use of the manufacturers—and when we have a market for this crop elsewhere than at home, there need be no doubt of our soil and climate being well adapted for its growth,—provided the farmer does his part in the matter.

Societies might very well offer prizes for the revival of the Flax culture in New Brunswick and for Reports on the actual management of the crop. In Holland, Belgium and in the North of Ireland the comfortable circumstances of the small farmer is said to be mainly, attributable to the culture of this invaluable clothing plant.

Breaking:—When flax is grown on a large scale the subsequent treatment of the fibre is effected by machinery, but under other circumstances it may proceed on the farmer's premises.

The first step is to break or bruise the stems by an instrument called a *break* or *brake*. It consists of four thin boards about 15 inches long and 3 inches broad, fixed horizontally on a frame at about 3 inches distance from each other, and three similar boards of the same dimensions are fixed in a frame with a handle which can

play in the interstices of the lower one by means of a joint at the end, like the blades of a pocket-knife in their handle.

The dried flax is taken in the left hand and laid across the lower blades, while the upper ones are forcibly pressed down upon it.—This breaks the stalks in four places, and by a repetition of the process the whole handful is soon sufficiently bruised.

Another way is to beat the flax for some time on a smooth stone by means of a *beetle* or hand-mallet, but in the large way the whole process is done better and more rapidly by the pressure of revolving rollers.

Scutching or Swingling:—By the last process the wood or boon is rendered so brittle as to be readily separated from the fibre by the process now to be described.

Scutching by hand is effected by taking a portion of the flax in the left hand and laying it into a notch cut horizontally into an upright board solidly fixed on a block or stand: the ends which hang down are then repeatedly struck obliquely by a very thin board, somewhat like a broad-axe in form, and furnished with a short handle: the handful is then turned end for end and the process repeated until the woody fibre or *boon* is scutched or separated from the *harl*. The short, coarse and torn fibres which separate with the boon are called *tow*, and is largely used in the manufacture of sacking, &c.

This is a simple but tedious operation and mills are to be considered desirable substitutes for the hand labour; they likewise produce a finer article.

Scutching is good winter work for the farmer here, and it is precisely because flax is capable of affording so much winter work for the farmer's family, that we consider it advisable to grow it much more than has hitherto been the case with us.

Heckling:—After the lint has been wholly freed from the boon it must next be sorted into lengths for spinning and conversion into *yarn*. This is effected in the process of *heckling*. In the great Mills of England the stalk is first cut or divided into three lengths of about 10 or 12 inches each: The root end is used for the coarser threads—the middle for fine—and the top length is used only for the finest qualities of thread.

The *heckle* is a square of metal pierced with a very great number of holes in which are inserted steel teeth extremely sharp, and placed so that the one behind stands in the space between the two in front of it. The *heckler* draws the flax repeatedly across the teeth first of a coarse heckle and then of a fine one until the filaments are finally cleaned, split, separated into their finest fibrils and

arranged in parallel order: and the short fibres which are unfit for spinning, together with any dust or dirt, are at the same time completely removed.

Formerly the operation of spinning of flax into yarn and the weaving of the yarn into cloth was the occupation of all thrifty housewives not only here but in the Mother Country: these operations however as well as the one last mentioned are now almost wholly effected by Machinery: This no doubt is best for England, but it would be well for us nevertheless, in this Province, that more attention than of late should be given by the husbandmen to the culture—and by their wise-hearted wives and daughters to the spinning and weaving of flax on their own farms—for their own use and wearing.

We shall conclude what we have to say on this subject by quoting some remarks of the late lamented Mr. Colman in his Report upon the Agriculture of Berkshire, Mass.—

"In looking over my returns "says he" I was struck with the remark of a man of much practical wisdom, and one of the best farmers in the Commonwealth: he says *that a farmer should produce upon his farm all those supplies which the farm can be made to yield.* In his case this done within doors and without: for there the spinning wheel has not forgotten to turn round, nor the shuttle to speed its flight. In this cottage whose neat and beautiful arrangements cannot be surpassed, the clothing, the bedding, and the carpeting were all the product of their own fields and flocks. I shall not soon forget the hearty and unpretending hospitality of these admirable dwellings? I have slept many a time under a silken canopy, and trodden many a carpet as soft as the pride of Eastern luxury could make it; but never with any thing like the sentiment of honest pride and independence with which I saw here, the floors spread with carpets made from their own flocks, which for fineness and beauty the foot of a princess need not disdain, and on a cold night slept on woolen sheets from their own looms as soft as the Shawls of Cashmere, and wiped my face with towels spun with their own hands from their own flax, of a whiteness as transparent and delicate as the driven snow. In such beautiful examples of domestic management, it is delightful to see with how limited means the best comforts and luxuries of life may be purchased. Nor were these instances few: the County of Berkshire abounds with examples of this domestic comfort and independence. Much to be regretted will be the change, which has already invaded many parts of the State, when under the pretence of superior cheapness these household fabrics shall give place to the more showy but flimsy products of foreign industry:

and the healthy exercise of domestic labor and household cares shall be deemed degrading in our wives and daughters: and exchanged for the idleness and frivolities of pride and luxury.

I agree entirely in the sentiment above expressed, that every farmer should as far as possible, supply the wants of his family from his own farm. He should supply himself with bread, meat, vegetables, milk, butter, cheese and clothing as far as his farm can be made to do it. He can always do it at a less expense than he can purchase these supplies. The labor requisite for this purpose may often be given at times when it would not be otherwise occupied: and by hands for which otherwise, there would be no employment. The sentiment of self respect and self dependence, inspired by such a course, is a great gain. The satisfaction of eating bread raised by one's own labor is not small; and various and important moral influences, which I shall not discuss, render it altogether desirable; though in some cases the same amount of labor consumed in their production, if applied in other ways, would purchase a larger amount of the same supplies. Though the supply of our great wants from our own farms might seem, however, in some cases to be a *pecuniary loss*, it is always in the end a *moral gain*, with which the pecuniary loss is not to be put in competition."

All which is respectfully submitted by

J. ROBB,
R. JARDINE.

Fredericton, April 2, 1851.

INTERIM REPORT ON A PROVINCIAL SHOW AND FAIR FOR 1852.

SAINT JOHN, April 4th, 1851.

To the Secretary of the Provincial Society.

DEAR SIR—As one of the Committee appointed to report on a plan for a Provincial Fair and Exhibition, I beg to submit for the consideration of the Committee the result of my cogitations on the subject.

I think that the Fair should be held annually,—but to commence in 1852,—or that at least one year's notice would require to be given.

The time should be Tuesday, Wednesday and Thursday of the third week in October.

The places should be—first year at Fredericton, for the River and western Counties—second year at Miramichi, for the northern Counties,—and third year at Dorchester for the eastern Counties, and so to continue, with such alteration of localities as experience might shew to be advantageous.

The amount expended in Premiums should be at least £250 for each Fair The towns or Societies of the District where the Fair is held should be called on and required to provide the necessary show-grounds and erections, with the exception of a large tent to be permanently provided for by the Society. The admission fee to the Show grounds, (1s. 3d.,) and the entrance fee paid by competitors, (5s.,) should go to the funds of the Society.

While the exhibitors might be expected to be chiefly from the district where the Fair was held, it would be open to competitors from the whole Province.

Competition should be invited in the following Departments, viz:

Agriculture, Manufactures, and products of Domestic industry.

AGRICULTURE—Horses for Agricultural purposes and for "all work."

Premiums to be offered for Stallions, for Mares foaled or in foal, and for two and three year old colts and fillies.

CATTLE.

Premiums to be offered for Bulls of any age, for Bulls calved after the 1st of January 1850, for cows of any age, and for heifers calved after 1st January 1850, to be pure bred of the following breeds—Durham, Hereford, Devon and Ayrshire. Premiums also

for native or cross-bred Cows of any age—but not for Bulls in this class, and premiums for working and fat oxen and cows—the breed or cross to be specified by the exhibitors and the mode of feeding described.

Premiums for Swine and for Sheep—exhibitors to specify the breed.

Premiums for grain and vegetables.

Premiums for cheese and butter.

Premiums for beef and pork in barrels, to have been raised by the Exhibitor if a farmer, or produced in the Province if exhibited by a packer or Merchant.

In Horticulture—Premiums for vegetables, flowers and seeds—fruits and also honey.

MANUFACTURES.

All articles to be exhibited by the Manufacturers,—and prices at which they are for sale to be affixed.

Premiums for the largest and best assortment of agricultural implements in wood, and the same in iron.

And separate premiums for Horse-powers, Fanners, Threshing-Mills, Cheese-Presses, Churns, Ploughs, Harrows, Cultivators, Dung-forks, Hay-forks, Hay-rakes, Scythe-sneaths.

Premiums for the best assortment of Pottery,—the best assortment of bricks.

Premiums for the best assortment of stoves,—the best assortment of edge tools.

Premiums for Soap and Candles, Hats and Caps, Woolen Cloth, Rope and Twines, Brooms and Pails, Matches, Harness, Carts, Waggons, Carriages and Sleighs, Cut Nails, Lasts, &c., &c., Cabinet Work.

DOMESTIC MANUFACTURES.

Premiums for Lace, for Rug Work, for Caps, Quilts, Blankets, Sheets, Linen, Woolen Yarn, woolen and mixed Cloth, Socks and and Mitts, for the neatest shirt, do. Trowsers.

FISHERIES.

Best Pickled Shad, Herring, Codfish, Pollock, Hake, Haddock, Salmon &c.,

Best Smoked Fish of any kind,

Best preserved Fish or Shell Fish of any kind.

As I have but little acquaintance with the latter branch, I leave the details to be filled up.

The above is an outline of what I conceive should be the leading features of a Provincial Fair.

I may here remark, in regard to the classification of the premiums for cattle, that the above is now the plan adopted, not only in England and Scotland, but in the U. States and Canada. I have before me the transactions of the N. Y. State Agricultural Society for nine years. At first they allowed mixed and native breeds to compete, but finding that premiums given in this direction did no good and effected no permanent improvement, premiums as above specified have been given for the last seven years.

As the Premium List for the above Fair should be issued this present Summer, it will be necessary to apply to the Government or the Legislature, for a Grant or promise of a Grant for the purpose of defraying premiums and expenses. Unless the premiums are liberal, so as to stimulate and reward the industrious, the Fair will do little good, and would probably be a failure.

If otherwise, it might be the means of exciting such a spirit and effecting such an improvement as would repay the cost to the country ten times over.

I shall be ready to go into the details on my first visit to Fredericton.

I am, Your's truly

R. JARDINE.

Dr. Robb.

NOTE:—*A Bill was introduced in accordance with the above suggestion, and after having been read a second time was left over in consequence of the hurry attending the close of the Session, until the next sitting of the Legislature.*

J. R.

CONTRIBUTIONS FOR 1850.

FREDERICTON.

Allen, J. C.	£0	5	0
Anderson, George		5	0
Babbitt, Sam.		5	0
Baillie, Hon. Thos.		5	0
Barberie, A. *M. P. P.*		5	0
Barker, Spafford		5	0
Beckwith, F. W.		5	0
Beek, Henry S.		5	0
Beek, J. S.		5	0
Black, Hon. W.		5	0
Bliss, T. Wetmore		5	0
Botsford, Hon. A. E.		10	0
Botsford, George		10	0
Botsford, W. H.		5	0
Brannen, Geo. F.		7	6
Brown, James *M. P. P.*		5	0
Carter, Hon. Judge		5	0
Chandler, Hon. E. B.		5	0
Chandler, E. B. Jr.		5	0
Chestnut, Robt.		5	0
Chipman, Chief Justice	2	0	0
Coburn, A. T.		5	0
Davidson, Jas.		5	0
Drury, C.		5	0
Earle, John *M. P. P.*		5	0
Earle, S. Z. *M. P. P.*		5	0
Fisher, H. Jr.		5	0
Foshay, W.		5	0
Fredericton, Lord Bishop of	1	0	0
Friend, A		5	0
Fulton, R.		5	0
Gaynor, Jos.		5	0
Gilbert, Thos. *M. P. P.*		5	0
Gregor, W.		5	0
Gregory, J.		5	0
Hansard, H. J.	1	0	0
Harding, J. G.		5	0
Harrison, Hon. C.	1	0	0
Hatheway, C. L.		5	0
Hatheway, G. L.		10	0
Hayne, R.		5	0
Hazen, Hon. R.	1	0	0
Head, His Excellency Sir E. W., Bart.	5	0	0
Hill, Hon. G. S.		5	0
Hill, Thomas		5	0
Hogg, James	£0	10	0
Jardine, R.	1	0	0
Johnson, J. J.		5	0
Johnston, Hugh		5	0
Kerr, D. S.	1	0	0
Ketchum, George		5	0
Ketchum, Rev. W. Q.		5	0
Kirlin, Patrick		5	0
Maclaggan, Alex.		5	0
MacCausland, A.		5	0
Macdonald, G.		5	0
Macpherson, C.		5	0
Morgan, W.		5	0
Odell, George *M. D.*		5	0
Odell, James		5	0
Odell, W. H.		10	0
Parker, hon. N. donation	2	10	0
subscription		10	0
Partelow, Hon. J. R.	1	0	0
Payne, William		5	0
Phair, A. S.		5	0
Phair, B. Jr.		5	0
Phillips, J. R.		10	0
Rankin, hon. A. *M.P.P.*	1	0	0
Richards, D.		5	0
Robb, J. *M. D.*	1	0	0
Roberts, George		5	0
Robinson, H. B.		5	0
Scovil, Samuel		5	0
Shore, Hon. George		5	0
Simmons, T. L.		5	0
Simpson, J.	1	0	0
Smith, J. W.		5	0
Smith, J. T.		5	0
Stewart & Neill		5	0
Street, Hon. Judge		5	0
Street, Hon. J. A. *M.P.P.*		10	0
Taylor, James *M. P. P.*		5	0
Thorn, H. J.		5	0
Tibbets, James		5	0
Troughton, George		5	0
Turner, Jos. S.		5	0
Vail, J. C.		5	0
Wark, David *M. P. P.*		5	0
Watts, William Senr.		5	0
Weldon, hon. J. W. *MPP*	1	0	0
Wilkinson, John	1	0	0
Wilmot, hon. L. A. *M.P.P.*	10	0	0

Wilmot, R. D. *M. P. P.*		5	0
Wolhaupter, Ben.		5	0
Woodward, I.		5	0
Total	£11	7	6

SAINT JOHN.

County Agr. Society,	£20	0	0

WESTMORLAND.

Keillor, Thomas	£0	5	0
Mills, A. T.		5	0
Palmer, Gideon		5	0
Robb, John		5	0
Sayer, M. G.		5	0
Theal, Charles		5	0
Turner, J. C.		5	0
Weldon, Andrew		5	0
Wilmot, J. M.		5	0
	£2	5	0

ALBERT.

Per Col. Clark, (*names not received*)	£3	10	0

CARLETON.

Bedell, John *J. P.*	£0	5	0
Connell, C. H.		5	0
County Agr. Society,	5	0	0
Dibblee, H. E.		5	0
Dibblee, J. D., *J. P.*		5	0
English Richard *M. P. P.*	5	0	
Fisher, L. P.		5	0
Friend, A		5	0
Garden, H. M.		5	0
Jacob, E. J.		5	0
Jacob, J. R. *M. D.*		5	0
Ketchum, Ralph		5	0
Perley, Charles *J. P.*	1	0	0
Phillips, James A. *J. P.*		5	0
Robertson, James		5	0
Truesdale, E. M.		5	0
Tupper, James R.		5	0
Upton, Asa *J. P.*		5	0
Winslow, J. F. W.	1	0	0
Total	£11	0	0

KENT.

Layton, J.	£0	5	0

KINGS.

Upham Agr. Society,	£3	0	0

RESTIGOUCHE.

Stewart, Dugald	£0	5	0
Per P. Stewart, Esq., (*names not received*)	6	0	0
	£6	5	0

GLOUCESTER.

Baldwin, H. W.	£0	5	0
Bishop, S. L.		5	0
Brown, Robert		5	0
Blackhall, Jas. S.		5	0
Deacon, W.		5	0
Desbrisay, Theoph.		5	0
Dumaresq, P. J. R.		5	0
Ferguson, Francis *J. P.*	1	0	0
Ferguson, John		5	0
Gordon, Robt. *M. D.*		10	0
Johnstone, Wm.		5	0
Macdonell, Geo. Rev.		5	0
Miller, John *J. P.*		5	0
Mitchell, J. M.		5	0
Napier, Wm. *J. P.*		5	0
Packard, B.		5	0
Read, Joseph *M. P. P.*		5	0
Street, J. A. *M. P. P.*		5	0
Windsor, Joseph		5	0
Wolhaupter, Chas. J.		5	0
Wolhaupter, James M.		5	0
Total	£6	5	0

NORTHUMBERLAND.

Allan, J. C.		5	0
Davidson, A. A.		5	0
Henderson, Rev. W.		5	0
Marks, Hugh		5	0
Porter, John		5	0
Street, J. A. *M. P. P.*		10	0
Vanstone, Thomas		5	0
Williston, Edward M. P. P.		5	0
Per Mr. McDougall of Chatham	2	10	0
Total	£4	15	0

NOTE :—In addition to the above we have also most gratefully to acknowledge subscriptions to the amount of £10 5s. from Charlotte County; but as they arrived too late for the audit of 1850, they do not appear in the Treasurers accounts for that year, and are carried towards the subscriptions of the year 1851.

ERRATA.

Page 98—	line	17	from top for	"gant" read "grant"
99	"	25	"	"Dying" read "Dyeing"
101	"	28	"	insert "that" before "our"
103	"	9	"	erase "for"
118	"	1	" bottom for	"Johnson" read "Johnston"
123	"	9	" "	"Sooiety" read "Society"
136	"	20	" top before	"less" insert "not"
168	"	2	" bottom for	"afford" read "affords"
170	"	1	" " before	"in" insert "coincide"
179	"	5	top for	"there" read "these"
"	"	22	" "	"wans" read "wons"
184	"	17	" "	"exported" read "exported"

N. B. It is particularly requested that those who use the Canadian Tract on Farm management will substitute "8 lbs." for "3 lbs." of butter, in the recipe for the mixture for smearing sheep.

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NEW BRUNSWICK SOCIETY,

FOR THE ENCOURAGEMENT OF

Agriculture, Home Manufactures & Commerce,

Throughout the Province.

SIR EDMUND W. HEAD, BART., PATRON.

The Annual Meeting of this Society, at the County Court House, in Fredericton, was held on the evening of the 7th day of January, 1852. The President took his seat, and, as the Chairman of the Executive Committee, submitted the Annual Report of the Society's doings for the information of the public, of which the following is a copy :—

Gentlemen,—It becomes my duty to Report the Society's doings during the past year, since the last Anniversary held in January, and to offer such observations as occur to me in regard to the Society's operations.

It has been a principal object with the Society, and it has been thought particularly incumbent upon it in the early stages of its proceedings, to disseminate as widely as it was able *sound information* connected with the important objects which it is its aim to advance ; with this view, Committees were named to investigate and prepare reports to be submitted to the Society on some of the principal subdivisions of the three great interests which the Society is established to advance, and others allied therewith. These have been published under the supervision of the Society, and widely circulated. The first part of the Journal of our proceedings contains the early reports so submitted, and the course which the Society has thus taken, has, I believe, met with very general approbation. Since the period of the last Annual Meeting several other Reports on very important subjects have been published. One of them is on Draining ; an operation on the effectual performance of which much of the success of Agriculture depends. It is only within a very late period that the full importance of this subject has begun to be understood, even in England, whose Agriculture we have been apt to suppose must have been long since much more perfect than it is now believed to be.

The Report enters very fully into the whole subject, pointing out the various modes adopted in regard to different localities, and the rationale of the benefits thereby communicated to the soil in the nourishment of plants.

A Report has also been made on the improvement of Barns and Stables, both as regards the protection and well-being of the cattle, and the preservation and management of manure, with such practical advice as seemed to be loudly called for.

The subject of another Report is the culture of Flax, which, although it has not yet attracted much attention in this Province, the Society are induced to think may hereafter be profitably raised and applied. The promotion of our internal prosperity will be very sensibly advanced should these anticipations be realized, and the Society is disposed to watch with great interest any attempts which may be made in this direction. This Report enters into many interesting details in regard to the management and preparation for manufacturing purposes of the article in question. A Report has been also presented on the subject of Immigration, and one on the means of encouraging new settlers. These Reports set forth the difficulties which beset the emigrant on his first arrival, and those peculiar to the formation of settlements in remote districts, with practical suggestions for their removal or mitigation, with a view to the improvement of the condition of those hardy pioneers of civilization. Another Report discusses the best mode of disseminating information in connection with the objects of the Society; and among various suggestions in regard to Agriculture, strongly recommends the establishment of Farmers' Clubs. Annexed thereto is a plan for the formation of such institutions, containing the rules proper for their guidance. There is also an interim Report in connection with the subject of a Provincial Show and Fair, which will be more particularly adverted to by the Corresponding Secretary hereafter. These various Reports contain much matters likely to be found valuable to the country, and have been printed in the second part of the Journal of the Society's proceedings. Of this publication four thousand copies have been printed, of which fifteen hundred have been distributed, and also seven thousand copies of the Canadian Tract for the economical improvement of worn out soils, the great value of which was generally acknowledged.

A Petition to the Legislature was also adopted in order to obtain a modification of the terms of obtaining the Provincial Grant, in aid of the funds of the Society, which object was successfully accomplished.

During the sitting of the Legislature a large and influential meeting was held, at which the object and exertions of the Society appeared to be very fully appreciated, and much valuable information afforded.

The receipts and expenditure during the past year are fully detailed in the Treasurer's account, which will be submitted.

Premiums were offered by the Society for Essays on the improvement and encouragement of Orchards:—

On the improvement of the Woollen Manufactories of this Province:—

On the best ways of using Turnips and other root crops in the feeding of Stock.

And a Premium also for the best managed Farm of not less than a prescribed size, as indicated by answers to a series of questions; and another for the second best. A Premium was also offered for the first 10 barrels of Beef or Pork of first or second quality, packed according to the directions of the Society.

The time for presenting the Essays has been enlarged until the 31st January, instant.

The encouragement thus held out will, it is hoped, prove a stimulus to exertion, and furnish valuable materials for the records of the Society.

The Society have also voted a Premium of £15 to Mr. John Flett for his Carding Machines, Dyeing Works, and Cloth Dressing Establishments, recommended under the correspondence which I will read, (he here read the correspondence,) and, which I may add, the Society has felt great satisfaction in encouraging.

Public Meetings in aid of this Society were held during the past summer at Dalhousie, Bathurst, Northumberland, Carleton, Saint Andrews, the Cork and Harvey Settlements, the proceedings in the Northern Counties and in Carleton have appeared in detail in the public prints. At all these places, except Carleton, the objects of the Society were enforced by Mr. Kerr, to whose exertions the public are much indebted, and his zeal and ability every where acknowledged. In the Harvey Settlement and elsewhere measures were adopted for the formation of three Farmers' Clubs.

By all these varied means, the value to be derived from the attention of intelligent and scientific men being directed towards aiding the development of the great sources of a nation's wealth and economic self-reliance, has been brought home to the inhabitants of the Province in all directions—the duty which the Society has taken on itself, and the efforts in which it is engaged, have been generally known. It has everywhere met with encouragement by the expression of opinions at public meetings, and in many cases by contributions to its funds; and we trust the approbation thus manifested is but the precursor of a permanent and effective organization in the several Counties, to co-operate in the common end in view,—the elevation of our common country. Much encouragement has been derived from the success attending the Exhibition recently held at

St. John. To this object our Society lent its ready aid by devoting a portion of its funds—the sum of thirty pounds—to premiums for objects within the scope of its constitution, which were duly awarded. Its Corresponding Secretary and one of its Vice Presidents attended that Exhibition as a Committee of the Society, and made a very valuable and detailed Report on the subject, which was published under the direction of the Mechanics' Institute at Saint John. To many, if not to all, this Exhibition must have conveyed new ideas, both of the agricultural resources of the Province—and the extent to which the mechanic skill of its inhabitants had attained, and led them to entertain better hopes for its future.

The subject of a Provincial Show and Fair, which had been from the first an object of great interest with the Society, at length assumed a shape, at a public meeting held in October last, a number of resolutions having been passed with the view of taking immediate steps to hold a Fair in Fredericton. The whole of this subject will be so fully explained, in published Reports of the proceedings of that meeting, and the Corresponding Secretary's Report, and the schedule which the Society directed to be laid before this meeting, that I need not further advert to it here. It is to be hoped that it may be the means of fostering a spirit of generous rivalry, the effects of which will be felt in the improvement of the soil and all our native productions, and that it will be only the first of a series of Exhibitions of the like kind to be held in the different parts of the Province.

In conclusion, I will observe that there are everywhere appearing signs of steady advance of the great interests connected with the cultivation of the soil, among which is to be noticed, with much satisfaction, the attention of men of education, and trained for other pursuits, is now beginning to be directed to the tilling of land, not merely as a recreation, but as a deliberately chosen profession. This is calculated to lead to improved plans of husbandry, and no less in the eyes of the farmer himself, to give dignity to the art on which he entirely relies.

I will now call upon the Treasurer to lay his account before the meeting, and subsequently on the Corresponding Secretary for his Reports on the subject of the Provincial Fair.

The Resolutions of the last meeting were then adverted to, which are as follows:—

Moved by Judge Street, seconded by D. S. Kerr, Esquire, and passed unanimously,

1st. *Resolved*, That this Society immediately proceed with preparatory and efficient steps for having a general Exhibition of the Industry of the whole Province, under the form of a general Show and Fair in the year 1852, agreeably to the 8th article of the Con-

stitution of this Society, and 5, 6, and 7 sections of the Act of Incorporation, 3 Vict., Cap. 62, Resolution of March, 1850, and Report of 4th April, 1851. (See Society's Journal, p. 12, 89, 194, and Province Laws of 1850, p. 193.)

Moved by J. A. Beckwith, Esq., seconded by W. Carman, Esq., and passed unanimously,

2nd. *Resolved*, That such Exhibition is intended to embrace all kinds of Agricultural, Mechanical, and Domestic productions, and Works of Art and Science, and every variety of Industrial product worthy of observation, manufactured and unmanufactured, within the resources of this Province, together with an account of the quantity available for supply, and the prices thereof, with a view to a sale or ultimate market for such articles.

Moved by Hon. Judge Parker, seconded by Col. Hayne, and passed unanimously,

3d. *Resolved*, That His Excellency Sir Edmund W. Head, the distinguished Patron of this Society, be waited on with a copy of the proceedings of this meeting, and respectfully solicited to advise and co-operate with this Society in the design of having such Exhibition as complete and extensively beneficial in all parts of the Province as possible.

Moved by W. Watts, seconded by Judge Wilmot, and passed unanimously,

4th. *Resolved*, That the General Committee of this Society, by its Constitution composing the Legislative Councillors and Members of the House of Assembly, in their respective Counties which they may represent, and in their private capacity, are especially requested to take a leading part and give their individual aid in promoting the object in their Counties respectively.

Moved by the Attorney General, seconded by C. Macpherson, Esq., and passed unanimously,

5th. *Resolved*, That the respective County Agricultural Societies throughout New Brunswick, the St. John Mechanics' Institute, as also the several Mechanics' Institutes in different parts of the Province, Manufacturing Companies, and others who feel an interest in the welfare and advancement of this Province, are hereby invited to join with this Society in promoting the object in view.

Moved by J. Gregory, Esq., seconded by D. S. Kerr, Esq., and passed unanimously,

6th. *Resolved*, That the Corresponding Secretary be requested to prepare a schedule of articles suitable for Exhibition, on the plan of the Industrial Exhibition of Great Britain, and submit the same to the Annual Meeting of the Society in January next.

Moved by J. C. Allen, Mayor, seconded by J. Taylor, Esq., and passed unanimously,

7th. *Resolved*, That the Corresponding Secretary, John A. Beckwith, Esq., Hon. Judge Wilmot, Hon. W. H. Odell, Colonel Maclauchlan, D. S. Kerr, Esq., James Taylor, Esq., and John Grant, Esq., be a Special Committee to select the necessary Show grounds and kind of building for the Exhibition, and report on the same, with plans and estimates of the probable expense thereof, at the Annual Meeting in January next.

Moved by Dr. Robb, seconded by G. Roberts, Esq., and passed unanimously,

8th. *Resolved*, That in addition to the Office Bearers and Committees of this Society, local Committees be appointed in the different Counties of the Province to attend to the interests of the said Exhibition.

Moved by T. R. Barker, seconded by the Attorney General, and passed unanimously,

9th. *Resolved*, That the Corresponding Secretary forthwith correspond with the Vice Presidents of this Society, County Agricultural Societies, the several Mechanics' Institutes, Local Committees, Manufacturing Establishments, and individuals in different parts of the Province, to obtain their suggestions and active co-operation in respect to the said Exhibition.

Moved by D. S. Kerr, seconded by Judge Street, and passed unanimously,

10th. *Resolved*, That subscription lists be opened by the Local Committees in different parts of the Province to raise a fund for the special purpose of aiding to transmit the articles to the Exhibition where it may be required, and for the general purposes of such Exhibition.

Moved by R. Fulton, seconded by J. A. Beckwith, and passed unanimously,

11th. *Resolved*, That the respective Editors of Newspapers in different parts of the Province, hereby are respectfully requested to give publicity to the foregoing Resolutions, for the information of the public at large.

R. FULTON, *Secretary*.

To which Resolutions the following was moved to be added, and unanimously adopted:—

12th. *Resolved*, That in addition to the Resolutions passed on the 15th October last, the Ladies of New Brunswick are most respectfully requested to exercise their influence and lend their aid, separately and collectively, in co-operating with the Society, and with the local Committees thereof, towards promoting the object of the said Exhibition.

The corresponding Secretary, from the Committee, according to the 3d Resolution of 16th October last, appointed to wait on His Excellency Sir Edmund W. Head, reported that he had attended to that duty, and that His Excellency was pleased to say that he would render every assistance in his power towards forwarding the purposes of the Exhibition.

The Corresponding Secretary, as a Committee to prepare a schedule, according to the 6th Resolution of October last, submitted his Report, which is as follows:—

PROVINCIAL SHOW AND FAIR FOR 1852.

In pursuance of a Resolution passed at a General Meeting of the Society, held on the 15th of October last, I beg to Report herewith a Schedule or classified list of such objects as may fairly be said to be of our natural resources, or to come within the scope of our Provincial art and industry.

I have ventured to depart somewhat from the classifications hitherto adopted, but hope that the new arrangement will be considered both simple and natural; should it prove to be not quite complete, it will be easy to refer any of the omitted articles to their proper place in the list. The object of preparing and disseminating such a Schedule is to direct the attention of all those who are interested in the proposed undertaking to the specific items which are desired for the Exhibition; and, as it is only by *an united and hearty effort on the part of the whole community* that we can hope to get together a worthy collection of our Provincial resources and products, an earnest appeal is made to all parties who may see this list, to select *at once* therefrom such articles as it is within their power to procure or prepare, or others not included in the list—notify the Secretary thereof—and proceed to get them ready as soon as possible, in a manner and style befitting the occasion.

It is hoped that the funds to be placed at the disposal of the Society will enable it to defray a portion of the charges of procuring and transmitting certain of the articles for Exhibition, and also to prepare and issue a liberal Premium List. The Exhibition at Saint John last year has already given us increased confidence in the resources and industrial activity of the Province, and I venture to predict a steady and rapid improvement therein from such periodical festivals dedicated to the cause of Art, Industry and Commerce.

Respectfully submitted.

J. ROBB, *Corresponding Secretary.*

FREDERICTON, *January 5th*, 18

OUTLINE OF CLASSIFICATION.

CLASS I.—MINERAL KINGDOM.

Raw Materials,
Manufactures, in Metal,
Ditto, Miscellaneous.

CLASS II.—VEGETABLE KINGDOM.

Raw Materials, from Forest, Farm or Garden,
Manufactures, chiefly of Wood,
Ditto ,, Grain, Fibre, &c.

CLASS III.—ANIMAL KINGDOM.

Animals,
Manufactured Products.

CLASS IV.—FINE ARTS, &c.

Objects of.

CLASS I.—MINERAL KINGDOM.—SECTION A.—RAW MATERIALS.

Metallic.—Iron Magnetic Ore,
Ditto Specular,
Ditto Hæmatite,
Ditto Bog,
Pyrites, (for the manufacture of Copperas and Sulphur,)
Lead Sulphuret or Galena,
Ditto Argentiferous,
Copper Pyrites,
Ditto Grey Ore,
Manganese Peroxide, (for bleaching purposes,)
Ditto Bog, ,, ,,

Mineral Paints.—Barytes, (Permanent White,)
Iron Ochre, Brown, ditto Blue, Red Marl,
Bog Manganese, Plumbago.

Combustib. Materials.—Coal common, Anthracite, Lignite,
Asphalte, Petroleum, Naptha,
Asphaltic Shale, Peat.

Grinding and Polishing Materials.—Millstones, Grindstones,
Whetstones, Hones.

Clays, Sands, &c.—Clay, Red or Blue, for Bricks or Tiles,
Clay, White, for Stoneware, &c.,
Ditto Fire, for Fire Bricks,
Sand, White, for Glass-making,
Ditto ,, for Moulding.

Manures.—Lime and Marl,
Gypsum or Plaster.

Ornamental Stones.—Agates and Jasper,
Amethysts.

Building Stones.—Granite of different colours; 8 in. cube, dressed,
Porphyry, " " " "
Sandstone, " " " "
Limestone, " " " "
Marble, " " " "
Alabaster, " " " "
Roofing Slates and Flag Stones.

CLASS I.—SECTION B.—MANUFACTURES.

In Metal.—Stoves, for Parlour, Hall, Ship, &c.,
Cooking Stoves, for wood, with furniture,
Ditto " for coal,
Cooking Range, Furnace and Fenders,
Boilers, Pots and Pans,
Ploughs and Drill Harrows, Potato Diggers,
Spades, Shovels, Hoes, Hay and Manure Forks,
Axes, narrow and broad, Planes and Chisels,
Hammers, Augers, Screws, Nails—Cut or Wrought,
Locks, Latches, Safes, Fire Arms, Cutlery, Clocks,
Electrical, Astronomical and Surveying Instruments,
Steam Engines, Lathes,
Machines for drilling, planing, riveting, or screw cutting metals,
Machines for sawing, planing, morticing or boring lumber,
Fire and Garden Engines, Pumps,
Crabs, Cranes, and Screw Jacks,
Toothed Wheels, Link work and Couplings,
Work of Silversmith and Jeweller,
Ditto of Blacksmith, Coppersmith, and Tinsmith.

Miscellaneous.—Salt, Potash, and Pearlash,
Lime and Plaster, Cements,
Illustration of manufacture of Iron, Gas, Salt, &c.,
Pottery, Bricks—common and faced,
Drain Tiles, Flower Pots, Crocks, Bowls, &c.

CLASS II.—VEGETABLE KINGDOM.—SECTION A.—RAW MATERIALS.

From the Forest.—Butternut, Basswood, Beech, (Panel of,)
Poplar, Balsam and White, "
Ash, White and Black, "
Elm, Red and White, "

From the Forest—Continued.—Oak, Red, White and Red (Panel of,)
Maple, White, Red and Rock, "
Birch, Canoe, White, Yellow & Black, "
Hornbeam, small Scantling, Iron Wood, "
Pine, White, Red and Grey, "
Spruce, black, white, Hemlock & Balsam, "
Cedar, Larch or Hacmatac, "
Cranberries, Wax Berries.

From the Farm.—Wheat, Spring or Fall, in sheaf or grain,
Corn, Common and Broom, " "
Oats, Rye and Barley, " "
Peas and Beans, Buckwheat " "
Timothy Seed, Clover ditto, " "
Flax and Hemp, in Stalk, Seed, or Fibre,
Millet, in Stalk or Seed, Hops,
Potatoes, Turnips, Carrots, Mangold Wurtzel.

From the Garden.—Apples & Pears (named varieties, fresh & dried),
Melons, Cucumbers, Squashes and Pumpkins,
Tomatoes and Peppers, Turnips, Carrots,
Beets, Parsnips, Onions, Celery, Salsify, Mushrooms,
Cabbages, Cauliflowers,
Flowers, Bouquets, and Baskets,
Garden Seeds, Green House Plants, Dried Plants.

CLASS II.—SECTION B.

Manufactures, chiefly of Wood.—Ploughs, Harrows, Cultivators,
Stump and Rock Extractors,
Horse Powers, Fanning and Threshing Mills,
Grain Drills, and Wooden Rollers,
Straw Cutters and Wooden Rollers,
Straw Cutters and Corn Shellers,
Horse and Hand Rakes, Snow Shovels,
Cheese Presses, Churns and Butter Workers,
Flails, Ox Yokes, Bee Hives, Barrels, Tubs and Pails,
Shingles, Clapboards, Laths and Veneers,
Whip, Axe, Scythe, Rake and Broom Handles,
Tables, Chairs, Sofas, and Ottomans,
Cabinets, Wardrobes, Bedsteads and Cradles,
Screens and Picture Frames,
Lasts, Shoe Pegs and Lucifer Matches,
Capstan-Heads, Blocks, Wheels and Capstans,
Bench-Screws, Pumps, Turnery, Basket-Work,
Pianos and Musical Instruments,
Carriages, Waggons, Carts and Wheelbarrows,
Sleighs, Sleds, Hand-Sleds, and Child's Sleds.

CLASS II.—SECTION C.

Manufactured Products, from Grain, Fibre, &c.—Flour and Meal of Cereal Grains,
Malted and Hulled Barley, &c.,
Biscuit and Confectionary,
Straw and Grass Plait Hats and Bonnets,
Mats and Matting, Corn Brooms and Birch Brooms,
Cables, Cordage, Twine and Thread,
Linen and Cotton Sheeting, Shirting and Towelling,
Paper, Wrapping, Writing, &c., Cider and Vinegar,
Spruce Gum and Fir Balsam, Dye Stuffs and Colours,
Tanning Materials, Maple Sugar, Raw and Refined.

CLASS III.—ANIMAL KINGDOM.—SECTION A.

Cattle.—Durham Bull, Cow, Heifer, Calf, Ox or Steer,
Devon, ,, ,, ,, ,, ,,
Ayrshire, ,, ,, ,, ,, ,,
Hereford, ,, ,, ,, ,, ,,
Alderney, ,, ,, ,, ,, ,,
Angus, ,, ,, ,, ,, ,,
Mixed or Native breeds, Fat Cattle of any breed.

Horses.—Stallions, thoroughbred and others,
Geldings & Mares, ,, ,,
Colts, ,, ,,
Matched span of Horses.

Sheep.—Leicester Ram, Ewe, Lamb, Wether,
Southdown, ,, ,, ,,
Saxon, ,, ,, ,,
Mixed or native breeds,

Pigs.—Boars, of pure and mixed breeds,
Sows, ,, ,, ,,

Poultry.—Fowls, of pure and mixed breeds,
Turkeys, ,, ,, ,,
Ducks ,, ,, ,,
Geese, ,, ,, ,,
Pigeons, ,, ,, ,,
Others, ,, ,, ,,

CLASS III.—SECTION B.

Manufactured Products of Animal Kingdom.—Barrel Beef, Butter, Cheese, and Tallow,
Barrel Pork, Bacon, Hams, Lard, Bristles and Brushes,
Oil, Honey, Wax, Candles, Tallow and Composition,

Manufactured Products of Animal Kingdom—Continued.—Soaps,
Brown, white and fancy,
Leather, sole, upper and fancy, single and double Harness, Saddles,
Trunks, Portmanteaus, and Leather Cases,
Boots and Shoes, of all kinds,
Hose Pipes, Fire Buckets, Bellows, Bookbinding, strong and fancy,
Wool Fleeces, Worsted Manufactures, Blankets and Flannels,
Comforters, Coverlids, Rugs and Carpets,
Socks, Mittens, Fringe and Tassels,
Shawls, Plaids and Checks,
Cloth, broad, narrow, fulled, not fulled, mixed,
Tailor's, Hatter's, and Milliner's Work,
Fur and Fur Coats, Capes and Mittens,
Feathers and Down, Quill and Hair Work,
Horns and Horn Work, Bones ground,
Snow Shoes and Moccasins,
Fish, smoked, pickled, dried or preserved,
Lobsters and other Shellfish, preserved, &c.

CLASS IV.—FINE ARTS, &c.

Specimens of Painting in Oil,
Ditto in Water Colours,
Drawing, in Crayons,
Ditto in Pencil,
Decorative Painting, Engraving,
Wood-Cutting and Lithography,
Daguerreotypes and Electrotypes,
Sculpture and Carving in Stone, Wood, &c.,
Typography, Patterns for Casting, &c.,
Fancy Knitting, Netting, Embroidery, &c.

Models of Ships, Brigs, Schooners, Boats, &c.,
Public Building, Farm House, Barns, &c.,
Harbor, Dock, Wharf, and Light House,
Dams, Salmon Ways, Break Waters and Bridges,
Fog Bell, Tide Guage, Saw Mill, Wind do., Grist do., &c.

The Corresponding Secretary, as Chairman of the Committee to Report on Show Grounds and Exhibition Building, agreeably to the 6th Resolution of October last, reported as follows:—

Report of the Preliminary Committee for the Exhibition.

The Committee appointed on the 15th October last, "to select the necessary Show Grounds and kind of Building for the Exhibition, with plans and estimates of the probable expense thereof," beg to report as follows:—

1. It was considered by all, that if the beautiful piece of ground in the rear of the City of Fredericton, commonly known as "The Grove," or "Park," belonging to the family of the late Hon. W. F. Odell, could be secured for the purposes of the Exhibition, no site more suitable could be had; nor one which would so combine the advantages of great natural beauty with fitness. On application to Dr. Odell and the Hon. W. H. Odell, upon this subject, the above most desirable piece of ground was at once, and most generously put at the disposal of the Society, without hire or rent, for the purposes of the Exhibition, provided the same was restored to the owners in as good a state as when given up to the Society; and further provided, that the present arrangement should not be allowed to interfere with the possible sale of the land in the mean time.

The Committee have thankfully accepted the ground upon the above conditions.

2. The Committee considered that a canvas tent was preferable in many respects to either a wooden building, or anything of the nature of India Rubber fabric. Canvas tents are in general use for such purposes elsewhere, and they are better adapted for moving and carrying about to different places of the country than any other kind of erection. Before, however, finally determining upon the general character and dimensions of the building, it was considered desirable to consult the Secretary of the New York State Society in regard to some of the details. Accordingly he was addressed by the Vice President for St. John, and an extract from his answer to Mr. Jardine, (herewith given,) puts us at once in command of almost the whole subject:—

"New York State Agricultural Rooms,
"*Albany, Dec.* 24, 1851.

"Dear Sir,—I have your letter of the 12th instant, and although I cannot answer it fully to-day, I thought best to give you all the information I now have, and write again in a few days.

"The tent which we have for our Fairs, is 140 × 80—35 feet to the extreme of the tent, 12 feet walls.

"A tent of this size, of the best quality of cotton duck, flat seamed, with rigging complete to sustain a moderate breeze, can be purchased here for $725. It would be done in the best style; if not satisfactory as to work and materials when done, no sale.

"As to the tent with transepts, I cannot give you an answer until the gentleman whom I have consulted, and who has made all the new tents for our State and County Societies, has made his estimates —which he will complete, as soon as he can prepare a model, from which he will be able to give the cost.

"The tent like ours, can be prepared and ready to be delivered in 6 weeks from the time of the order. The other probably would take two weeks longer to prepare.

"Our tent is a very convenient one, and can be arranged internally very easily and very tastefully.

"The tents can be obtained of 'E. C. Williams, Rochester, New York.' A letter addressed to him, through me, will be forwarded at once, and I can assure you of his faithfulness in doing what he undertakes."

* * * * * * *

The committee had contemplated a tent with transepts, and of proportions not very different from those of the tent used by the New York State Society; it will, perhaps, be better now to give up the idea of transepts, and leave the proportions for a future day.

A large Pavilion, therefore, such as the above, with open pens or stalls for cattle, &c., in its vicinity, will constitute all the buildings required.

3. The Committee consider that the charges connected with the said erection should be defrayed by means of a special appropriation from the Provincial Treasury; the Pavilion would thus become public property, and might be conveyed from time to time into such Counties as were fixed upon as the seat of the periodical Exhibitions of our Art, Industry, and Resources.

4. It may also be requisite to consider the propriety of petitioning the Legislature for an appropriation of public moneys for the subject of Premiums, to be bestowed on exhibitors at the proposed Provincial Show and Fair.

All of which is respectfully submitted,

J. ROBB, *Chairman of Prel. Com.*

The following Resolutions were then moved and unanimously adopted:—

1. *Resolved*, That the following be the local Committees for the respective Counties throughout the Province, to attend to the interests of the Exhibition generally, agreeably to the 8th and 10th of the Resolutions of October last; which Committees are also requested to call meetings of their members, appoint a Chairman, Secretary and Treasurer, add to their number if they see fit, correspond with and

remit subscriptions to Dr. Robb, Corresponding Secretary of this Society, and attend to the transmission of articles to the Exhibition :—

Executive Committee of the Society,
Hon. Chief Justice,
Hon. Master of Rolls,
Hon. Judge Wilmot,
Hon. W. H. Odell,
Hon. T. Baillie,
Lieut. Col. F. Murray, 72d Highlanders,
Lieut. Col. R. Hayne, A. D. C.,
His Worship the Mayor of Fredericton,
Col. Maclauchlan, President of C. A. S.,

YORK.

James Taylor, Esq., M. P. P.,
C. Macpherson, Esq. M. P. P.,
George Botsford,
Spafford Barker,
Thomas Barker,
William Barker,
Joseph Myshrall,
Robert Gray,
Thomas Murray,
John Simpson,
John Grant,
J. B. Toldervy,

J. M. Odell,
J. Wilkinson,
B. Wolhaupter,
W. Watts, Jr.,
J. Harding,
William Morgan,
Andrew Ritchie,
A. W. Block,
George Taylor,
John T. Lawrence,
George Todd,
T. R. Estey,
D. M'Pherson,
Peter M'Farlane.

SAINT JOHN.

Hon. Judge Parker,
President, Directors, & Secretary of the Mechanics' Institute,
Dr. Peters,

Dr. Bayard,
Dr. Botsford,
Isaac Olive,
J. M. Olive,
Spiller & Broad,

Robert Jardine,
D. B. Stevens,
John Owens,
Thomas Allan,
William Jack, Esq.

KING'S.

A. C. Evanson,
G. Ryan,
Hon. W. M'Leod,

M. M'Leod, M.P.P.
J. Hagarty, Upham,
Rev. W. E. Scovil,

LeBaron Drury,
S. Z. Earle.

ALBERT.

Col. Clark,
J. Turner,
J. Edgett,

J. Lewis,
T. B. Moore,

Hon. W. H. Steves,
W. Cairnes.

WESTMORLAND.

Hon. A. E. Botsford,
J. F. Allison, Esq.,
E. B. Chandler, Jr.,

C. Milner, Esq.,
J. Robb, Esq.,
B. Botsford, M. P. P.

Hon. W. Crane,
J. G. Layton.

KENT.

Hon. J. W. Weldon,
W. Chandler,

Lestook Desbrisay,
Sheriff Wetmore,

R. Cutler, M. P. P.,
R. Hutcheson.

NORTHUMBERLAND.

Hon. Attorney General,
W. Wright,
Mr. Goodfellow,

G. Kerr, Esq.,
P. Mitchell,
D. Wetherill,

Edward Williston,
James Caye,
J. Porter.

GLOUCESTER.

F. Ferguson,	Dr. Bishop,	E. Packard,
Jos. Read, M. P. P.,	R. Napier,	T. Desbrisay.
J. Woolner,		

RESTIGOUCHE.

A. Barberie, M. P. P.,	Chipman Botsford,	Mr. Bennett,
D. Stewart,	Rev. Mr. Steven,	Peter Stewart.
Hon. J. Montgomerie,		

CARLETON.

Sheriff Winslow,	J. A. Phillips,	A. Upton,
J. Dibblee,	C. Perley,	R. English, M. P. P.
H. Dibblee,	J. Ryder,	J. R. Tupper.
E. Jacob,	J. Harvey,	

VICTORIA.

L. R. Coombes,	B. Beveridge,	J. Emerson,
W. Maclauchlan,	W. T. Wilmot,	G. Currie,
Sheriff Beckwith	F. Rice, M. P. P.,	J. Michaux.

CHARLOTTE.

Hon. H. Hatch,	Capt. Robinson,	R. D. James,
Rev. Dr. Thompson,	Hon. J. Brown,	A. T. Paul,
H. Frye,	Col. Mowat,	J. G. Stevens.

QUEEN'S.

Hon. T. Gilbert,	Col. Peters,	D. Palmer,
Sheriff DeVeber,	T. R. Wetmore,	J. Currie,
Peniston Coster,	James Johnston,	E. L. Burpe.
J. Earle, M. P. P.,		

SUNBURY.

Hon. R. D. Wilmot,	C. L. Hatheway,	Rev. J. Porter,
Col. Hayward,	Thomas Bliss,	William Burpe.
W. Scoullar, M. P. P.,	C. Harrison,	

2. *Resolved*, That the Executive Committee do forthwith prepare and submit a petition to the respective branches of the Legislature, praying that the sum of £500, or such other sum as the Legislature may deem right, may be placed at the disposal of His Excellency the Lieutenant Governor, to be available for the Society to pay for a new tent and premiums for the Exhibition, should the same be required.

3. *Resolved*, That in view of the contemplated Exhibition, the Executive Committee do without delay exert their efforts to obtain donations and subscriptions for the Society.

4. *Resolved*, That the Corresponding Secretary do without delay correspond with the Vice Presidents, County Agricultural Societies,

Mechanics' Institutes, Local Committees, Manufacturing Establishments, and individuals in different parts of the Province, agreeably to 9th Resolution of October last, and forward a copy of the schedule and proceedings in connection with the Exhibition, and report his doings at the meeting of the Society to be held during the sitting of the Legislature, that such Report may be acted upon.

5. *Resolved*, That the Corresponding Secretary do correspond with the office-bearers of this Society in different parts of the Province, as also with the Presidents of County Agricultural Societies, and other individuals, with the view to a more effective organization of the Society in their respective districts; and inquire whether there be any particular subject or subjects deserving the immediate attention of this Society, and if so, whether such person or persons will consent to be named on a Special Committee at any meeting of the Society, to report on such subject at a subsequent meeting; and that the Corresponding Secretary report the same to the Society.

6. *Resolved*, That the Executive Committee do prepare and submit a schedule of appropriations for the year 1852.

7. *Resolved*, That the thanks of the Society are due to His Honor the President, and to the various officers and supporters of the Society for the past year.

8. *Resolved*, That the following gentlemen are elected as officers of the Society for the year 1852:—

President:—JUDGE STREET.

Vice Presidents:

York,	*R. Chestnut, Esq.*
"	*J. Jones, Esq.*
St. John,	*R. Jardine, Esq.*
Charlotte,	*Hon. H. Hatch.*
Kings,	*A. C. Evanson, Esq.*
Queens,	*Hon. T. Gilbert.*
Sunbury,	*C. L. Hatheway, Esq.*
Carleton,	*H. E. Dibblee, Esq.*
Victoria	*L. R. Coombes, Esq.*
Restigouche,	*A. Barberie, Esq.*
Gloucester,	*F. Ferguson, Esq.*
Northumberland,	*George Kerr, Esq.*
Kent,	*Hon. J. W. Weldon.*
Westmorland,	*Hon. A. E. Botsford.*
Albert,	*Lieut. Col. Clarke.*

Corresponding Secretary—*Dr. J. Robb.*

Recording Secretary—*R. Fulton, Esq.*

Treasurer—*J. Gaynor, Esq.*

Additional Members of the Executive Committee.—Mr. Wm. Watts, Sen.; D. S. Kerr, J. A. Beckwith, J. Gregory, and W. Carman, Esquires.

9. *Resolved*, That the Editors of Newspapers throughout the Province are respectfully requested to give publicity to the proceedings of the Meetings, for the purposes of the Exibition.

SPECIAL COMMITTEES.

1. *Resolved*, That Samuel W. Babbit, Esq., and Mr. Thomas Boies, be a Special Committee to inquire and report to this Society at the Quarterly Meeting in April next, on the most efficient means for establishing Agricultural Warehouses and Stores in the different Counties of the Province.

2. *Resolved*, That Mr. Robert Gray, be a Special Committee to inquire and report to this Society at the Quarterly Meeting in April next, on the best modes of improving the breeds of Stock in this Province.

3. *Resolved*, That John Gregory, Esq., and Dr. Robb, be a Special Committee, to inquire and report to this Society, at the General Meeting in April next, upon the Agricultural statistics of the Province.

4. *Resolved*, That Dr. Robb, John A. Beckwith, Esq., and Mr. T. Barker, be a Special Committee to inquire and report at the Quarterly Meeting in April next, as to the breeding and management of Pigs.

Extract from the Minutes.

R. FULTON, *Recording Secretary.*

FREDERICTON, *8th January*, 1852.

At an adjourned General Meeting of the Society held at the New Market House on the 28th day of February, 1852—the President in the Chair:—

The Hon. Judge Street, as President, opened the meeting by giving a short statement of what the Society had done during the last year, what they proposed to do this year, especially as regarded the proposed Grand Exhibition, and pointed out what he thought was necessary to be done by the Legislature and the people of the Province, generally, in order to enable the Executive Committee to carry out what they proposed to effect.

The Corresponding Secretary reported what he had done in the matter of the proposed Exhibition, and the results thereof.

It was then moved by the Hon. the Attorney General, and seconded by Dr. Robb,

That whereas the Reports published by this Society have been found to be of general utility throughout the Province,

Resolved, That the Executive Committee be requested to continue the publication, from time to time, of such further Reports, Prize Essays and Papers, as may seem applicable to the circumstances of the Province.

Moved by the Hon. James Brown, seconded by Charles Macpherson, M. P. P.,

That whereas the opinion of the public has been unmistakeably expressed by correspondence and otherwise, in favor of a Provincial Show and Fair, upon the plan proposed by the Society in October next, therefore

Resolved, That this Meeting do heartily approve of the said plan, and rely with confidence upon the Executive Committee using their best exertions to carry the same into effect with honor and credit to the Province.

Moved by the Hon. R. D. Wilmot, seconded by the Hon. Wm. Hamilton, that

Whereas there are many persons living at a distance from Fredericton, who might wish to exhibit articles for competition, but who, on account of the expense of forwarding them, might be deterred from the want of means, therefore

Resolved, That the Executive Committee be authorized to make such arrangement for the transport of articles for the proposed Exhibition, and for defraying the expense of such transport out of the funds of the Society, under such rules, regulations and restrictions, as upon mature deliberation may be deemed by such Committee most advisable.

Moved by Dr. Robb, and seconded by J. A. Beckwith, Esq.,

Resolved, That a silver cup, of the value of five pounds, be presented to C. L. Hatheway, Esq., in consideration of the merit of his papers upon the subjects of the Management of a Farm, generally, the Management of Orchards, and the storing and using of Turnips and other Root Crops, presented by him for competition to the Society.

Extracts from the Minutes of a Regular Quarterly Meeting, held in the County Court House on the 7th of April, 1852.

Read Report of the Executive Committee on the subject of appropriations for the current year as follows:—

The Committee beg to report that, "Owing to the great uncertainty as to what grant would be made by the Legislature for the Exhibition until Saturday last, when £500 was granted for that purpose, (without which grant no Exhibition of the kind contemplated could have been carried into effect,) the Committee have not as yet been able to prepare any scale of appropriations for this year, nor can they do so until they ascertain with some degree of certainty what the expenses of such Exhibition are likely to be, and what probable amount of funds they will have at their command, which latter cannot be known until the subscriptions from the different parts of the Province come to their hands.

"The Committee therefore think that it must necessarily be left for this year to their discretion to make such appropriations for the different objects in view, as they may deem expedient under the circumstances, which must be governed by the amount of funds they may receive—with, however, this understanding, that they are to give all due consideration to any advice and suggestions they may be favored with from the local Committees, touching such appropriations."

G. F. STREET, *Chairman.*

Submitted the Report of Mr. Robert Gray, on the breeding and improving of Farm Stock, and

Ordered, That the same be accepted and referred to the Executive Committee for publication.

The following Resolutions were then moved and passed unanimously:—

Resolved, That the Report of the Executive Committee on the subject of appropriations be adopted and acted upon by that Committee.

Resolved, That a Circular be sent to each of the local Committees throughout the Province, requesting them to call a meeting at their earliest convenience, with a view to promote, as far as may be, the objects of the proposed Exhibition to be held at Fredericton on the 5th of October next, by appointing active, zealous persons as additional members of their Committee, who will exert themselves to procure articles for such Exhibition, and to collect subscriptions to aid in defraying the expenses thereof.

Further Resolved, That the local Committees be recommended to appoint Sub-Committees for each parish within their respective counties, who shall collect and take charge of such subjects from the schedule of the Society, or others, as are to be procured within their own districts.

Further Resolved, That the various local and other Committees, be requested to report on or before the first of July next, the amounts contributed within their respective districts for the purposes of the Exhibition, together with such limitations or restrictions as may attach to the said contributions.

Resolved, That the best thanks of the New Brunswick Society are due, and are hereby given to the various County Agricultural Societies, and to the various local Committees who have already organized and so warmly exerted themselves in the cause of the Exhibition.

Resolved, That the best thanks of the Society are due to the various members of the Legislature who have so warmly exerted themselves to secure the recent grant of £500, and the use of the Province Hall for the purposes of the Exhibition.

Resolved, That the Telegraph Companies be requested to allow the officers of the New Brunswick Society the use of the Telegraph *free*, for the purposes of the Exhibition.

Resolved, That the proprietors of Steamboats, and other public conveyances, be, and hereby are requested to allow contributions to the Provincial Show or Fair, to be transported to and from Fredericton free of charge.

Resolved, That the Executive Committee be instructed to prepare and publish, as soon as possible, a Premium List for the Exhibition.

Resolved, That hereafter, the Treasurer's annual account of the receipts and expenditures of money of the Society, together with the principal bills, which comprise the largest items thereof, shall be published as part of the pamphlets of this Society for each year; and such accounts for 1850 and 1851, shall be accordingly published in the pamphlet of this Society for the present year.

Resolved, That in addition to a compliance with the requisitions of the Law and of the Constitution of this Society concerning accounts, the Treasurer, at the Annual Meeting in January in each year, do furnish his account of receipts and expenditures for the past year, and that the same, being duly audited, shall be forthwith published in one or more newspapers of the Province, and a copy of such published accounts shall, on the first day of the Session, be enclosed to, and sent to the Speaker of the House of Assembly, for the inspection of the several members thereof.

Resolved, That all accounts of demands upon the Society, and payable by it, shall be placed in the Treasurer's hands, as also the several subscription lists, and that a regular file of such accounts, and another of such subscription lists shall be kept by the Treasurer for inspection on all proper occasions.

And whereas the contemplated Exhibition for October next is mainly undertaken for the general good, and the design thereof must materially fail unless it receive the voluntary aid and hearty co-operation of all classes of the people throughout the Province, therefore

Resolved, That, in all services performed for this Society, relating to the Exhibition, in any part of the Province, it shall be considered as done and performed for the good of the cause and without charge, (but entitled to the thanks of the public,) unless a notification be given, before the performance of such service, that the same is to be charged for, in which event a bargain or contract shall be previously entered into, for the thing to be done and the price to be paid for it.

Resolved, That the President of the Society be requested to prepare and publish an Address to the public on the subject of the contemplated Great Exhibition.

R. FULTON, *Recording Secretary.*

THE PRESIDENT'S ADDRESS.

"*New Brunswick Society, for the encouragement of Agriculture, Home Manufactures and Commerce.*

"*Great Provincial Exhibition, to be opened at Fredericton on Tuesday the 5th of October next, under the auspices and patronage of His Excellency the Lieutenant Governor, and Lady Head.*

"To the Public:—

"The Legislature having passed a grant of £500 in aid of the funds of the Society, to provide for the expenses of getting up and managing the proposed Exhibition, &c., thereby showing their approval of the same, upon the plan and contemplated arrangements contained in the resolutions of the Society passed at the general meeting held on the 16th of October and 7th of February last, which have all been heretofore published and widely circulated throughout the Province, the Executive Committee are now actively engaged in the preparations requisite for carrying out the scheme, and all local Committees for the different counties in the Province—the General Committee, consisting of the Legislative Council and members of the House of Assembly, in their private capacities in their respective counties—the several County Agricultural Societies and Mechanics' Institutes in the different parts of the Province—Manufacturing Companies, and all Agriculturists, Horticulturists, Manufacturers, Mechanics, Artisans and Artists, throughout the country—and all other persons taking an interest in its welfare and prosperity, are now called on to be up and doing in aid of this great work, and no time is

to be lost in preparing articles to be brought forward for competition, and raising subscriptions in aid of the funds necessary to provide for the large expenses that must be incurred.

"It will be seen by the schedule and classified list of the objects for the Exhibition, already published, that it will be open to all the natural productions (both mineral, animal, and vegetable,) of the Province; to all kinds of agricultural produce; to all articles of home manufacture of every description; to Cattle, Horses, Sheep, Pigs, Poultry, and cured Meats of all kinds; and to specimens of all the different branches of the Fine Arts.

"Farmers, Gardeners, Manufacturers, Musical Instrument Makers, Jewellers, Watch and Clock Makers, Carpenters, Wheelwrights, Blacksmiths, Whitesmiths, Founders, Mill Owners, Carriage Builders, Boot and Shoe Makers, Saddlers, Harness Makers—and indeed all descriptions of Mechanics, Artisans and Artists, are therefore strongly invited to come forward, with the respective productions of their industry, ingenuity and ability, in their different callings, for a generous competition with each other for excellence, and thus shew what the resources of the Province are, and what the people in it can do. The Ladies of the Province are also solicited to exert their talents and ingenuity in fancy and ornamental work for the Show.

"Liberal Prizes will be awarded to the victors in this praiseworthy rivalship, a list of which will be hereafter published as soon as it can be prepared and arranged. Pecuniary assistance to a limited amount, so far as funds will permit, will be placed at the disposal of the respective local Committees for counties at a distance from Fredericton, to afford aid to such persons as may be in need of the same, in the expenses of transmitting their articles for competition to the Exhibition; and the more liberal the subscriptions from such counties are, the greater will be the amount to which such aid can be extended to them.

"The Exhibition will be opened by His Excellency the Lieutenant Governor, in person, on Tuesday the 5th of October next, and closed on Saturday the 9th, during which time a Fair will be held with the Exhibition, at which Ploughing Matches, Regattas, and various kinds of public amusements and sports will be hereafter provided—as the object is to make this great Exhibition a Show not only highly beneficial to the Province at large, (and thus carry out the most important objects of the Society,) but also instructive and amusing to all who attend.

"The use of the Province Building has been kindly granted to the Society for the occasion, in which all articles of a nature to require great care, safe keeping, and protection from the weather, will be placed.

"Every exertion will be made to provide the means of comfortable

accommodation in Fredericton and its immediate vicinity, for visitors to the Show.

"It is hoped and trusted that the public press of the Province—that powerful engine for promoting all great undertakings—will act in behalf of this good cause, and that the editors of newspapers in the several districts of the country will give insertion in their respective papers to this communication, and exert themselves to give general information on, and keep the public attention alive to, all matters connected with the scheme, which may tend to its success and excite an extensive spirit of enterprise and desire for excellence among the people.

"G. F. STREET, *President of the Society.*

"FREDERICTON, 8*th April*, 1852."

PROVINCIAL EXHIBITION COMMITTEE.

At the first meeting of the Exhibition Committee for the County of York, held on Saturday evening the 10th of April, at the Old Market House, a very prompt and full attendance of the members was had, and great interest and unanimity characterized the proceedings of the evening.

The Committee was organized on motion of His Honor Mr. Justice Street, President of the Society, by the appointment of

THE HON. MR. JUSTICE WILMOT, *Chairman.*
JOSEPH GAYNOR, ESQUIRE, *Treasurer.*
WILLIAM WATTS, JR., ESQUIRE, *Secretary.*

On motion of Mr. Justice Street, it was

Resolved, That the following be a Committee for raising subscriptions for the Society and Exhibition in connexion therewith, for the present year, viz.:—

David S. Kerr,	G. L. Hatheway,	Thomas Jones,
John A. Beckwith,	William Davidson,	Peter M'Farlane,
Joseph Myshrall,	George Morehouse,	Thomas Murray,
John Gregory,	William Dayton,	David L. Grant,
John C. Allen,	Col. Hayne,	Asa Dow.
Edward Simonds,		

On motion of Mr. T. R. Barker,

Resolved, That the following be a Committee to make arrangements for the accommodation of visitors in October next:—

The Mayor,	Joseph Myshrall,	John Gregory,
The City Clerk,	William Watts, Jr.,	E. W. Miller,
Spafford J. Barker,	David S. Kerr,	Sheriff Wolhaupter.

On motion of David S. Kerr, Esq.,

Resolved, That the following be a Committee for superintending the arrangement of the Province Building for the Exhibition :—

George Botsford,	George Bliss,	Jonathan Harding,
Hon. W. H. Odell,	Col. Hayne,	Charles Brannen.
William Watts, Sr.,		

On motion of Dr. Robb,

Resolved, That the following be a Committee for collecting Agricultural Produce, Stock, and Domestic Manufactures in this County, viz. :—The President and Executive Committee of the York County Agricultural Society.

On motion of the Hon. Chief Justice,

Resolved, That the following be a Committee for arranging and managing sports and amusements for the Exhibition week, viz. :—

Lieut. Col. Murray, & Officers of 72d,	President of St. John Agri. Society,	Lieut. Bedingfeld, President of York Agri. Society,
The Mayor,	Capt. Knox,	Secretary of ditto.
Col. Hayne,	W. F. F. Jones,	
Dr. Toldervy,	B. Robinson,	

and that this Committee do report thereon on the first day of June next.

On motion of George Botsford, Esquire,

Resolved, That the following be a Committee for collecting and preparing woods and manufactures, chiefly in wood—(Schedule, Class II., Section A, Forest, and Section B) :—

Jonathan Harding,	Dr. Toldervy,	Alexander Mitchell,
C. Macpherson,	Isaac Naish,	John Edgecomb,
George Taylor,	John Davis,	Thomas Rutter,
Thomas Richards,	Andrew Richey,	John Grant.
Thomas Aitken,	John T. Lawrence,	

On motion of John A. Beckwith, Esquire,

Resolved, That the following be a Committee for manufactures in metal, as per schedule :—

Robert Chestnut,	John Russell,	John M'Causland,
William Morgan,	Thomas Allan,	T. R. Estey,
Peter M'Farlane,	George Todd,	A. Bennet.
James White,	Justin Spahnn,	

On motion of William Carman, Esquire,

Resolved, That the following be a Committee for collecting and forwarding specimens of the Fine Arts, &c., in Class IV. of the schedule :—

Hon. Chief Justice,	J. Wilkinson,	Dr. Odell,
Dr. Toldervy,	William Morgan,	John Grant,
J. E. Woolford,	Master of the Rolls,	John Simpson,
D. L. Robinson,	Mr. Justice Wilmot,	Charles Smiler.

On motion of Col. Hayne,

Resolved, That the following be a Committee of Horticulture viz.:

Hon. Judge Wilmot,	W. Watts, Senr.,	J. E. Woolford.
Hon. Atty. General,	William Decantlin,	

On motion of T. R. Estey,

Resolved, That the following be a Committee for Leather and miscellaneous manufactures :—

S. D. M'Pherson,	S. K. Foster,	Robert Sutherland,
Henry S. Beek,	Henry Rutter,	Thomas R. Barker.
J. M'Innes,	Alexander Block,	

On motion of J. Wilkinson, Esquire,

Resolved, That the following be a Committee for procuring and preparing raw materials from the mineral kingdom, (as in Class I., Section A, of the Schedule) :—

Dr. Robb,	Alexander Block,	Otis Small,
Professor Jack,	John Grant,	J. Wilkinson.
Surveyor General,	Dr. Toldervy,	

On the suggestion of the Chairman, it was

Ordered, That the several Sub-Committees have power to add to their numbers from time to time, as may seem desirable.

On motion of Dr. Robb,

Resolved, That the City Papers be requested to give insertion to the proceedings of this Meeting.

L. A. WILMOT, *Chairman.*

W. WATTS, JR., *Secretary.*

REPORT OF PRIZE COMMITTEE.

FREDERICTON, 17*th February*, 1852.

To the NEW BRUNSWICK SOCIETY, *for the encouragement of Agriculture, Home Manufactures and Commerce.*

The undersigned, a Committee appointed to consider and report upon the papers sent in to compete for the Premiums offered by the Society at their Quarterly Meeting, held on the 22nd day of April, 1851, beg to report:—

That seven Essays or papers have been sent in and submitted to them; of which three were answers to the questions concerning the general management of Farms; two were upon the management of Orchards; and two upon the best modes of storing and using Turnips.

Your Committee consider all the papers laid before them to be of a useful and practical nature, and they recommend that they be printed and published under the revision of the Executive Committee in the forthcoming number of the Society's Reports.

They have awarded the first premium on the subject of farm management to DR. GEORGE F. PETERS, of Lancaster, in the County of St. John, for his paper signed "*Agricola*;" the second to R. JARDINE, Esq., of St. John, for his paper signed "*We'll Try*;" and the third to C. L. HHTHEWAY, Esq., of Sunbury, for his paper headed "*Encourage the Farmer.*"

Your Committee do not consider that there is by any means a proportionate difference between the merits of these papers, respectively, and the nominal value of the Premiums allotted to them in the list published by the Society.

Your Committee have awarded the Premium for the best Essay on Orchards, to Mr. WILLIAM WATTS, Senr., of Fredericton, for his paper with the motto "*Be Fruitful.*"

The Premium for the best Essay on Turnips, your Committee would assign to Mr. J. G. LAYTON, of Dorchester, for his paper marked with the superscription "*P. M.*"

Your Committee would beg to state that Essays on the two latter subjects were handed in by C. L. HATHEWAY, Esq. All three of that gentleman's Essays exhibit a very considerable degree of merit and original observation, in consideration of which, they beg to recommend that the Society award to Mr. HATHEWAY a Silver Cup (with an appropriate inscription,) to be of the value of five pounds.

JAMES ROBB,
J. A. BECKWITH,
J. GREGORY. } *Committee.*

PRIZE ESSAYS.

The Management and Improvement of Orchards in New Brunswick.

BY WILLIAM WATTS, SENR.

The interest which I feel in the prosperity of this Province, the importance I attach to the judicious cultivation of well selected fruit, and the indifference which is observed to prevail, too generally, on the subject thus suggested by "The Society for the encouragement of Agriculture, Home Manufactures and Commerce," induce me to offer in this Essay the results of some twenty-five years' experience in importing, propagating, and cultivating different kinds of fruit, in the hope that I may be enabled to afford some useful hints on a useful subject.

I take it for granted, that the terms used by the Society, have reference to the apple only, as there are no other orchards in the country; and in this understanding of their meaning, in offering their premium on this subject for competition, I shall confine my remarks chiefly to the apple, offering such occasional observations on other kinds of fruit as may occur to me as useful or necessary.

It is to be regretted that the cultivation of the apple has never received that attention in this Province to which it is entitled. Even in countries where fruits abound in greatest variety, the apple is esteemed as valuable and profitable; and if it is treated with care, and regarded with interest, in more propitious climates, how is its value enhanced to us, who, being excluded by the severity of our winters from any opportunity to grow the more tender fruits in the open air, are driven, as our only resource, to those hardier kinds, such as apples, pears and plums, which defy the rigour of our climate.

As our fruits must necessarily be and continue few in number, it becomes imperative that our selection of kinds should be of the best, our mode of treatment the most judicious, and I cannot but remark, that I think the Society has acted wisely in giving prominence to this subject, and in drawing the most particular attention to the pecuniary and other advantages which must accrue from a judicious selection for, and "management and improvement of," our Provincial orchards. In treating this subject, I propose,

First—To give some directions—for the formation and management of an apple orchard;

Secondly—For the renovation of our old, neglected or unprofitable ones;

Thirdly—For the propagation of fruit trees, by ingrafting and budding;

Fourthly—Such further general observations on the selection and management of fruits and orchards, as may seem desirable.

The Formation and Management of an Apple Orchard.

I need not labour to prove that the soil and climate of New Brunswick are adapted to the growth of the apple; the fact that many orchards are found in different localities, which, though planted seventy or even eighty years ago, and since continually exposed to every possible neglect, yet show many of their trees in a bearing state, is of itself sufficient evidence on this point. If our fruit is inferior, the fault is not to be charged either on the soil or climate, but is solely attributable to injudicious selections of kinds, and neglect in management.

There are, indeed, few localities in the Province in which the apple may not be grown advantageously, though it is admitted that in selecting the best position for an orchard, a sound judgment is of great importance, as in the management of it great experience and perseverance will be essential to success.

There are, however, situations in which it would be imprudent to to attempt the cultivation of fruit on a large scale at present;—for instance, the shores of the Bay of Fundy as far inland as the heavy fogs extend—along the margin of rivers on the low intervale lands—and on islands. In such situations it would be difficult, if not impossible, to grow the apple profitably.

There are also unfavorable soils; the worst of these is the light sandy soil resting on a loose open ground; and next to it, a compact tough clay resting on a hard impervious subsoil; on such soils it is useless to attempt to grow the apple.

I have already intimated that a sound judgment is requisite in the selection of the ground for an orchard. A high, bleak hill-top would be obviously objectionable from its exposure, its unfitness for the plough, and its liability to waste by heavy rains; a flat surface, surrounded by higher grounds, as being apt to retain too much water, and more subject to sudden changes of temperature than a better selected site; generally, I may state, ground of moderate elevation should be fixed upon, open to a free circulation of air, yet not to too much exposure, and with a gentle slope, not such as to impede the plough.

The soil and situation which I should prefer to all others, (and such are abundant in the Province,) would be a deep loamy soil, resting on a clay and gravel subsoil, not so hard as to retain the water; the situation to be elevated with a gentle slope dipping to the west or north, for which I will assign my reasons hereafter.

Whatever may be the situation chosen, the ground should be well manured and worked the year preceding that in which the trees are to be set. In the Fall preceding, this ground should be ploughed and subsoiled to the depth of at least fifteen inches; in the Spring, it should have at least twenty waggon loads of manure to the acre, evenly spread on the surface, and deeply ploughed in, and the day before the trees are to be set, it should be well harrowed. Before commencing to set the trees, such a quantity of compost should be carted to the ground as will afford a fair supply to each tree at the time of setting. The compost which I have used of late years, and prefer to all others, is made up of two cart loads of swamp mud, one of decomposed stable manure, and one-twelfth of ashes, well incorporated. The trees should be set in straight lines, at right angles, and at twenty-five feet distance each way. A hole should be dug with the spade eighteen inches deep, and proportioned in size to the length of the roots of the tree to be set, and in all cases sufficiently large to allow the roots to be spread out freely at all sides without obstruction. Previous to setting, the bottom of each hole should be loosened up from four to six inches, and two large shovels full of compost spread over it, and covered with an inch of the mould taken out of the top of the soil. If the hole is too deep for the tree, it may be filled up with equal parts of mould and compost, care being always taken that the roots are not set too deep, and as nearly as may be at the same depth as that at which the tree stood previously to its removal. Before setting, the roots of the tree should be carefully examined, all dead and bruised roots should be cut out, and long straggling roots shortened. In setting, the roots should be extended to their full length, and when, as is sometimes the case, two tiers of roots are found, the upper tier should he held up by the hand until the lower tier is covered with mould, and then spread out and covered in the same way. In filling in the mould, it is essential that it be fine and well sifted in amongst the roots, that no vacant space be left between the mould and the roots. When the hole is filled within two inches of the top, the mould should be gently pressed down by the feet on all sides, then the hole filled with compost to within an inch, and finished with mould. Each tree should be moderately watered to settle the earth among the roots and mulched with long litter, straw, or moss, in such quantities as will retain the moisture at the roots of the tree, but not so much as to harbour mice, &c. Large trees should be staked and tied, but middling sized and small will do without; when tied, straw ropes should be employed to avoid injury to the bark. The trees should be set in straight lines and perpendicularly, otherwise they will interfere with the plough, and the fruit will soon bear them down. If the soil is moist and retentive of moisture, small drains will be required on the lower side of the

slope to carry off surplus water. The after treatment of the tree is the removal of all suckers from the stock, careful pruning in the spring, keeping the head of the tree open and evenly balanced, washing the trunk and removing all insects, more especially the caterpillar.

A very important part of orchard management is, in my opinion, to occupy the vacant space between the trees with a hoed crop, well manured each year, for at least four years. No instruction—no skill will suffice to produce healthy and thrifty trees if they are left immediately to grass and weeds, and suffered to remain so. I attribute much of the discouragement attending the cultivation of the apple in this Province entirely to this circumstance. I repeat, the orchard should be manured and cultivated, the weeds and grass kept down for four years, *then* the trees will be coming into bearing, the fruit becoming an object of pride and profit, and it may be laid down to grass. I am strongly of the opinion that the orchard should at no period be left in grass for more than four years together, when it should be broken up and receive a rotation of cropping. In ploughing an orchard the horses should be harnessed tandem fashion, with leather traces, and the ends of the whiffletrees covered with some soft substance to preserve the bark of the trees from injury.

With these precautions and an experienced ploughman, there will be little damage to the trees. I have adopted the mothod recommended, in an orchard of over two hundred trees, with perfect success; two thirds of the trees thus treated bore fruit the third year—out of the whole I have lost but seven, which were immediately replaced.

I confidently believe that if the orchard so planted continues to be treated as I have recommended, it will be only in its prime at the end of fifty years, and will be valuable at a hundred; and that labour and expense considered, it will, during that time, be five times more remunerative than any other crop from the same extent of ground.

The Renovation of Old, Neglected or Unprofitable Orchards.

It is a lamentable fact that, with very rare exceptions, the old orchards of the Province are rapidly degenerating. I have examined many of them in different parts of the Province, and observed them with some attention for several years past, and I am convinced that the owners of many of them would admit their condition to be less satisfactory than it was years ago. This state of things is the more to be reprehended because it is neither produced by the age of the tree nor the nature of the climate, but the result of sheer neglect or mismanagement. There are orchards in the country which, to my certain knowledge, have been in grass for forty years, and during

that time have not received one shovel full of manure or other stimulants, except what fell from the clouds.

As a general thing, no attention is given to the orchard, the trees are set out, (or stuck out in such a hole as would be dug for a post,) are suffered to run wild and take care of themselves, without manure, pruning, or washing, until the trunk becomes rough-barked and covered with moss, the limbs broken and hanging down, dead branches in every direction, suckers so abundant that the old trees almost forget where they stood—the places of those that were so fortunate as to die never supplied, while those still alive drag out a miserable existence, and seem wishing for death as a relief. These are not exaggerations but facts, and must so continue until the owners of orchards awake to their real interests.

In the process of renovation, I shall recommend, in the first place, the removal of dead and dying trees. This should be done in the Fall. The soil of the orchard should then be deeply ploughed, and as near as possible to the trees without injury to the large roots; the soil should be spaded and turned close to the trees, and all weeds and grass destroyed.

In the Spring, holes should be prepared and young trees set out in the vacant places, in rows, as recommended for the new orchard. All useless and decaying limbs should be pruned out on the remaining trees, and these should be ingrafted with choice fruits.

It is not generally understood that old trees can be ingrafted with success, yet such is the case; the age of the tree, if it be healthy, constituting no objection. The operation should be performed by cleft-grafting, and the better plan is to ingraft the lower tier of limbs the first year, the next tier the second, and the remainder in the third year. Thus in the course of a few years, by pruning and ingrafting, a tree worse than useless may be made valuable. The soil of the old orchard should be manured for three or four years, and occupied with a hoed crop, as recommended for the new one. If this method is carried out, a profitable and interesting orchard will take the place of an unproductive and unsightly one, and the owner will have reason to rejoice over the results of a little capital and labour judiciously expended.

The Propagation of Fruit Trees by Ingrafting and Budding.

Ingrafting consists in inserting the cutting of one tree into the growing stock of another tree, the stock supplies sap for the nourishment of the scion inserted in it, and the cutting or graft, instead of making roots for itself, extends its forming wood downwards through the inner bark into the stock itself. Hence there are two great requisites to successful grafting: first, that the graft be so set on the stock that the sap may flow upwards without interruption;

secondly, that the forming wood may flow downwards freely through the inner bark. To effect these objects it is necessary, first, that the operation should be performed with a sharp knife, that the vessels and pores be cut smoothly, and the two parts be brought into immediate and even contact; secondly, that a considerable and permanent pressure be applied to keep all parts of the cut faces close together; thirdly, that the line of division between the inner bark and the wood should exactly correspond, for if the inner bark of the one sets wholly on the wood of the other, the upward current of the sap through the wood, and back through the bark, is broken, and the graft must consequently fail for want of nourishment; and fourthly, that the wounded parts be excluded from the air, to retain moisture to the graft and exclude the wet until the union is complete. This union will be indicated by the growth of the graft, which usually takes place in four or five weeks.

In grafting, two knives will be required—a keen flat-bladed one, and a stronger knife to cut the stock and for other purposes. It should be remembered that in cleft grafting the jaws of the stock should press with some force against the wedge-shaped side of the graft; a stock one inch in diameter will do this sufficiently.

After having practised many methods of grafting, I prefer, and for the last ten years have confined myself to whip grafting, cleft grafting, and saddle grafting. These, with budding, will be found sufficient and best for all purposes for the apple.

Whip Grafting,

Or, as it is often called, tongue grafting, is best adapted to stocks ranging from one-fourth of an inch to an inch in diameter. The stock to be operated upon should be headed down to about one foot from the ground, and care must be taken that the stock be not broken or split in the operation. The stock is to be sloped off, commencing about two inches from the top, and sloping it at least half way through the stock, and thus procuring a wedge-shape on one side. This requires a smooth, clean cut. The scion (which should be of the last year's growth,) is to be then shortened to six inches in length, and sloped at its lower end to suit the slope of the stock. Then a slit or tongue is to be made in the middle of the sloped stock, downwards, about half an inch, and a similar tongue in the scion, upwards. The tongue, or wedge-like process, forming the upper face of the scion, is then to be inserted downwards into the cleft of the stock. In this operation great care must be taken that the inner barks of both stock and scion are brought to unite closely on one side, and that this union is not displaced in the tying. The tying should be done immediately with a string of soft bass mat or cotton, and the graft covered over with grafting wax or clay, which I shall again refer to.

Cleft Grafting

Is best suited to strong stocks—from an inch upwards—or the re-grafting of old trees, and is performed by cutting or sawing off the old stock to be operated upon; a cleft is then made with a knife or chisel, downwards, nearly in the centre of the stock, (carefully avoiding injury to the pith,) about two inches long. The scion is then prepared at its extremity, for about one and a half inches, in the shape of a wedge, leaving it about the eighth of an inch thick on one side, and pared to an edge on the other. The slit in the end of the stock is then to be opened and the scion inserted in the cleft, with the inner bark of both corresponding. The wedge holding the slit open will then be withdrawn, and the stock close firmly on the scion.

By this method two or more scions can be inserted into one stock, one on either side; and if the stock be large, two or more parallel clefts can be made and a greater number of scions inserted.

Saddle Grafting

Is performed by cutting off the stock in a completely wedge-like form, then splitting the scion up the end, thinning the extremeties of both its inner sides to a tongue shape, placing it over the wedged end of the stock, and embracing the stock on both sides. The inner barks must be carefully joined. This is an excellent method for small trees.

Trees thus operated upon should be covered immediately with wax or clay, and I decidedly prefer the former as best adapted to this climate. The wax I use is composed of one half pound of bees' wax, one pound of tallow, and two pounds of rosin, melted together, strained and well worked by the hand. When used, it should be warmed, strips of strong cotton eighteen inches long, and half an inch in width, soaked in the wax, are to be wound round the graft, then, with a painter's brush, give a coat of wax over all sufficient to exclude air and water. By this means the ligatures will not prevent the the expansion of the tree, and the wax will fall of itself in the course of the season, without any necessity of loosening the bandage, and without that injury to the tree which is apt to follow from the use of bass mat.

When clay is preferred, it is easily prepared thus:—take equal parts of common clay (free from gravel,) and horse drippings, (free from straw and litter,) softening them with water and incorporating well together. If too tough, add more manure. When the graft is set, press a piece of clay, the size of a turkey's egg, well round the grafted part, closing it in on all sides so as to exclude air and water, and leaving it when finished in the shape of an egg. Care must be taken that the clay is not displaced by heavy rains; in such case

it must be immediately replaced and preserved until the scion has united with he stock. In about four weeks after the setting, the scion will begin to grow rapidly, the clay must then be taken off and the bandage loosened—not entirely removed, but tied gently round, sufficiently to prevent the wind breaking off the scion, and to protect it until firmly united.

The proper season for setting grafts in this Province, is from the first to the fifteenth of May, and the true indication is when the leaf buds are so swollen that they begin to break and show the end of the leaf. The best time to take off scions is from the first of March to the middle of April, but they can be taken any time in the winter months. Each parcel should be carefully marked with the name, covered with saw dust or moss, and laid in some moist (not wet,) place until wanted for use.

Budding,

Consists (as far as regards the apple,) in taking an eye or bud from the bark of one tree and transporting it to a different tree. Budded trees are generally longer in attaining the fruit-bearing state than grafted ones. Its advantages are, that it can be performed at a season of more leisure than that proper for grafting, and when grafting has failed on young trees in the spring, they can be budded afterwards the same season.

The proper time to bud in this climate is from the twentieth of August to the middle of September, and may be known by the bark readily parting from the stock. The best stocks to be budded on are those from two to four years old from the seed. It is indispensable to successful budding, that the stock be thrifty, and not over three or four years old. If the stock be aged or diseased, the mucilaginous substance between the bark and wood, which hardens into new wood, and which cements the bud to the stock, will not be found in sufficient quantity. The common way of performing the operation is to select a smooth part of the stock on the north or west side, then make a horizontal cut through the bark to the wood, then from the middle of the horizontal cut make a perpendicular cut downwards about one and a half inches long—the cuts will then resemble the letter T—then immediately cut the bud from the limb with the thinnest possible portion of wood with it, raise the bark of the stock with the handle of the budding knife, and insert the bud under the bark of the stock in close contact with the wood. The bud must be smoothly cut and smoothly and evenly applied; a ligature of soft bass mat should be bound round the bud above and below, but not to cover the eye of the bud.

In about four weeks the ligature should be loosened to prevent its cutting into the wood. In April or the beginning of May in the

spring following, the stock must be cut off to within about two inches of the inserted bud, and all the branches and the buds below the inserted one removed, so that all the nourishment may be thrown into it. When the bud has grown five or six inches, it should be tied to the stump of the stock left above it, to prevent injury from the wind, and in the next following spring the stump of the stock above the bud should be cut off smoothly, slanting to the bud, and covered with grafting wax.

The methods I have thus recommended and described, will be found sufficient for the purposes of propagation, and to continue varieties now known. Propagation from the seed is too well understood to require remark. Ingrafting and budding will be found very simple, for although the written description may appear tedious, one half-hour's oral instruction, with illustration of the manual process, and an hour's practice, will enable any person to perform these operations sufficiently well for private purposes.

General Remarks, &c.

The best size of tree to set out in an orchard, is one of three years' growth from the graft, and the spring is the only sure time to set them. But trees intended to be set out in the spring should be taken up in the Fall, a trench dug, and the roots put in and covered with earth. When trees are imported, this fall removal is of great importance, for it frequently happens that when ordered in the spring, they are so late in arriving; and so far advanced in growth, as to be seriously injured, and sometimes rendered useless; but when taken up in the fall, the spring growth is retarded and the operation of transplanting may be safely delayed until the ground is sufficiently dry.

In importing trees, I prefer the Boston and Portland nurseries, and have certainly been more successful with those obtained from them than with any others, although I have at different times imported from England, Scotland, and New York.

The Boston or Portland trees are sooner and more easily acclimated, and the passage is shorter. Still when dependence can be placed in the variety, trees that have been ingrafted in the Province, and are already inured to the climate, are decidedly to be preferred.

In the selection of fruit trees for an orchard, the object should not so much be the greatest variety as a bountiful supply of good fruit. In more favored countries it is no uncommon thing for those who grow apples for market to have fifty, or even a hundred trees of one sort in their orchards.

It has always surprised me that our agricultural community evince so little interest in the cultivation of the apple. The product is so marketable and profitable—the fruit so generally esteemed—the

capital required to be invested so trifling—that one might reasonably expect a very different feeling to prevail. I repeat what I have already said—there is no difficulty in growing the apple in New Brunswick; in fact it would be difficult to find a farm consisting of one hundred acres or over, which, in some parts of it, is not well adapted to this culture. If the same amount of money which is now expended on imported fruit could be made available in the wise selection of trees and their proper cultivation, we should shortly be possessed of choice fruit in great abundance and of our own growth.

It is true there are many tender and valuable kinds of apple that could scarcely be expected to survive the sudden and violent changes of our climate, and it is not necessary that they should, for if we can grow twenty or thirty choice varieties, (and this we can *at least* do,) every really important purpose is fulfilled; nor should any be discouraged by occasional failures in introducing new varieties—such occurrences are as common in other countries as our own.

It is a common opinion that it is the extreme cold of our winters which destroy so many of our fruit trees; from close and continued observations, I have been led to another conclusion, and believe the fatality to be attributable to the sudden change of temperature in the months of May and June.

I am convinced that no degree of cold felt in New Brunswick will destroy an apple tree in the winter months when the sap is dormant; it is when the sap begins to circulate, the buds to swell, and from thence until the young fruit is set, that I find injuries, and fatal ones, to many kinds, in the sudden transition from a cold and frosty night to a warm sunny morning. After these sudden changes I have frequently found the fruit buds injured and sometimes killed. To avoid, as far as possible, the liability to injury from this cause, I have recommended a north and west exposure for the orchard as that least subject to sudden changes of temperature. It is well known to all gardeners that if the sky be overcast in the morning, after a night of heavy frost, and the weather continues cold, little injury is done, but when the sun comes up suddenly and warm after such a night, great danger is to be apprehended, and the greatest where the trees are most immediately exposed to its direct rays. When the ground declines to the north or west, the air is tempered before the sun's rays strike at all, and when they do strike, it is less directly; I therefore recommend this aspect. I have often observed that apple trees, and other fruit trees and vegetables in such situations have escaped with impunity, when others in other situations have suffered severely.

No care or precaution will enable us to grow *all* the varieties recommended in the catalogues, but this is the less to be regretted as the differences are frequently rather in name than quality, and more curious than useful. Again, many kinds of apples which obtain a

high reputation in one locality, loose all that is valuable in their peculiarity by emigration, even from one to another portion of the same State. An interesting instance of the kind referred to is afforded in the history of the removal of some fruit trees from the United States to England a few years since. Fifty peach trees of the choicest kinds, selected from different States, were sent to England and tested at the great Cheswick Gardens, and two only were found worthy of cultivation. It will require time and patience, and close observation, to ascertain the kinds best suited to our country, and with these there is every reason to believe that many fine varieties may be introduced and acclimated, and become valuable additions to our Provincial orchards.

Great carelessness prevails through the Province as respects the names of fruit and fruit trees; frequently the proper name is wholly lost, and some fancy one, as that of the grower substituted. In this way we find "*Brown's Fancy*," "*Steven's Superb*," "*Murray's Best*," "*Close's Early*," "*Lawrence's Fine*," "*Babbit's Large*," and a host of others whose names afford little useful information.—There is no reason to doubt that some of these kinds have been grown from seed in the Province, and are worthy of extensive cultivation, but the larger portion were unquestionably imported, though their history and name are now forgotten.

It is very desirable that some means should be devised to recover the true names of imported trees, and a suitable name and record preserved of those grown from seed which are considered valuable. To this end I would respectfully suggest to this Society that the growers of apples throughout the Province should be invited to send specimens of their fruit to the proposed Exhibition in October next; that each exhibitor should furnish, with each sample of fruit, information as to name; whether raised from seed, or grafted; whether Provincial or imported; if imported, from whence; whether the tree bears much fruit; whether it bears every year, or only in odd or alternate years; whether the fruit keeps well; if scions can be obtained; and such other information as the grower may think interesting and useful.

With such information, a Committee of this Society could safely report upon the respective merits of the fruits exhibited, and select such for commendation as should be deemed worthy of general cultivation. It would also be enabled either to recover the old and true name, or fix a new one, and afford such information of the character of the tree and fruit, and the place where scions could be obtained, as would be very serviceable.

Something like system and certainty would thus grow up where all is now confusion and risk.

I believe the names of the subjoined may be depended on, and I

confidently recommend the trees and fruit as deserving of extensive propagation:—"*Alsop's Spitzbergen,*" "*Rhode Island Greening,*" "*Gravenstan, Early Bough,*" "*Rambois and Lake Baldwin.*" These are imported fruits, and I might enumerate a great many collected in different parts of the Province, but I should be compelled to employ the fancy names referred to, and might unintentionally mislead those who desire and require correct information.

I now proceed to answer the questions proposed by the Society:—

First—I have an apple orchard of 150 trees; nearly all are grafted; they are of many varieties, but the larger portion of the kinds named and recommended in the Essay. I have a great number of young grafted trees intended for removal and sale, and seedlings innumerable.

Second—I have of plums—the Orleans, Magnum Bonum, Green Gage, Damson, Frost Plum, and the Red Canadian. I cannot as yet (from the result of actual experiment,) determine which of these will best suit this Province; so far, the Damson has been most profitable. All that I have enumerated will stand the climate in favorable circumstances, and are deserving of cultivation. I also have cherries, pears, gooseberries, currants, strawberries, &c. &c. &c.

Third—None but the caterpillar; I pick them off before they leave their web, and so save the tree. The curculis (which is destructive in the United States,) has never troubled me; and I have only heard of one instance of injury from it in the Province. The most effectual way to destroy them is by shaking the tree, catching them in a cloth, and destroying them by hand.

Fourth—My mode of general and particular management has been already fully stated. The treatment of pears, plums and cherries, are so similar to that recommended for the apple, as to save the necessity for remark. I would, however, prefer budding to ingrafting for plums; for cherries, either will do. Pears are entitled to much greater attention than they have yet received from us, and very few are grown. I have three varieties now under cultivation, which so far promise well; but I cannot yet determine their suitability to the climate.

Fifth—I have been making experiments in matters more or less intimately connected with "farm operations" all my life; all of these have been interesting to me, and some, I trust, of service to my country, but the detail would be out of place at the close of a paper already, as I fear, too lengthy.

So far as my experience and observation enable me to speak, the best wash for fruit trees is a strong ash ley, (strong enough to float an egg,) or soft soap. The trunks and large limbs should be well washed with the ley or soap about the first of May in each year. Lime is frequently recommended, but I am decidedly opposed to it, and have known two instances in which fine trees were destroyed by its use.

In conclusion, I beg to draw particular attention to these points in the preceding Essay:—

The adaptability of New Brunswick to the cultivation of the apple.

The necessity to increase the quantity and improve the quality of Provincial fruits;

The care to be observed in taking up, setting out, and in the after treatment of trees in new orchards;

The renovation of old orchards;

The necessity for a correct nomenclature for our fruit trees;

The best soils and sites for orchards;

Grafting and budding—the modes and advantages.

Above all, I invoke the determination in every man to excel in a pursuit which is not only innocent, but laudable and profitable—which holds out the inducement of large profit for a small expenditure; and in addition to individual advantage, promises to increase the wealth and comfort of our country.

This paper has already outgrown my expectation and intention, but I am not sensible that I have swelled it with fanciful speculations or theories, unsupported by experiment and fact. My aim has been to make myself intelligible, and in the plainest form of speech to convey the most useful information on a subject in which I have long been interested, and on the proper understanding and treatment of which I attach great importance in the future fortunes of New Brunswick.

If my Essay should appear tedious, I can only say that I did not wish it to be so, and that, to the best of my ability, I have attempted to condense all that is essential to a proper understanding of the subject in the fewest words.

If this paper should be so fortunate as to be thought worthy of the public eye, I solicit for it a fair and friendly consideration, in the hope that it may be found serviceable to some—in the assurance that it cannot be injurious to any.

Further experiment, greater skill, more learning, and a wider field for observation, may enable others to suggest *better* modes of treatment; but I am convinced no practice, or learning, or observation, can establish that practice to be *bad* which is recommended to myself, and by me to others, on the guarantee of personal and long-tried experiment.

On Nurseries and Orchards.

BY C. L. HATHEWAY.

Every farmer, in commencing agricultural operations upon his own farm, should be sensible of the great value and comfort of a good orchard, and prepare for it, according to the extent and value of his farm, and other local circumstances.

It should be borne in mind that the soil is best, and that trees of most kinds generally thrive best, on the north side of a hill; but it must also be remembered that trees, as well as other vegetation, thrive best when sheltered from the hard winds.

Many have planted their nurseries in a small space, very thickly together, so that a single tree cannot be taken up without great injury to its own roots and the roots of others—a difficulty which I have seen most effectually remedied by planting singly in a larger space three feet apart.

Let the farmer carefully select his plot for the orchard, and plant his seeds in the whole apple or core in the autumn, so as to have the seeds cracked by the frost and to insure their sprouting the ensuing spring; otherwise they may remain dormant until the ensuing year. Let the hills be about the same distance, and planted much in the same manner as corn or potatoes, and let them be hoed and weeded through the summer with care.

From these hills, or from an apple core, more sprouts may arise than will be useful; but about the latter part of July or first of August, all the extra shoots should be pressed down and buried, or covered over with earth, forming a little hill round the most flourishing, which should be left to remain. The same care should be continued annually until it is time, or they are large enough, for transplanting, when they should have a space of twenty feet apart, leaving the original nursery as the first nook of the orchard.

No animals should be allowed to run among the trees until they have acquired sufficient size and strength to resist their attacks, and have their limbs above their reach, and then on some occasions sheep or swine may be pastured among them to advantage.

Fruit trees, and even forest trees, deteriorate the soil and require a vegetable, or other manure, to repair the waste. Thus we see in the native forest, while the trees are small, they stand very thick and close together, but as they grow larger the smaller trees die and rot to supply a manure for the surviving ones, which occupy a larger space in proportion to their age;—and experience proves that the same principle should be attended to with orchards.

Thus it is observable in many orchards where the land has not been regularly manured in some way or other, or where it has once deteriorated by improper tillage, that the old trees wither, and have not sufficient vigor to overcome such accidents as occasionally occur. When orchards are annually mowed until the meadow is very poor and yields a small crop, the trees also wither and bear little fruit. Orchards may be benefitted in various ways—by manuring—by feeding sheep or swine among the trees—by laying round them old vegetable matter of any kind—by placing dead bushes to rot about their roots—rotten wood, saw-dust, flat stones, &c.

Fruit trees have been known to thrive well when the land is too full of rocks and ledges to be cultivated; but they generally thrive best in old gardens where the soil has been highly cultivated—on deep alluvial soils—or such soils as have proved the most congenial to the native oak, rock maple, or butternut. I have long known two apple trees to stand in an old intervale garden, which bear a sufficient quantity of good apples for the use of the family. One of these trees—which I think has not failed in bearing annually for the last fifty years—has produced more than twenty bushels in one year. This garden was annually manured and cultivated with root crops and other vegetables. Other trees upon the same kind of soil, and of greater age, continue to bear fruit.

I have seen abundant proof of the evil effects of neglecting to prune the trees and cultivate the soil, as well with the Damson plum, the English cherry, as with the apple trees. The first symptoms of decay may be the rising of a black knot, or a dry limb near the top, with a thick cluster of shoots springing out of the trunk near the ground—all which require immediate attention, investigation, and care. The remedies to be applied are the pruning knife or fine saw, and then manure, with a covering of the top of the earth near the root of the tree, to prevent the grass or weeds growing near the trunk.

In pruning young trees—which should never be neglected in the nursery—great care should be taken in judging of those limbs which should be taken off, and the stalk that is thickest and strongest should frequently be preferred to the tallest. When the main shoot is very tall and slender, it may be topped off a little in July to prevent more of it being killed by the frost next winter; and when the top divides into two shoots of nearly equal size, separating at an acute angle, one should be cut off, otherwise they are apt to split apart when they become larger, carrying decay and rot to the heart of the tree.

Strong prejudices have prevailed in this Province against the quality of the fruit, and it is imagined by some that our apples can never be equal in size and flavor to those of other countries; but the facts are established that we do raise some large apples, and some of an excellent quality; and the only reason why there are so many of an inferior quality, is the almost total neglect of selecting and ingrafting from superior kinds.

Ingrafting may be done to the small trees in the nursery with excellent effect, and with a certainty of procuring the same kind of fruit as the tree produced from which the scion was taken; and ingrafting should never be neglected in the old orchard, or upon old trees, when we have already ascertained that the fruit is not of the right kind. Ingrafted trees flourish with the same care and management that other trees require.

An apple tree bearing on one side a beautiful yellow fruit, on another side a lively green, with some limbs producing apples of a brilliant red colour, and all of a good flavor, must certainly be more admired than the finest flower-pot which any lady can exhibit, and must be esteemed more truly valuable. Now it is ascertained that this can be done, and farmers who do not lay a foundation for good fruit, neglect an important duty and privilege.

It is true that we may plant the seed of a sweet apple and raise a tree that will produce sour fruit, but when we select a scion from a good tree, it is sure to produce good fruit. I have ingrafted, by way of experiment, several kinds of trees, but none with effect, excepting the apple tree, which leads me to view the kindness of Providence in intending that beautiful tree to be made subservient to the use and taste of man. I have ingrafted at various seasons, but never with effect excepting in April or May. That much inconvenience is experienced in some situations at times, for want of scions from good trees for ingrafting, is certain, but this must be chiefly attributable to a want of care or forethought. The scions may be taken any time in the winter, and kept in earth in the cellar until after the hard frosts of April. There appears to be a peculiar apathy among many farmers of this Province in the cultivation of fruit trees, and many objections are raised, or excuses made, which, when traced to their origin, should not have weight. Some affirm that in other countries—in the United States, and even in Nova Scotia—apple trees flourish in the woods, and on the common or highway, without care. They do so in some instances, but they are generally unproductive or of a bad description. But in Nova Scotia great pains has been taken within the last twenty years to improve the quality of their fruit, and with good effect; and in the United States the cultivation and improvement of fruit trees has long been practised and studied as an important and valuable science.

As an encouragement to the young, the middle-aged, and even the aged, to plant and raise fruit trees, I will just mention the following incident. In the year 1820, in a remote neighbourhood of King's County, an old couple related to me the following incident:—The old man had been eating a very good apple, and declared his intention of planting the seed, while the sapient old wife laughed at his idea, as there appeared to her no probability of his ever eating of the fruit of it. He, however, planted the seed, which produced a tree bearing apples of an excellent flavor, which they thought similar to the original, and of which they had already eaten. In 1844, being in that neighborhood, I again inquired for the old couple, and found they were still living and able to eat apples; and in 1850 it was announced by the Journals of the House of Assembly that the old woman, still living, had obtained a pension as the widow of an old

soldier. It may be seldom that we meet with such instances of longevity and success; but apple trees are known sometimes to bear in five years after planting, and grafts in two years after grafting.

While the bark of the apple tree is piled by the extension of the tree perpendicularly, the plum and cherry tree are each bound by a bark running horizontally round the tree, similar to the bark of the birch; and as trees are frequently injured by the binding of the soil or sod covering their roots, so the plum and cherry trees are more particularly liable than the apple trees to be bound by the bark which generally causes knots, protuberances, distortions, and decay of the trunk. To prevent this, a slight cut with a knife through the outer bark, in a perpendicular line down the north side of the tree from the limbs to the ground, gives immediate relief, and causes a rapid extension of the tree in that part. If cutting should have to be repeated, it had better be performed either on the east or west side, and it is very useful to shave off all the external rough or dead bark from all fruit trees. I feel satisfied that this practice not only prevents the great and general decay of plum trees, but causes them to flourish and grow with increased vigor and abundance.

Fruit trees are not free from the influence of bad seasons or late frosts in May or June; but I am fully convinced, from my own observation and experience, that it is rather owing to prejudice and neglect, than to climate or soil, that our markets are not well supplied with an abundance of good fruit of our own raising. If, in selecting the plot for the orchard, the farmer cannot conveniently select a place of natural shelter from the violence of the winds, let him at first secure his nursery with a board fence, and then plant trees for shelter at the four corners, and at a convenient distance from his plot. In this country more of the manure of the farm goes to enrich ornamental trees, or those occasionally left or planted for shade, than is applied to the benefit of fruit trees. I have often regretted, when I beheld the lounging willows about the farm-yard, with the towering poplars, revelling in luxuriance and feeding on the ammonia and other aeriform gases which escape from a neglected barn-yard, that they were not exchanged for the blossoming fruit trees. How many valuable fruit trees might be flourishing and profitable to the owner in the little waste nooks and corners of the fields and farm-yards. Of all the verdure beautifying the rural scene, I think that which is mingled with blossoms promising fruit, the most beautiful.

Few thriving farmers, who have witnessed the comfort of a good orchard, will allow their fruit trees to be neglected; but in many cases it is evident that the successor of the original planter is too often unacquainted with the care and cultivation necessary to maintain his trees useful and productive.

It is an established principle in all agricultural operations, that

those plants or trees which produce the most palatable, nutritious, and abundant fruit, require from the soil an abundance of fertilizing and stimulating substance; and when these are wanting, little benefit or excellence may be expected. The field that is in a suitable condition to make a rich durable English meadow, is likely to produce good thrifty fruit trees also, if they are planted and cultivated in it.

The above observations are from the practical experience of the author.

On the best ways of using Turnips and other Roots in the Feeding of Stock, together with the best method of Storing and Preserving the same through the Winter.

BY JOHN G. LAYTON, RICHIBUCTO, KENT COUNTY.

To the President of the New Brunswick Society *for the encouragement of Agriculture, Home Manufactures and Commerce.*

Sir,—Your Society having offered a Premium for the best Essay on the preserving and using of Turnips and other Root Crops in the feeding of Stock, I beg to submit the following, in the hope that—should I not be so fortunate as to obtain the Premium—I may at least be able to contribute something which may prove useful to your Society.

As the Premium is for "preserving and using" only, I shall confine myself entirely to these two points, and in doing so, shall state nothing but what I have proved by my own experience and practice.

I make it a rule to begin pulling my turnips the first week in November, and my method of doing this is to place a man at the ends of three drills, grasping the turnip by the top firmly with the left hand, when with the right hand he cuts off the root with one blow, and the turnip from the top at another, with an instrument made with a piece of an old scythe about six inches long, put into a short handle, leaving the turnips on the ground in rows, between which the cart can pass to take them from the ground. I have been thus minute in describing this process, because I have frequently seen persons spending a great deal of valuable time in trimming their turnips with knives, and think they have done very well to get in a cart load in a day. I haul in every night and leave the tops on the ground to be ploughed in. I have a cellar under one half my barn for stowing them, with a door opening to the inside, and made in the following manner:—My barn stands two and a half feet above the surface, under the north-east end of which is the cellar, dug out three and a half feet to

within two feet of the sills all round, thus being six feet deep; there being two feet of *dry tan-bark* and earth between the cellar wall and the sills, it never requires any banking. I haul my turnips right into the barn over the cellar, open a trap door and tip them down, spreading them over the bottom floor two and a half feet thick; at three feet from the bottom I have another floor over which I spread another two and a half feet of turnips, through the top and middle floor I insert a flue one foot square, which must never be closed as long as any frost appears on the inside of it, which is a sure indication that there is steam passing off. Since I have adopted this method of preserving my turnips, I have never lost any by heating, which is the great evil to be overcome in keeping turnips; neither have I sustained as much damage by their growing as when I used to pile them in the house cellar.

I believe the stock best adapted for feeding on turnips is horned cattle, and it should be a standing rule the first winter of their existence to let them have as many as they choose to eat. I find that they never pay better for good feeding than at that age. I also find that cattle reared by myself upon turnips, fat much better than any I can buy, because they will eat plenty of turnips, while those that have not been reared upon them eat them very daintily, and consequently take longer to fatten, and therefore they are more expensive to fatten; the more I can make a beast eat in a given time, the better he will pay when killed for what he has eaten.

My method of using them has been—for calves, to cut small with an old scythe fixed on a bench, with a staple at one end and a handle at the other, taking care always to cut in slices—not in square pieces, which are dangerous. I used first to cut them with a sharp spade, but as my stock and crop increased I adopted the above. As my stock and crop is still increasing, I find that I shall have to get some more expeditious method yet; we are prohibited from importing articles of the kind by the 30 per cent. duty, and yet I am not aware that such things are made in the Province. To each calf I give about half a bushel a day, at two meals—morning and evening; I always let my calves go loose in a pen, having troughs to feed from and racks for hay; they should have turnips as soon as the grass fails.

To my cows I allow the same quantity each while milking, in two feeds—morning and evening, after milking.

For cattle fatting, I cut them up in the same way, and give as many as I find they will eat; should any be left from the last meal, always take them away—they will do for the cows. I feed them three times a day with turnips—in the morning early, in the afternoon, and in the evening—always at the same hour, and at noon with light or damaged grain, and giving always a little hay in racks. In this

manner a large ox, put up in moderate condition, will fatten ready for sale in two months, and will consume, if a good feeder, about two hundred bushels of turnips; to make him extra fat, he will require longer feeding, although he will not after that eat as much. I have not found it pay to make any extraordinary beef, as I have found that the price is generally regulated by what the bad can be bought for.

By using turnips in this way, I consider that I get a return of about three pence per bushel besides the value of the manure. After the reports which have been circulated respecting the high profits to be made by growing and feeding turnips, I fear this estimate will scarcely meet the expectations of some people, nevertheless I think it of more importance that the truth should be told, than that the inexperienced should be allured into their cultivation by the hope of enormous profits, which are sure to prove a failure; but even at that rate I consider them the most profitable green crop that can be grown in this country Estimating the produce at six hundred bushels per acre, (which all who have had experience in their cultivation will admit is a low average,) gives, at 3d. per bushel, £7. The expense of cultivation I estimate in the following manner:—

40 good cart loads of manure, ...	£3	0	0
Ploughing and harrowing, ...	1	0	0
Drilling and sowing, ...	0	10	0
Hoeing, ...	0	10	0
Pulling and hauling in, ...	0	10	0
Seed, 3 or 4 pounds, about	0	5	0
Making a total of	£5	15	0

leaving a profit of 35s. per acre, besides a large quantity of superior manure, which I consider will realize me at least 40s. more, and to which is to be added the increased value of the land, which, considering that it is left in an excellent state for a wheat or barley crop, may fairly be valued at 20s., which altogether shows a profit per acre of £4 15s., equal to the whole value per acre of almost any other crop; and to this, something might be added—the satisfaction a man has in seeing his stock always sleek and thriving. In fact the turnip is the root of all agricultural improvement—without it cattle cannot thrive nor the farmer prosper.

I have said nothing of mangolds, carrots, &c., because I have had but little experience in their cultivation, and believing, as I do, that the Swedish turnip is the best green crop for this country.

I have the honor, &c.

P. M.

On the best ways of using Turnips and other Root Crops in the Feeding of Stock, together with the best modes of Storing and Preserving the same throughout the Winter, founded on practical experience.

BY C. L. HATHEWAY, SUNBURY COUNTY.

The subject of feeding animals with either roots or grain, is one that requires much consideration, aided by experience, and should be influenced by well established principles.

To enumerate all those principles at first, to enable us to come to just conclusions, might be considered more consistent in an Essay of this nature; but, as a practical farmer, I find it more convenient, as well as consistent with ordinary practice, to advert to those principles as occasion may require.

In feeding stock, it should always be borne in mind that unless the stock is improving in condition, (excepting only a team, or a milch cow,) the feeder loses all his feed. Having seen young cattle fed at a great expense through the winter on hay, and turned out in the spring much leaner, and no larger than they were the preceding autumn, I have considered it a case that required a remedy; and I have found no better one than *to use a moderate quantity of turnips or other root crops;* this has resulted in saving a part of the hay ordinarily used, keeping the stock in better condition, continuing their growth through the winter equal to the summer pasture, and increasing the quantity and quality of the manure. The latter result, though generally little thought of, is, or should be, of great importance to the farmer. Although it is universally admitted that the summer manure is the richest, few have duly considered the reason of it, or even availed themselves of the benefits resulting from feeding with roots in the winter.

These considerations have led my attention to the inquiry into "the best ways of using turnips and other root crops in the feeding of stock," and has resulted in my adopting the following practice:— After the hard frost of autumn has rendered the pasture unpalatable to the stock, so as to afford them a scanty sustenance, I pull my turnips and cart them into the barn in dry weather, and cut off the tops and roots at leisure. Calves or young cattle will seldom eat the roots until they have been used for a time to the tops, then they become very fond of and devour them greedily. After feeding out all the tops and small turnips which are thrown aside without cutting, I then commence with the roots.

I lay down in a pile the quantity which I require for feeding in the morning or evening, and with a convenient little axe I chop them up, requiring about two minutes to the bushel, I then shovel up the pieces in a basket and turn them into the manger.

Sheep are not so fond of turnips as neat cattle, and if they are allowed to run over them, they will waste more than they eat. To prevent this waste, the feed should be laid in a trough where the sheep have to put their heads through a stanchion to reach it. In this manner each animal may be fed according to his age or degree. Dry cows or young cattle require but little to effect a great improvement in their condition. Milch cows may have half a bushel each in a day, with plenty of good hay, and they will give as much milk as in a good clover pasture; a greater quantity than half a bushel might affect the taste of the milk or butter, but would lessen the quanty of hay required.

In feeding beef cattle, great care should be taken in regulating their diet by examining their excrements. If the diet proves too laxative, lessening the quantity of roots, and giving more hay, is the necessary remedy. Animals are liable to many of the same diseases which afflict the human race, especially in the winter; and of these diseases, dyspepsia is by far the most common. This disease, instead of lessening, increases the appetite, exhibiting a paucity of excrement, while a greater quantity of dry food is devoured; and this—while it accounts for the deficiency in the quantity of manure, shewing that a great proportion of the aliment passes off by insensible perspiration—shews also the great benefit derived from a judicious use of the root crops.

Cattle feeding partly on turnips, or other roots, may be fed very sparingly with hay, if necessary, or indeed may be made to eat readily of hay of an inferior quality—such as they would hardly winter on—and still remain in good order.

Potatoes are more nutritious than turnips, and also better for general purposes of fattening; but they are generally fed to beef cattle in such a manner that they devour them hastily; and being of a brittle nature, they are rather cracked in small pieces than chewed, and the pieces or lumps thus swallowed are found in the excrements undigested—a total loss to the animal. To prevent this waste, I would prefer—when it can be conveniently done—boiling the potatoes or crushing them, or mixing them with some other substance after crushing. Turnips, being of a tougher or more tenacious texture, are generally better masticated, and therefore become more convenient, cheap, and profitable food for cattle. Some have affirmed that cattle fed well with turnips or potatoes, fat best without water, but I have found it best to indulge animals with their own inclination in that particular. If the ox has a desire for water, I prefer allowing him to go to the trough and drink—if he drinks but little, he is satisfied that he has drank, and, in fattening, much depends on a quiet mind.

I have found the mangold wurtzel beets to produce an immense quantity of tops and roots from a small rich piece of land, and they

prove as palatable to the swine as the ruta baga to the cattle. My method has been to have a plot of them near to the pig yard, and in the months of August and September, or as early as the latter part of July, when the pigs are large enough to require more milk than the dairy affords them, I commence on one side of my beet plot and pull the outside leaves to satisfy the swine; and in ten days after, I may commence at the same side again and find as good gathering as at first. When the tops fail to satisfy the swine, the roots are always acceptable, and they will devour them greedily when they would reject raw potatoes; and the mangold wurtzel I consider equally valuable with the ruta baga for cattle.

Of the various kinds of turnips I have found the ruta baga, or Swedish turnip, by far the most hardy, nutritious, and valuable; but I witnessed their effect in boiling them for swine, and found the animals continued to grow, and their appetite seemed appeased, but they did not fatten.

My experience, in feeding, has led me to the conclusion that beets should be fed raw to cattle and swine. Potatoes should be boiled for both, and turnips should be fed raw to cattle and sheep—all which may be done with great advantage. I have also become fully satisfied that a good piece of land, or farm judiciously managed, will furnish the family will all necessaries—the stock with sufficient provender—and itself with sufficient manure, not only to retain, but to increase its fertility.

QUESTIONS ON MANAGEMENT OF FARMS.

(OF NOT LESS THAN TWENTY-FIVE ACRES.)

The following were the questions required to be answered by competitors for Premiums:—

Soils, &c.

1. Of how much land does your farm consist, and how much wood, waste, and improved land, respectively?

2. What is the nature of your soil and subsoil? Is there limestone in it? What rocks are found in it?

3. What do you consider the best mode of improving the different kinds of soil on your farm? Of clay soil,—if you have it—of sandy soil, and of gravelly soil? Answer separately.

4. What depth do you plough? What effect has deep ploughing had on various soils?

5. Have you made any experiments to test the difference in a succeeding crop, between shallow, common, or deep ploughing?

6. Have you used the subsoil plough, and what have been its effects on different soils and crops?

7. What trees and plants were indigenous to your soil? Give the name of each.

Manures.

8. How many loads of manure (30 bushels per load,) do you usually apply per acre? How do you manage your manure? Is it kept under cover; or are there cellars under your barns or stables, for receiving it?

9. What are your means, and what your methods of making and collecting manure? How many loads of manure do you manufacture annually? How many do you apply?

10. How is your manure applied; whether in its long or green state, or in compost? For what crops, or under what circumstances do you prefer using it, either in a fresh or rotten state?

11. Could you not cheaply, essentially increase your supply of manure by a little extra labor?

12. Have you used lime, plaster, guano, salt, or any substance not in common use as manure? In what manner were they used, and with what results?

Tillage Crops.

13. How many acres of land do you till, and with what crops are they occupied, and how much of each crop?

14. What is the amount of seed planted or sown for each crop, the time of sowing, the mode of cultivating and of harvesting, and the product per acre? Have any insects been found injurious to your crops? If so, describe them and the remedies adopted.

15. What kind and quantity of manure do you prefer for each; and at what times and in what manner do you apply it?

16. How deep do you have manure covered in the earth, for different crops and different soils?

17. Have your potatoes been affected with any particular defect or disease, and have you been able to discover any clearly-proved cause for it, or found any remedy?

Grass Lands, &c.

18. What kind of grasses do you use? How much seed of clover, or the various kinds of grass do you sow to the acre? At what season of the year do you sow, and what is the manner of seeding?

19. How many acres do you mow for hay, and what is the average product? At what stage do you cut grass, and what is your mode of making hay?

20. Is any of your mowing land unsuitable for the plough, and what is your mode of managing such land?

21. Have you practised irrigating or watering meadows or other lands, and with what effect? What is your particular mode of irrigation, and how is it performed?

22. Have you reclaimed any low, bog or peat lands? What was the mode pursued, the crops raised, and what the success? What length of drains have you on the farm, and how are they constructed?

Domestic Animals.

23. How many oxen, cows, young cattle and horses do you keep, and of what breeds are they?

24. Have you made any experiments to show the relative value of different breeds of cattle or other animals for particular purposes, and with what results?

25. What do you consider the best and cheapest manner of wintering your cattle; as to feed, watering and shelter?

26. How much butter and cheese do you make annually, from what number of cows, and what is your mode of manufacture?

27. How many sheep do you keep? Of what breed or breeds are they? How much do they yield per fleece, and what price does the wool bring? How many of your sheep usually produce lambs, and what number of lambs are annually reared? How much will your sheep or lambs sell at per head to the butcher?

28. What do you consider the best and cheapest manner of wintering your sheep, as to food, watering and shelter? How many in proportion to your flock (if any) do you lose during the winter? What difference (if any) between fine and coarse wooled sheep in these respects?

29. How many swine do you keep; of what breed are they; how do you feed them; at what age do you kill them; and what do they weigh when dressed?

30. What experiments have you made to show the relative value of potatoes, turnips and other root crops, compared with Indian corn, or other grain, for feeding animals, for fattening, or for milk?

Fruit.

31. What is the number of your apple trees? Are they of natural or grafted fruits, and chiefly of what varieties?

32. What number and kind of fruit trees, exclusive of apples, have you, and what are among the best of each kind?

33. What insects have attacked your trees, and what method do you use to prevent their attacks?

34. What is your general management of fruit trees?

35. What other experiments or farm operations have produced interesting or valuable results?

Fences, Buildings, &c.

36. What is the number, size and general mode of construction of your farm buildings; and their uses?

37. What kind of fences do you construct? What is the amount and length of each kind? And their cost and condition?

38. To what extent are your various farming operations guided by accurate weighing and measuring? And to what degree of minuteness are they registered by daily accounts.

39. Do you keep regular farm accounts? Can you state the annual expense in improving your farm, and the income from it, with such precision that you can at the end of the year, strike an accurate balance of the debt and credit? Would not this practise conduce very much to close observation, careful farming, and in the end much improve your system, as well as better your fortune.

N. B.—This List of Questions was published in the Royal Gazette of April 16th and 23rd, and 500 copies of it in a separate form were likewise circulated about the same time.—See Society's Reports for 1851, *p.* 137.

April 10, 1851. J. R.

ANSWERS TO QUESTIONS.

BY GEORGE P. PETERS, M. D., LANCASTER, ST. JOHN COUNTY.

No. 1. My farm consists of 150 acres, 36 have been under the plough, the remainder is fit for cultivation when stumped. I have no woodland.

2. The upland is a light gravelly loam; the side hill loamy, with a clay bottom, and the valley chiefly a deep loam with clay bottom; but a portion of it clay, with a mixture of fine sand, and a few acres of what may be called marsh, which has been formed by the wash of the hills for ages, and is a deep bed of rich vegetable and earthy matter, (and, as it is irrigated every spring and autumn,) capable of producing grass for ages without the aid of any manure. There is no limestone on the farm; the only rocks are about four acres of granite boulders which I have found of great benefit in enabling me to build cellar walls under my barns, (which are situated on a side hill,) and also under my house.

3. The best mode of improving clay soil, is to drain it, plough it well in the fall, and lime it. I plough mine into *nine* feet ridges, and apply *four* hogsheads of lime, fresh slacked, to the acre, immediately after ploughing;—this is sufficient for the first crop (oats). Open drains are bad—they are always filling up, and likewise interfere with ploughing, &c. I have therefore piped a portion of my land with condemned hacmatac railroad sleepers, (which cost about four pence each,) laid about three feet deep, and I find them answer well; but I believe no drain is so cheap as one made of stones as big as your fist, or even larger, when they can be conveniently procured. I have tried them on a limited scale, and am so satisfied of their efficiency that hereafter I shall use them alone. I may add that I have also tried pipes and soles, which seem to answer well, but the stone I find the cheapest. I dig my drains three feet deep, and about nine or ten inches wide at the bottom, and put in a foot of stones, then cover the stones with small spruce boughs and plough the earth in to fill up. The above method will procure a good crop of oats the first year, after which the land will be in a condition to be cultivated properly. The higher portion of my farm, which is a light gravelly loam, I plough about six inches deep, and manure with a compost made of two parts of black mud and one of manure, thoroughly rotted, and from this I get good crops. I believe this compost is better than manure alone; it lasts longer in the ground, and appears to supply the vegetable matter of which the soil is deficient.

4. On my light soil I plough six inches deep; on the lower portions, with the clay bottom, as deep as a pair of horses can turn it. I was led to adopt this plan from observing that when I had sunk my drains for piping in the fall, and had thrown up the clay which remained by the sides of the drains through the winter, and was sown with oats the next spring, that the best oats grew upon the top of the clay, or wherever the clay got scattered upon the surrounding ground.

5. None. I always plough as deep as I can, where I have a clay bottom below.

6. I have not, but mean to do so.

7. The trees were nearly all poached off, or burnt off, when I purchased my farm, but from the stumps it is evident that large cedars grew upon the low land, and hacmatac, yellow birch, black spruce, fir, and some white maple, with large alders, upon the other portions.

8. I never apply less than thirty one-horse loads of manure to the acre—generally forty, but this depends upon the crop; for carrots I apply most, potatoes next, Swedes next, and Hybrids and yellow Aberdeens least. I manufacture my manure in the cellars under my barns. I have a cellar under my barns seventy feet long, thirty feet wide, and eleven feet high. Upon every six inches of manure, evenly

spread, I put one foot of black mud; and although the latter is frequently put in through the hatches in the floor in a frozen state, it speedily thaws, undergoes fermentation, and in the spring comes out a uniform mass, and cuts out like old cheese. My cows and horses stand above these cellars, and all the liquid manure goes through the floors by openings arranged for the purpose, and is received in gutters which convey it to barrels, from which it is regularly distributed over the manure. All the slops from the house are likewise collected and hauled to the barn, and, through the traps spread over the contents of the cellar.

9. By the above means I last year put upon the land upwards of six hundred loads of manure, and as the hauling was all down hill, and my horses strong, they were of the largest description.

10. From what I have stated above, of course all my manure is applied in a thoroughly decomposed state. When used for potatoes, I spread it upon the ground, and plough it in, dropping the seed in the furrow every third furrow. This is an expeditious mode of planting, and potatoes raised in this way are best for eating. After they are ploughed in, I roll the ground and harrow it, and when they are well through the ground I run a drill-harrow between them frequently, to keep the ground loose. As soon as they are high enough, I mould them with Wilkie's double mould-board plough, then in a little while give them a few scrapes more of the drill-harrow, after which I give them the second moulding with the double mould-board, which does the work so effectually that they require little else before they are ploughed out. No man with a hoe can put earth up to potato vines so evenly and beautifully as a good double mould-board will do it. I can, with four men, including the ploughman, put in an acre a day with ease, and with the double mould-board the ploughman and a pair of horses can mould three or four acres easily in the same time, so that the saving of labour is immense.

11. I could not in any way increase my supply of manure, as I even use all the weeds about the farm, which I haul to the barn and convert into manure. I am at present engaged in hauling ashes from a steam mill, the refuse stuff from which has been burnt for a number of years, and a large pile of ashes has accumulated. I expect to get about three hundred loads, for which I pay ten pence a load, and from the experience I have already had of its benefits as a top-dressing for grass lands, I look for the best results.

12. I always use lime to new land upon breaking it up, and also upon wheat land after sowing, at the rate of four hogsheads to the acre, and with decided benefit. Plaster and common salt I apply to the manure as I manufacture it in my cellars. Guano I use to my turnips, at the rate of three cwt. to the acre, on top of the manure in the drills. This year I intend to use ashes instead, at the rate of eighty bushels to the acre.

Tillage Crops.

13. Last year I had about two acres in wheat, six in oats, two in buckwheat, one in barley, three and a half in potatoes, one in carrots, three in turnips, and about twelve in grass.

14. Of wheat I sow one and a half bushels to the acre, of oats three, buckwheat one, barley one and a half; potatoes I cut with a portion of the rose or seed end in each cut, placed one foot apart, and thirty inches between the drills; carrots two lbs., turnips four lbs.

Wheat I sow upon potato or turnip land. I first soak it for half an hour in a pickle made of common salt dissolved in cold water, strong enough to float a raw potato, stirring it well. This brings any foul seed and light wheat to the surface, so that they can be skimmed off. I then pour off the pickle and dry the wheat with quick lime on the barn floor; by this means every grain of wheat is completely coated with lime. It is then sown immediately, (although it may be allowed to remain days without injury,) and harrowed in with two scrapes of the harrows. I sow as early as I can after the frost is out of the ground, and the land dry enough for the harrows. After the wheat greens the ground, I sow one and a half cwt. of guano to the acre, in wet weather, upon the surface. The yield was a little over twenty bushels to the acre, and the weight of each bushel 64 lbs. In ploughing, harrowing, and rolling land, for either wheat or barley, I would recommend that the horses be fed upon crushed oats or Indian corn well soaked, as unless this precaution is taken the horses are apt to pass the oats they have been fed upon (and which they frequently devour ravenously,) in a whole state, and so cause oats to appear in both the wheat and the barley crop.

Oats I sow as soon as the wheat is in; but as I feed all mine chopped up with the straw without thrashing, I cannot state the yield per acre.

Buckwheat was with me last year a failure, and I will never sow another grain of it. No skill can avail with so uncertain a crop.

Barley. "The Chevalier" is sown after oats upon potato land, and yields well. Mine was nearly as good as the best we can import.

Potatoes. I have already described my mode of growing potatoes. Last year they were all sound. The yield, on account of the drought, was scarcely 200 bushels to the acre. I cultivate the Cups for keeping over winter, and the early blues and Scotch earlies for immediate use. The latter of these are a valuable variety; they do not blossom, but come to maturity very early. They are better than the early blues for eating, and are fit for market when potatoes will sell for 10s. a bushel. I did not get less than 7s. 6d. for any of mine.

Carrots require a deep soil and deep ploughing. I run the drills about twenty-four inches apart, with the double mould-board plough,

and put at least forty loads of well rotted compost out of my cellars between the drills, which I then again split with the double mould-board, covering the manure as deeply and making the drills as high as possible. I then pass a light roller over the tops of the drills, or flatten the tops with shovels, and sow the seed with a drill harrow. I rub the seed between the hands till all the beard is off them, soak it in a bag in nearly milk warm water, for 24 hours, and spread it in a box where I allow it to remian for three or four days in an airy place, stirring it occasionally till nearly dry. I then mix it with sifted hardwood ashes, and rub it through the hands again till the seed is rendered fit to pass through the seed barrow. I have found the best effects from sowing buckwheat on the carrot land, after ploughing and before drilling; it comes up rapidly, shelters the young carrots, and prevents other weeds from springing up. The buckwheat itself is an easy weed to pull, and I have always found the best and strongest young carrots under the shelter of the buckwheat leaf. The drill harrow must be frequently run between the drills to press the weeds down and stir the earth; and after the weeds are conquered, the double mould-board plough must be passed between the drills to put the earth well up, and make a clear passage for any surface water. You may generally calculate upon four hundred bushels of carrots to the acre by the above treatment, and in good seasons even more. Of course I mean the white Belgian, which is the best for feeding; the other kinds, such as "early horn" and "long orange," will likewise succeed, but do not yield so well.

Turnips I put in stubble land, broken up the year previously. The best kind are the purple-topped Swedish. I treat the land as I do for carrots, but do not put quite so much manure, but on top of the manure in the drills I put about three cwt. of guano to the acre. I sow four pounds of seed to the acre, with the seed barrow. The guano gives them such a start that the flea never troubles them;—I have never had to sow twice. There should be an interval of five days between the sowing of each acre of turnips, otherwise they all come to require thinning and dressing at the same time, and as sufficient hands cannot always be procured to attend to them, a large portion of the crop will suffer. I sow Swedes any time between the 1st and 10th of June, and always just before rain—never during a drought; yellow Aberdeens, and Dale's Hybrids, any time between the 20th and 28th of June. The latter grow more rapidly than Swedes, yield well, and do for feeding till new year. In thinning turnips, I use as a hoe a ship's scraper, with a long handle; it is of a triangular shape, and about five and a half inches long on each side. It is the cheapest and best hoe for the purpose that can be used; there is seldom any necessity for stooping, as from the shape of the hoe you can go as close to any plant you wish to remain as you can

with your finger, without injuring it; and you always have a corner of the hoe ready to hook out a weed without turning it in your hand. I thin first to the width of this hoe, and sometimes afterwards strike out with the same hoe each intermediate plant. This plan will make sufficient allowance for any injury the grubs may be likely to do to the crop. Last year was the worst one for turnips I have ever known; the crop was not more than half an average—I had about 1000 bushels; I would have had in ordinary seasons 2000.

15. I have already stated the kind and quantity of manure used, and the manner of applying it.

16. Already answered.

17. No disease.

Grass Seeds.

18. Timothy and clover;—a peck of the former and four pounds of the latter to each acre. I sow immediately after harrowing in wheat, oats, or barley, and roll the ground across the ridges, which covers the seed completely. I mowed last year only twelve acres—this year I shall mow twenty-two. A large portion of the land which I have at present in grass is not the best adapted for it. The yield was a little over two tons to the acre. I cut grass when in the second flower, and, when the weather is fine, all that is mowed before eleven o'clock is shaken out, turned, and put in cocks that night. I never disturb the cocks the next day—I prefer curing it in cock. On the second or third day, after the dew is off, I shake out the cocks, and put it up again in large cocks till the day following, when, if the day is fine, I merely upset the cocks, turning the bottom of them to the sun for a few hours, and haul them in. I put about one bushel of salt to eight tons of hay, as I stow it away in the barn.

20. None.

21. My marsh is irrigated two or three times a year, owing to its situation.

22. Answered.

Domestic Animals.

23. Six cows, four horses, and two colts. The cows are a mixed breed of Durham and Angus, crossed with the cows of the country. One of the colts is thorough bred, the other three quarters.

24. None.

25. To chop, with a straw-cutter, all the feed, such as hay and straw for the cows, and the oats and straw, together, for the horses. These I put into large tubs, and with one bushel of horsefeed for six cows, and a little salt, moisten the whole with water, then pound it well and allow it to remain a few hours before feeding. In this way there is no waste, as everything is eaten, and the cattle are always in the best condition.

26. As I live near a town, I find it most profitable to sell the milk, instead of making cheese and butter.

27. Nineteen—Southdown and Leicestershire. The fleeces weigh from five to seven and a half pounds. I have all the wool manufactured into cloth. All my ewes produce lambs; nine out of ten of them have twins. I rear all the lambs, as I wish to get a large flock. I don't sell a lamb to a butcher, but I readily get six dollars each for the ram lambs, when six months old, from the farmers.

28. I have a shed for my sheep, where they can go in and out at pleasure, and which perfectly protects them from the weather. I feed them on turnips and hay. Water they do not require when they eat plenty of turnips. I never lose any. The only sheep I have killed, fed as above, weighed twenty-seven and a half pounds per quarter.

29. Four sows; one a Berkshire, the other two Newbury Whites. I killed two Newbury Whites in November, eighteen months old; they weighed nearly four cwt. each. I feed my pigs upon potatoes, oatmeal, spare milk, and slops. The oatmeal I obtain at a very cheap rate from the stores which are left on hand on board emigrant ships, (from 6s. to 8s. per cwt.)

30. None.

Fruit.

31. Thirteen apple trees—grafted. They do not bear yet, but will this year.

32. None.

33. None.

34. Keep the ground clean round them, and manure them well with old dung, and occasionally lime and ashes.

Fences, Buildings, &c.

35. Two barns. One 30 by 40—14 feet posts, and 22 feet rafters, 7 by 5. The other 26 by 30—12 feet posts—and corresponding pitch of roof and scantling to first barn. Cellars under the whole of both from ten to eleven feet high—the walls built substantially of stone, 18 inches thick, and pointed with mortar. The front of the cellar is of wood, board d and shingled, with large and small doors, and four windows—twelve lights each—of 8 by 10 glass. They are perfectly frost-proof.

37. I use various kinds of fences. The best and cheapest for the road-side, in my locality, I find can be made of slats six feet long, placed perpendicularly, and each slat picketed. They are nailed to two strips of scantling, spiked and let into cedar posts, or hacmatac sleepers, nine feet apart. This is a fence not easily climed, and one

that will keep out any description of animal running on the road. It costs abour 15s. for every six rods. Cedar is scarce in my neighborhood. I use spruce rails for dividing off the farm into lots, which cost 7s. a hundred, delivered on the ground.

38. I know by measuring my carts the quantity of roots I raise; and the quantity of grain is ascertained as it is taken from the fanning mill. The quantity fed is also measured.

39. I do not keep regular farm accounts; but I can state the annual expense of improving my farm and the income from it, as I note down every penny expended for wages, implements, seeds, buildings, &c., and likewise the amounts received from the produce of the farm. I do not take into account any thing consumed upon the farm that is raised on it.

AGRICOLA.

ANSWERS TO QUESTIONS.

BY ROBERT JARDINE, SAINT JOHN COUNTY.

In accordance with the request made by the "*New Brunswick Society for the encouragement of Agriculture, Home Manufactures and Commerce,*" I beg to submit the following answers to their queries. It does not occur to me how a certificate or other proof could be furnished at this time without interfering with the secrecy which it is necessary to maintain; but both will be ready if required.

1. My farm contains one hundred acres, of which sixty are improved, and forty in wood; but the latter is suitable for pasture, having roads and glades cut through it.

2. The soil is generally a clay loam, over a compact yellow clay subsoil. There is no limestone in it. The only rock is a blue slate, underlying the subsoil at depths varying from one foot to about ten feet.

3. My farm was, eight years ago, with the exception of about five acres, covered with a dense second growth of spruce, fir, and white birch.

The first year I cut half a ton of hay, and pastured a cow and a horse. The past year I pastured thirty sheep, three horses, four cows, and eight young catttle, and cut seventy tons of hay.

I commenced by clearing out every thing from about a seven acre field, with a yoke of oxen, or with horses, ploughed the land about nine inches deep, drained the wet or boggy places with open drains, or with closed drains, four feet deep, and laid with tiles or broken

stones, as suitable, and sowed oats the first year. The next, after deep ploughing in the fall, a cross-ploughing in the spring, and twice grubbing and harrowing, the land was put in green crop, potatoes, turnips and carrots, as suited.

4. Deeply ploughed in the fall, covering in the turnip tops, and sown in spring with oats, barley, or wheat, and timothy and clover. In hay two years, pasture two years, and back to begin the same rotation. A similar course followed with a new field each year.

5. I have always ploughed deep.

6. I use an iron grubber, which stirs the soil to the depth of ten to twelve inches. I cannot speak comparatively on this point from my own experience.

7. The spruce, fir, and white birch, with an occasional mountain ash and poplar, all second growth. Old stumps remained of spruce, pine and yellow birch. White clover and sorrel seem to be the only indigenous plants.

8. I generally apply twenty single loads, of about twenty bushels per acre. I have a hollow scooped out in the clay, behind the barns, for the manure, and covered with a shed, or lean-to, of boards, battened.

9. Behind the horses and cows, there is a grooved plank, which conveys the urine to a tank outside the barn. The tank is simply an old oil cask, sunk in the clay, with a cover. The manure is thrown out under the shed. About once a fortnight during the summer, the manure is spread under the shed, in alternate layers with peat or dry clay, mixing the horse and cow manure together, and throwing over the whole the contents of the tank. Occasionally in early spring, during damp weather, and after the hay is cut in the fall, the contents of the tank, mixed with three parts of rain water, is spread on the adjoining grass lands, with a very good effect. I manufacture about two hundred loads of manure annually.

10. I generally spread the manure, made as above, during summer, on the land intended for carrots, in the fall, and plough it under. The manure made in winter, is carted to the head of the field intended for potatoes and turnips, early in spring, before the frost is out of the ground. It is turned twice before being used, and mixed partially, and covered with the soil adjoining. In no circumstances would I use it in a fresh or green state. For potatoes it need not be much rotted. For turnips, well rotted, and for carrots, thoroughly rotted.

11. I have adopted the method I consider the best, and do not know how I could improve on it.

12. I have used lime and plaster, spread on grass land, and on turnip land, but did not perceive any effects. I have used bone dust

on pasture lands with marked effects—the pasture being richer and better than that not dressed. I used about twenty bushels per acre, sown broadcast. I apply, in addition to the twenty loads of manure, two cwt. of guano, and ten bushels of bones, in the drill, to turnips and carrots, per acre. As compared with neighbouring crops, treated with manure alone, my turnips braid quicker, escape the fly, and yield better on account of the extra manure.

13. Having begun on new land, I am about the end of the rotation I have prescribed for myself with the first and second year's clearing; but wishing to go over the whole farm before I returned on the first fields, I have more in grass now than I intended. Last season, in addition to the forty acres of woodland pasture, which maintained thirty sheep and three young cattle, I had fifteen acres in pasture, thirty in hay, eight in oats, one in buckwheat, one in wheat, two in potatoes, two in turnips, and one in carrots. The produce was not accurately weighed or measured. I can only give the quantities as estimated in the barn and cellar:—

Thirty acres hay, estimated produce—seventy tons.

Eight acres oats; cannot tell the produce, as the oats are being thrashed as used.

One acre buckwheat; was struck with rust or blighted by frost or lightning; yield about fifteen bushels.

One acre wheat; produce about twenty bushels.

Two acres potatoes; about three hundred bushels.

Two acres turnips; about one thousand bushels.

One acre carrots; about six hundred bushels.

14. The quantity of seed for oats, is three bushels per acre; of wheat, two bushels; of meadow, a peck of timothy, and three pounds of red clover; of turnips and carrots, three pounds per acre. I sow oats and wheat as early as the ground affords a good seed bed, say from 10th to 25th April. Have sown as early as the former, and not later than the latter, and have always had good crops. Sow carrots as early in May as the ground can be got in a good state, say from 15th to 20th. Turnips from 1st to 15th June. The only insect I have been troubled with is the turnip fly, and I have never lost a crop by it, although I have had to sow twice occasionally. The remedy most effectual with me has been thick sowing and the use of guano, which hastens the growth of the plant at the time the insect is most destructive.

15. See 12.

16. I drill the land for potatoes, turnips, and carrots, in drills about nine to twelve inches deep, and twenty-seven inches apart. Spread the manure in the bottom, then sow the guano and bone dust on top of the manure, and split the drill over it. Having only one kind of

soil, and applying the manure only to green crop, I have no farther experience.

17. My potatoes have been affected by the prevailing disease for the last seven years. I have not been able to discover any cause for it, and know of no remedy.

18. See 13 and 14.

19. The estimated produce of hay is from two to three tons per acre. I commence to cut generally in the last week of July, when the timothy begins to be in the second blossom, and about half the red clover blossoms begin to fade. What is cut one day, I spread the next, and rake up and put in small cocks in the evening. If the weather is favorable, spread it out next morning, and put it into large cocks in the evening. After thus standing a few days, it is spread in the morning and put into small stacks, to remain until all the hay is made, when the whole hay is carted to the barn. This mode is rendered necessary from the barns being at a considerable distance from the fields.

20. I have drained, or intend to drain all my land.

21. Have no opportunity for irrigation.

22. A considerable portion of my land is low boggy valleys, between rocky heights. These I have reclaimed by running a deep main drain down the lowest level, with branch drains into it—open or covered, as suited. I have persued the same rotation with this description of lands as with other portions of the farm, and found that valleys were much more productive than upland, although costing more to clear. I have let the relaiming of such land by contract at from five to fifteen pounds per acre, and have had a produce of three tons of hay per acre for three years running, without manure.

22. I have drained about twenty acres with closed drains, four feet deep, and averaging twenty-five feet apart. I dig the drains as narrow as a man can work in them. The first three years I put in at the bottom two stones on edge and one on top, and filled in about a foot of small stones, then put on an inverted sod or a layer of fir boughs, and covered up. Within the last two years I have used tiles, laying them at the bottom of the cut, in a space cut for them, and filling in the clay closely upon them. I find both kinds to dry the land equally well, the difference in favor of the tiles being, that in spring the water is apt to rush down to the stone drains and fill them up with silt or gravel, which does not happen with the tiles.

23. I keep four cows, three horses, and generally eight young cattle and a bull. They are all pure bred Ayrshire.

24. I have had native cattle side by side with my own summer and winter, and find that the breed thrive better, and produce more on the same feed [illegible]

25. My barns are warm and sheltered, so much so that the manure does not generally freeze in them. I have water brought into the barn in pipes, and do not allow the cattle to go out from the 1st of November to the 1st of May, with the exception of an hour or two for exercise in very fine weather. I give the cattle water in the stalls twice a day—at ten o'clock and at five. In winter, I boil turnips, light oats and barley, with cut hay, in a fifty gallon boiler, twice a day. Of this, the sheep get an allowance at mid-day, and each horse, cow, and young animal, gets a pailful at night and another in the morning. From November till February, I generally feed straw, and after that hay. On the above my whole stock is kept growing and thriving, and is always in good condition.

26. I make only what butter and cheese are required in the family, with the exception of selling about seven pounds of butter per week, during summer. Having a pure bred stock, I rear all the calves, and calculate on being paid by the better price they bring, for giving them most of their mother's milk. I obtain for calves, six months old, from £5 to £7 10s.; for two year old bulls, £20, and for heifers, £15.

27. I keep twenty ewes and a ram, of the pure Leicester breed. The fleece weighs from four to seven pounds, and the wool sells at 1s. 3d. per pound. Nine-tenths of the sheep have lambs, and as one half them have two or three, the casualties are so met that I rear about the same number of lambs as I have ewes. I do not sell any sheep or lambs to the butcher, but sell the lambs for breeding, at from 20s. to 25s. each, in the fall. I have always a demand for more than I can supply.

28. See above as to wintering cattle. The sheep, in addition to about thirty gallons of boiled turnips and oats per day, get what they can consume of fine hay. I have never lost a sheep.

29. I only keep one or two pigs to eat the slops.

30. See above.

31 to 35. Locality and climate not suitable.

36. I have two barns—one 26 by 16, and the other 40 by 60. Against each there is a lean-to or shed, which not only covers the manure but shelters the cattle. In the large barn there is a root cellar occupying one quarter of its lower floor. This is boarded round with double boards, a foot apart, the space being filled with sawdust. Above and around this cellar, in winter, the hay is closely packed. In this cellar turnips are packed in excellent order—about as much frost penetrating as to make the turnips adhere slightly, without freezing them hard. Next to the cellar, on the south side of the barn, is the byre for the cattle, and over it is a grain room. The cattle are fed from the inside of the barn. Between the two barns,

is a separate erection, covering the boiler, which is one of the patent furnaces. Against one of the barns is a lean-to, or half open shed, in which the sheep are kept, the hay being filled into racks from the barn.

37. My fences are all of cedar rails, straight on end, with two "uprights," to support them, bound at head and foot. The cedar cost about 15s. per 100, and the "uprights" about 1s. 6d. each. My fences are all in good condition.

38. The seed and manures are accurately weighed or measured; the produce is only guessed at, unless when sold. It would serve no purpose, commensurate with the cost and trouble, to weigh or measure what is consumed on the farm.

39. I do not keep exact farm accounts, but from other circumstances I am enabled to get at an accurate balance of debit and credit. With reference to 38, I know what number of bushels my carts will hold, and keep an account of the number of cart loads of roots, &c., and estimate hay and grain from the bulk of stacks, and number of loads.

I am your obedient servant,

J.

ANSWERS TO QUESTIONS.

BY C. L. HATHEWAY, SUNBURY COUNTY.

1. My farm (like about one hundred others in the same grant,) consists of 500 acres, 35 improved, and the remainder wood and waste lands.

2. The soil near the river is a rich sandy alluvial on a clayey subsoil. At the distance of half a mile back from the river, there is a thin vegetable soil on a clay subsoil, which continues, with little variation, for three miles; then a common gravelly, stony upland for about three and a half miles, completes my compliment of 500 acres. There are no limestones or valuable rocks in it.

3. I find the best method of improving clay is to plough it in narrow ridges, so as to prevent any standing water, and after a rotation cropping and careful manuring, to lay it down with grass seeds; if for meadow, the less it is pastured the better. Sandy soil is more easily worked than any other, and more active in forwarding the crop, and better for sustaining vegetation in a drought, but requires more manure. Gravelly soils are sometimes sandy, and sometimes

clayey, and should be treated accordingly. If the gravel is coarse, I should prefer leaving it for woodland.

4. I generally plough from seven to nine inches deep. Deep ploughing makes room for a superabundance of water to escape from the surface, and also makes room for the roots of plants, which I have found to extend to a greater length than the shoots or stalks; but deep ploughing should be a progressive work. A little of the subsoil annually raised to the top, although at first inert, soon becomes active through atmospheric influence, and the deep wrought soils are always most productive and make the most durable meadows.

5. I commenced making a garden on a brick clay formation. The first year my carrots and other roots grew short like small turnips, with tap roots. The second year, by deep spading, my roots became exceedingly large and long.

6. I have never used a subsoil plough.

7. The indigenous trees of my soil were the maple, birch, elm, ash, red oak, butternut, bass wood; and further back from the river, with the foregoing, a mixture of fir, cedar, pine and larch, or hacmatac and beech.

Manures.

8. I generally apply about thirty loads of manure to an acre of corn or potatoes. I mix all the vegetable and fossil matter that I can conveniently collect, with stable manure, and carefully supply cattle and swine with litter for that purpose. After planting, I have the manure that is left scraped in piles for composting, and covered with the lighter kind of straw. In the autumn it is hauled out and piled in the field where it is intended to be used, and carefully covered with the clay or soil of the field, to shield it from loss by exposure, and to absorb the gases that would otherwise escape during the winter. Residing on the intervale, our barns cannot be conveniently supplied with cellars, or such accommodation as the upland would afford. When I resided on the upland, I placed two ordinary sized stock barns at a distance of about twelve or thirteen feet apart, leaving the space between to receive the manure from the stables of each barn. I then roofed and enclosed the space between, leaving the ground flat for manure, and the space above for hay. My stable floors were then laid on the ground so snugly embedded in the clay as to be perfectly water-tight. This plan of stabling and securing the manure I found the most convenient and economical I ever met with; but I found I should have kept the space at least fifteen feet, to have sufficient room for the manure.—(See annexed description.)

The advantage of having two barns of this size, instead of one large one, is, that they are less expensive and more easily kept in

repair than a large one, and the connection by the space between is easily effected, and more useful than any other part. As one is intended for a grain barn, it should be closed with suitable windows against the dung pit; but the other, intended entirely for stock, may be left open to the pit, after boarding it three feet and a half high. It is intended that the barn floors should be two and a half feet higher than the stable floors, which lay on the ground; and the scaffolds on each side of the barn floors to be four feet high, which makes a great space for hay, and is favorable for low pitching. It is necessary to have the drains from the stables either into the pit or out under the doors. This method of building I tried with good effect about twenty years ago, and can recommend it, by experience, as the best method I have seen.*

9. My means for making manure are very limited. For my method, see preceding answer. I generally collect about one hundred loads annually, and apply them all.

10. My manure is applied partly in its green state, and partly composted; but I would prefer having it thoroughly composted with such vegetable and fossil matter as would completely absorb all the gases, before I applied it to any soil for any crop.

11. I could increase my manure by extra labour, but whether cheaply or not depends on the rate of wages.

12. I have used very little lime, no plaster, a little guano, and a little salt, which has led me to the following conclusion, viz.:—Lime mixed with any kind of excrementitious manure, expels the ammonia, which is the most active principle, and therefore impairs the manure. On clayey or sandy soils no benefit has been observable by using lime when applied unmixed with other manure; but on the spongy marsh—which is in fact a species of turf bog—when it has been drained, lime has been used to good advantage, and I have used it with good effect on fruit trees in form of a whitewash. Guano I have used on Indian corn hills, and found it an active stimulant, but saw no evidence of its fertilizing property in the succeeding crop. Salt is well known, when applied to plants, to destroy all kinds of vegetables, but I have found its effects in the compost very useful; it retains moisture, and resists the destructive influence of the air.

Tillage Crops.

13. I till about twelve acres;—plant about one acre in Indian corn, three in potatoes and root crops, two in wheat, four in oats, and two in buckwheat, peas, beans, &c.

14. Indian corn requires about eight quarts of seed to the acre,

* This description was illustrated by a drawing, which we regret to be unable to reproduce here.

and is planted from 25th May to 10th June; 1st of June is preferable. The ears are pulled off when ripe, and carted to the barn for husking. My average crop is about forty-five bushels per acre. The mode of cultivating is by hand-hoeing, horse-hoeing, and weeding. Potatoes, if the seed is cut, require about ten bushels per acre; if planted whole, require about sixteen bushels; mode of cultivating same as corn, and dug by hand. Last year's product, (far below the ordinary average,) 130 bushels per acre. Wheat requires one and a half bushels of seed per acre, and should be sowed about the middle of May. My manner of preparing the seed, is first sifting out all the seeds less than the wheat, then washing it in a pickle to float off oats or light grain, then putting the seed into a leaky barrel for about three days, mixed with fine quick lime, then sow, harrow it in, and roll the field well. Produce per acre, fourteen bushels. The weevil has been very destructive to the wheat for several years past, but I know no remedy. Oats require four bushels per acre, and may be sown with good effect in the same manner as the wheat—any time between 20th May and 10th June. Buckwheat requires about half a bushel to the acre, and should be sown between the 15th and last of June. Last year's produce, about thirty bushels per acre. Wheat should be cut as soon as any symptom of rust appears on the leaf. I reap and bind it in small stooks in the field, until thoroughly dried for grinding.

15. The kind of manure which I prefer, is that which is well composted—quantity not less than thirty loads per acre, applied in the hills of potatoes or corn at the time of planting.

16. Manure is generally covered the same depth as the seeds;—Indian corn one and a half inches—potatoes about two inches.

17. My potatoes have been affected with rust or rot, in a greater or less degree, ever since the summer of 1845. Sometimes a dry rot, affecting partially only a few; sometimes a thorough destruction before digging; and sometimes the whole mass perishing in the cellar. I have found, after the disease had commenced, if I put them away in the cellar, mixed with a small quantity of fine slacked lime, the decay ceased; but I have found no remedy for their attack in the field.

Grass Lands, &c.

18. The grasses in general use are the timothy, red clover, white clover, brown top, and a mixture of all these, occupy nearly all the meadows in the County. The two latter kinds are seldom sown, but grow spontaneously from the abundance of seeds with which most of our fields seem to be supplied. I sow about half a bushel of timothy seed, and two or three pounds of clover seed, to the acre, at the

season of sowing my grain, and depend on the roller covering it. I have ascertained that one pound of red clover seed contains seven and a half seeds to a square foot on an acre.

19. I mow about fourteen or fifteen acres, averaging about two tons per acre. I endeavour to cut the grass when it is full grown, but before the seed is ripe enough to fall off in using the hay. I prefer making the hay by spreading out the swaths in good weather, through the day, and raking it towards evening with a horse-rake, and putting it up in snug cocks. It then depends on the state of the weather whether any more opening will be required before it is carted into the barn. Hay may be put into the barn with safety, when it will lose one third of its weight in the mow.

20. I have now no mowing land unfit for the plough, excepting natural meadows at a distance, which I seldom occupy. My mode of managing such meadows has been to reserve them for stock hay, and to prevent, as far as possible, cattle treading on them. There can, however, be no such thing as meadow land, of any considerable quantity, which is not fit for the plough—unless it be low lands liable to be overflowed by summer freshets.

21. As my farm is intervale, I have witnessed the benefit of a freshet; but when I lived on an upland farm, I had taken pains in laying down a gentle declivity with suitable drains to carry off surplus rain water. After the ground had become frozen, I used to stop those drains and turn the brooks over the meadow in such a manner as to leave the surface incrusted with ice, which remained there until April, while the neighbouring fields were freezing in the night and thawing in the day. I found the grass on this meadow looking earlier and greener than the adjacent fields. I also tried letting in the tide to irrigate my dyked marsh. This I found injurious; but by placing a gate at the head of my aboideau and flowing with fresh water, I found a benefit.

22. I have not operated on peat land in any other way than using and testing its value in the compost heap. But I have drained swamps and marshes with good effect, and made good arable soil where the land had been considered useless. The mode I have invariably pursued, has been to make open headland drains, which enabled me to plough and ridge the declivity; raising good potatoes with ordinary manure and culture; and afterwards grain and English grass. I have had the satisfaction to see ten acres of intervale swamp, which I surrounded with a ditch four feet deep, and which was and had been considered valueless and lost labour, now in the hands of my successor, thrown into beautiful ridges and producing the finest growth of buckwheat I ever saw, and that succeeded by good English grasses. This improvement was first performed chiefly by the spade and manual labour, the

grain was then harrowed in with teams, and carted off in the harvest, where no team ever trod before, excepting on the frost. The whole expense of draining and ridging did not exceed £6 10s. per acre, and the reclaimed soil is now considered almost inexhaustible. I have on my farm one main drain along the line, varying in depth from two to five feet, and about half a mile in length; and the other drains of the farm (which are such as are made by ridge ploughing,) lead into it. My drains are all open, and generally so constructed that a loaded waggon may be driven over them; these prove quite sufficient, and do not hinder ordinary farming operations.

Domestic Animals.

23. I do not now keep oxen. I keep seven or eight cows, a few heifers, and three horses. Cattle—a mixture of the Ayrshire breed. Horses—a mixture or cross of the English breeds.

24. I have tried the Ayrshire breed of cattle with good effect, and found them to produce good milkers, and very active oxen, but my stock has generally been of such a mixed breed that I have not been able to decide on any satisfactory experiment as to their fattening.

25. I have found it best to winter my cattle in such a manner that the growth of the young stock will not be suspended during the winter. I feed them in a manger, and as I have observed that ruminating animals, in a good pasture in October, lie down at sunset and do not alter their position before sunrise next morning, I indulge them with their natural quiet. I allow them to lie with their heads towards an open barn floor, to give them free air, with a dry bed, and shelter from wind and storm. I feed them with hay morning and evening, and the less, when I have plenty of turnip tops or roots to give them. I allow them to occupy the yard in moderate weather, and generally water them there from a well, with a little straw to feed on through the day. Since I have allowed my geese to run on the floor of my cow barn and stable, I have never discovered any sickness among my cattle; and my cows, with such treatment, afford as much butter as from good pasture. I find cattle should be so kept together as not to be in danger by, or in fear of each other.

26. I make no cheese; but a little more than a hundred pounds of butter per cow, besides milk for a large family's use. Butter manufactured in the ordinary way, and cream generally raised by the frost in winter.

27. I keep about twenty sheep—a cross of the Dishley with the common breeds; average per fleece, 3½ lbs., at 1s. 6d. per lb. It is not uncommon for the number of lambs to exceed that of the ewes, but ewes seldom fail having lambs. Young lambs are, however, liable to accidents, exposure to dogs and wild animals. I think I

have now fifteen lambs and seventeen ewes. If the sheep are fat in March or April, the butcher will give 20s. each, and leave me the fleece; lambs in the summer sell at from 7s. 6d. to 10s.

28. I consider the best method of wintering sheep is to give them as much good hay and turnips through the winter as they will eat, without waste. Allow them liberty of a large yard, and shelter when they desire it, and water in the trough once a day. In the months of March and April allow each ewe a pint of oats a day, which amounts to about a bushel each. I do not recollect having lost a sheep by sickness in twenty years. I have discovered no difference in the health of coarse or fine wooled lambs, but have invariably sentenced coarse wooled lambs to be butchered.

29. I generally keep one or two swine through the winter, and raise four or five pigs through the summer. The last autumn my pigs, at six months old, weighed 140 lbs.; old swine, 350 lbs.

30. I have proved satisfactorily that the roots are not to be compared with Indian corn for fattening swine; although for milk, the roots are far better than grain. Boiled potatoes and grain make better pork, and fatten animals faster, than either grain or potatoes alone. Either potatoes or turnips will fatten cattle, with good hay; but neither will pay for feeding swine without a mixture of milk or farina. I feed swine with boiled potatoes, milk and buttermilk; but in fattening, give them corn or oats once or twice a day—always preferring a supper of Indian corn for them to digest through the night.

Fruit.

31. I have no apple trees but those I set out on my farm in 1847, the year I purchased and removed to it. They have hardly begun to bear, and I am uncertain as to their quality and character.

32. I also set a few choice plum trees, which look flourishing. They are called the green gage, sugar plum, and damson. I have also a few cherry trees.

33. I am not aware of any insects injuring my trees; but I have discovered a species of caterpillar that sometimes visit a solitary tree in great numbers, spinning a sort of web over it like spiders. I am informed that burning sulphur or gunpowder under the tree destroys them; but I am less sure of that than I am of the fact that they eventually destroy the tree.

34. My general management of fruit trees has been to transplant them to a good soil, and to till the land around them to prevent the grass from binding the soil, and then occasionally pruning off useless shoots.

35. I have observed that the most successful farmers, although aided by theory, have generally been guided by experience, and it is

necessary that that experience should be acquired on the farm or kind of soil they have to occupy. That practise which proves successful in one place might prove ruinous in another. Many valuable opportunities for successful operation are lost for want of capital; and many farmers have been ruined by their inability to meet liabilities for borrowed money, which had been profitably expended if it had been their own. Much disappointment and discredit to the profession have arisen to purchasers of farms by endeavouring to engross more land than they could make available, and in extending their operations beyond their resources. By carefully avoiding these errors, many have become wealthy farmers, and I scarcely know a farmer in the Province who has given his whole attention to farming, without proving successful.

Fences, Buildings, &c.

36. I have two barns standing near my house and near each other; one 42 by 32 feet, used for cattle, sheep, and hay; the other 36 by 30 feet, used for horses and grain. A corn house for drying corn in the ear, 11 by 15 feet. A carriage house, 24 by 16 feet. Also a woodshed;—all constructed with frames in the ordinary way.

My fences are wooden—chiefly of rails or poles. Along the highway it is of cedar posts and rails, about sixty rods long; two line fences, nearly three quarters of a mile in length each—partly ditch and partly hedge, but chiefly wooden; with three others at right angles to the side lines, crossing my farm, forty-eight rods each.

38. Ordinary farming operations are guided more by judgment than accurate weighing and measuring, and registered in the recollection only.

39. It is very difficult to keep regular farm accounts, when hired labour forms so large an item of expense; and the farm servant is also house servant and groom. Labourers are generally hired by the year, and a very large proportion of their labour adds nothing to a fund to pay their wages; and it is allowed that it costs more labour to provide and prepare fuel for the house than it does to raise bread for the family. A farm tenant who raises his rent from the soil, may count the cost, but the owner, dividing his expenses between improvement, convenience, and profitable return, finds it very difficult to discriminate and strike the balance. I have always endeavoured to form an estimate of the expense of any undertaking by former experience of my own or others, and then to sum up the real cost to compare with my estimate; but I have always found farming operations contingent on many casualties. That my practise in this respect has influenced my system, I admit—how far it has improved my fortune, is uncertain.

In the foregoing answers to the questions proposed, I have endeavoured to be candid and explicit, without adding any thing beyond my own observation and experience.

My own farming operations are on so small a scale, that I hope they will not be considered as a general case. Having entered on the seventh stage of life, deserted by my sons—who have sought other occupations—and depending on hired labour, I have found it necessary to restrain my agricultural ardor and yield to economy, by reducing my stock and occupying less land; but I am still convinced that the occupation of the farmer is the most rational, dignified, healthy, and happy.

I am, sir, your obedient servant,

June 10*th*, 1851. H.

REPORT OF COMMITTEE,

Concerning the Principles of Breeding.

The breeders of domestic stock should never forget the adage of the celebrated Bakewell,—"That like produces like,"—that the defects of the parents are just as surely transmitted to their offspring as their good qualities; and as regards the horse—blindness, broken wind, spavin, curbs, ringbone and founder, are all hereditary; and though these blemishes may not appear in the immediate progeny, they frequently appear in the next generation. Breeders, therefore, should make it a rule, 1st, to breed from none but sound and healthy parents, and such as are free from all natural infirmities of structure, temper, or disposition; 2nd, to breed from the most perfect in form, and to take especial care that a tendency to the same defect does not exist in both parents; 3rd, to breed from animals of a distinct and positive character, and to take care that the male and female are so assorted as to insure a certain description of offspring.

The first and second of these rules are sufficiently plain—the third may want same explanation. By the first clause it is meant to be understood that only animals of a pure and distinct class, such as the Clydesdale, the Suffold, the Cleveland, and the Canadian, among horses; the Ayrshire, the Durham, and the Hereford, among cattle; and the Cheviot, the Southdown, and the Leicester, among sheep; can be employed with propriety, and that crosses of all sorts on the side of the male should be strictly avoided; and by the second clause, that animals put to breed should bear a resemblance to each other as regards form, weight, &c. That an English dray horse, put to the small mares of this Province, or a large short-horned bull to the cows, would be almost sure to end in disappointment to the breeder. Another thing to be borne in mind by the breeders of stock is, that when high bred males are used, the progeny should be fed in something like the same way as the parent stock. Thus Durham cattle and Liecester sheep are, in a great measure, created by good feeding, and where they are employed in crossing, the progeny must be fed in a way very superior to what is common in this Province, otherwise it will not be found to answer.

The Domestic Stock of this Province.

The writer of this is not qualified to go into the history of the domestic stock of this country, nor does he think it at all necessary. That they have all been imported at one time is certain, and that

they were then fair specimens of the breeds they belonged to is possible, but injudicious crossing and scanty feeding have had their usual effect, and now they are at a point when, according to the proverb, they should begin to mend, since they cannot well get worse. There are exceptions to this, I am sure, but they are exceptions only.

The Horse.

So far as speed and endurance are concerned, the horses of the Province leave little to be desired, perhaps; but other qualities are wanting besides these. However desirable it may be for the farmer to be carried rapidly through the dust of summer and the snows of winter, it is fully as important surely that his fields should be well and deeply ploughed, and that cannot be done by the present breed of horses. The lumberman begins to find the value of bone and muscle in the horses he employs, and the farmer must come to the same conclusion very shortly. The sort of ploughing, or rather skinning, now practised, may do for the land just reclaimed from the forest, but it will never do for land already exhausted. The deficiency of the horse being admitted, the next question is, how is that deficiency to be repaired. It cannot be supposed that the present stock of horses can be swept away and their places supplied by others of a more serviceable description; that would be rather an expensive process. The only practicable way is to improve the breed by skilful crossing. In a process of this kind, the male animal will be employed in preference to the female, as he will stamp his image on fifty or sixty of a progeny in a season, while she can only stamp hers on one. The great difficulty is to select the proper kind of horses, and it may be necessary to try more than one breed before a satisfactory result is obtained. If the writer of this were to hazard an opinion, it would be in favor of the Clydesdale breed; he has long been acquainted with them, and can testify to their value as agricultural horses; but a better authority, the late Mr. Youat, editor of the *Veterinarian*, in his work on the horse, says, "The Clydesdale is larger than the Suffolk, and has a better head, a longer neck, a lighter carcass, and deeper legs; strong, hardy, pulling true, and rarely restive." The southern parts of Scotland are principally supplied from this district, and many Clydesdales, not only for agricultural purposes, but for the coach and the saddle, find their way to the central, and even southern counties of England. Brood horses should be imported by societies; their high price, together with the expense and risk of a sea voyage, rendering it imprudent for individuals to embark in the business; once landed, they should be put under the charge of careful persons who would take an interest in the experiment, and only put to the best mares that offered.

Cattle.

The cattle of this Province are kept principally for dairy purposes, and consequently any attempt at their improvement should be made with a view to their milking properties; here again the male animal will best suit our purpose, and fortunately we have not the same difficulty in making the selection as in the case of the horse. As dairy stock, the Ayrshire breed of cattle stands unrivalled. They do not differ materially, in size, from the cattle of the Province, and will thrive equally well on the same description of food. Moreover, there are several herds of these cattle already in the country, and they, in a short time, will be able to furnish all the bulls that will be wanted, and at prices greatly under the cost of imported ones. Were such bulls used exclusively for a few years, we should lose sight of the native blood altogether, and get in its place a breed of acknowledged excellence for the dairy, and admirably suited for crossing with such breeds as the Durham and Hereford, as soon as a better system of agriculture and a superabundance of food render such breeds necessary or profitable. The time at which the pure blood can be dispensed with is a matter of easy calculation; of course the first cross belongs equally to both breeds; suppose it to be a heifer, and put to a pure bred bull, the progeny will be three parts Ayrshire; carry it to the third generation, and the result will be seven-eighths pure blood; and the fourth generation will be fifteen-sixteenths, which is going about close enough.

Sheep.

The sheep stock of the Province are very unequal, while the greater part perhaps are trashy enough; there are others, and of these not a few that are nearly as good as could be found anywhere else under the same circumstances of food, climate, &c. If farmers, instead selling their best lambs to the butcher and breeding from the refuse, were to use their best lambs only for that purpose, and never put them to the ram before they were twelve months, or after they were four years old—select their rams from the best stock within their reach, and change them so as never to let them go to their own progeny, the sheep stock might soon be made nearly all that could be desired of them. The old country breeds most likely to answer in this Province, are the Cheviot and Southdown, and of these the latter is perhaps the best; equally hardy with the Cheviot, they are more symmetrical, their mutton is more highly flavoured, and what is of great importance in this country, they are gentler in their temper; their wool is quite equal to the Cheviot in quantity and quality, but it is of a dusky brown colour. The proper season of lambing should be a matter of serious consideration with the farmer:—where there is abundance of food and shelter it may take place any time, but if

the shelter is deficient, and the food merely hay, it should never happen before the middle of April; every one interested in the matter must have observed with pain the miserable appearance—the protruding bones and tucked up bellies which ewes, that have lambed early in the season, present in spring; the lambs, too, are stunted in their growth, owing to the scanty supply of milk, and are not better in the fall than others that came a month or six weeks later. In conclusion, the writer believes that there are worse places on the face of the earth than this same Province of New Brunswick, but he does not think it quite the *Goshen* it is sometimes represented to be by gentlemen whose knowledge of agricultural matters must have come by intuition; he has seldom seen a description of pasture where such high bred and high fed animals as the Durham cattle or Leicester sheep would thrive in summer, and he does not think the usual winter fare is calculated to mend the matter. For these reasons, he has confined his recommendations to what may be considered a humble class of stock, but which he believes will answer best in the present circumstances of the country.

Respectfully submitted.

ROBERT GRAY.

REPORT,

On the Breeding and Management of Pigs.

A Prize Essay on this subject, by THOMAS ROWLANDSON, appears in the 11th volume of the Royal Agricultural Society of England, published in 1850, and contains so much valuable and appropriate matter on the subject committed to us, that we deem the republication of copious extracts therefrom to be highly desirable:—

Of the various Breeds of Pigs.

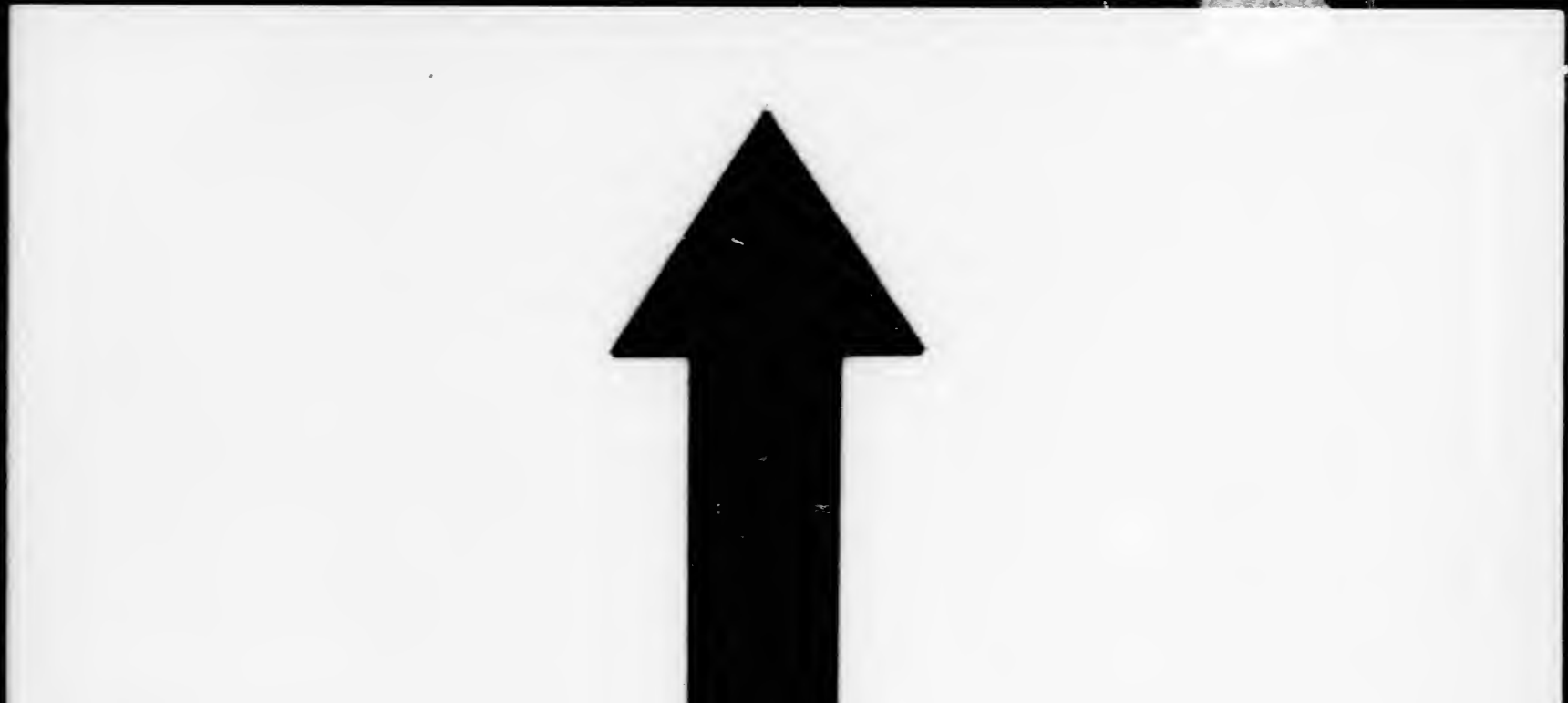
"The wild boar is undoubtedly the animal from which all our breeds of pigs have been derived, and to which type the whole would speedily degenerate were they again left to nature. Leaving out of view that nearly extinct race the Irish greyhound breed, the kind which approaches nearest to the original stock are the large kinds which are known as the Old Hampshire, Berkshire, Lancashire, Cheshire, Suffolk, &c. The modern breeds of Hampshire, Berkshire, Suffolk, &c., are characterised by their short pricked ears, whilst the older Lancashire, Yorkshire, Cheshire, &c., have large flop ears—"the old English hog;" both kinds were originally covered with strong bristles. There are good grounds for supposing that "the old

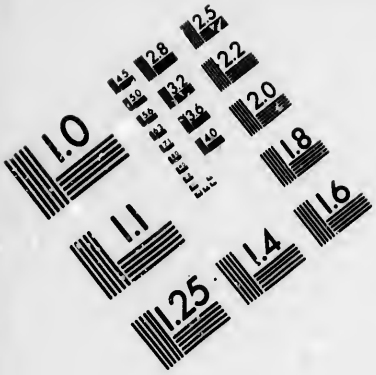
English hog," with flop ears, was originally the only domestic animal of its kind throughout the kingdom. When or how the short prick-eared Berkshire and Hampshire hog became introduced I have always been unable to trace: the probability is that it has been obtained by a cross with some of the more southern European breeds. The genuine old English breed was coarse boned, long in limb, narrow in the back, and low shouldered, a form to which they were most probably predisposed from the fact of having to travel far and labour hard for their food, and undergo considerable privations during winter; notwithstanding these ill qualities, I have witnessed in Lancashire, Yorkshire, and Cheshire, instances where the old breed have, through the effects of better care, shelter, and food, produced a most valuable animal, the thick flop ears having become fine and thin, the bones of moderate size, the thick coat of stiff bristles converted into a finer description, spread more thinly on the animal, and the skin become fine and ruddy. I have seen this occur where there can be scarcely a doubt that the animal was the aboriginal one, and had never received a cross. Until within a very recent period fine animals of this description were to be found pretty frequently with the farmers in the counties named. They had several admirable qualities; amongst which were the facts that they were exceedingly prolific and excellent mothers. I have known a sow of this breed have twenty-four young ones, often twenty and twenty-two, though more commonly from twelve to eighteen. I have frequently known a sow of this kind suckle twelve to eighteen; but the common practice when the progeny was so numerous is to force the young ones forward, and kill them as sucking-pigs until they are reduced in number to about a dozen. The sows of this breed have rarely more than eighteen teats; and it is not usual to see more than sixteen to eighteen sucking. The only disadvantage of this breed is, that they require a considerable amount of food without making an adequate progress for the first twelve or sixteen months; after which latter period, if put up in fair store order, there is scarcely a breed that puts on more flesh for the meat given to it than this breed, and it increases to enormous weights, the hams, when well cured, being of excellent quality. The old Berkshire hog was of large size, and is, I believe, now almost extinct. Laurence, in his treatise on Cattle in 1790, describes it as long and crooked in the snout, the muzzle turning upwards; the ears large, heavy, and inclined to be pendulous; the body long and thick, but not deep; the legs short, the bone large, and the size very great. This general description, but particularly "the ears inclined to be pendulous," shows that the celebrated Berkshires are derived from a cross of the old indigenous breed. The large Hampshire breed are characterised by somewhat similar qualities: there is also a smaller and finer or improved Hampshire

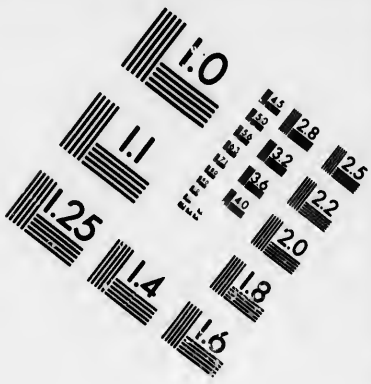
breed, the result of a cross with either the Chinese or Neapolitan; the whole of which will be noticed when the mixed breeds are taken into consideration. I have introduced the Berkshire and Hampshire breeds in noticing the larger breed; not that I believe either county possessed originally any other breed than the large flop-eared; I have done so more in deference to common opinion, which usually gives that breed a distinct and original character. It will afterwards be shown, however, that the character of the improved Berkshire may be obtained by a cross between the indigenous large breed, and one or other of the smaller ones. Of the smaller breeds there are only two that require any lengthened notice—the Chinese and the Neapolitan. Crosses of one or both of these breeds with "the old English" have produced all our improved varieties of the larger kinds.

"The Chinese hog was first introduced for the purpose of improving our native breeds. There are two varieties, the black and white; both fatten readily. The black variety varies little in appearance from the Neapolitan, the distinctive characteristics being the shorter and thicker leg and much wider snout of the Chinese; their form is a round body, short head, wide cheek, high chine, exceedingly thin skin, covered with thin bristles; it has not a very fine shape, and when fat appears to have no neck, and little more than the tips of the snout can be seen; it is a very gross feeder, eating almost anything, and if the food given be of an animal and fatty nature the skin will frequently burst in patches, and form scabs on the animal's back, which it will sometimes rub off, displaying its oily fat covering beneath. The pure Chinese is very susceptible of cold, and too delicate to be acclimated in this country; its only valuable quality is its great aptitude to fatten on a comparative small amount of food of indifferent quality. If fed on farinaceous food, and not made too fat, the flesh is delicate, but if animal food has been much introduced, such as greaves, &c., and highly fattened, the flesh is coarse and the fat oily and disagreeable; they make nice sucking pigs and dairy fed porkers; the latter good, whether used for roasting or pickled pork; they are prolific, but bad mothers.

"The Neapolitan stock is the one from which our improved smaller breeds are indebted for their most admired qualities. The Neapolitan pig has a smaller quantity of bone in proportion to its size than any other breed; the colour black, great aptitude to fatten at an early age, and will put on flesh with a moderate amount of food of indifferent quality; in fact, will get into something better than store condition by grazing: they are moderately prolific, and excellent sucklers; average produce of a litter from eight to nine. I have both heard and seen it remarked that they are bad mothers; whenever I have had an opportunity of tracing such rumours to their sources, I have invariably found that the want of milk has arisen in consequence







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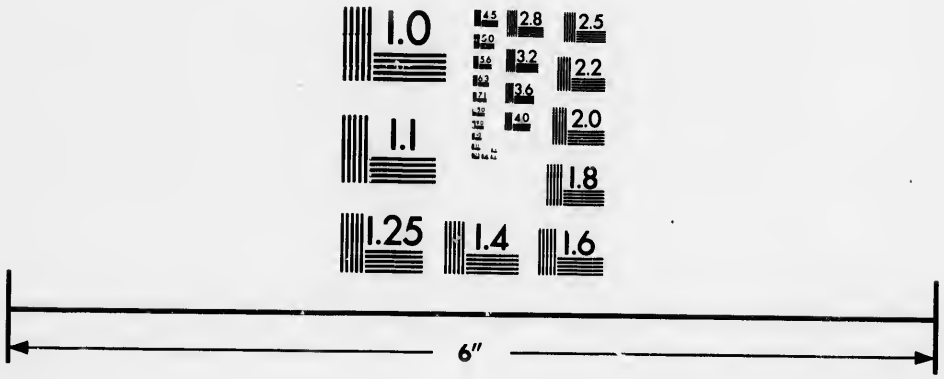

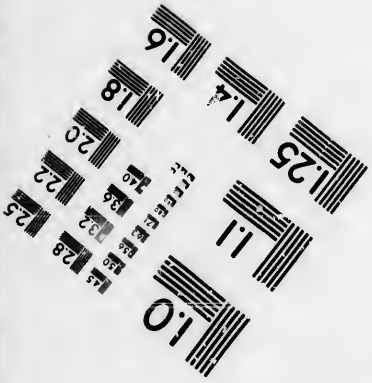

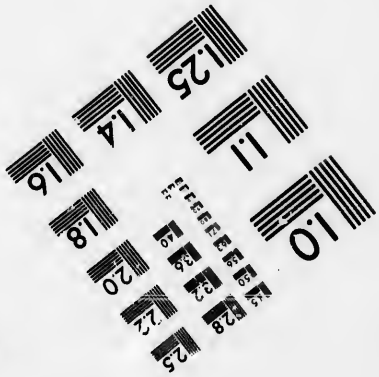

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of being allowed to get too fat whilst with young: in fact so great is the tendency of this breed to put on fat during the period of gestation, that they will almost get over fat by being merely left in the straw-yard, to which place they are a valuable assistant, being inveterate rooters. This breed is to be distinguished from the black Chinese breed by its larger frame, greater general symmetry, and much sharper snout; in proportion to its size, it is not so long in the body as the Chinese; it is destitute of hairs.

"The varied intermixture of the breeds already enumerated constitute the whole of the varieties of swine known amongst farmers, the three grand distinctive features of which are, that for size of frame, but inaptitude to fatten until they are twelve or sixteen months old, we must look to the flop-eared old English breed; for very early aptitude to fatten from the time of farrowing until they are ten or twelve months old, we must resort to the Chinese. If properly kept from the first, this breed will be found to pay best by killing them between nine and ten months of age. For symmetry, moderate size, flavour of meat, aptitude to fatten, and excellent nurses, as a self breed, there is none to compare with the Neapolitan; it pays best to kill this breed at from nine to twelve months old. The improved Essex breed is a slight improvement on the Neapolitan; in external appearance they closely resemble each other. Notwithstanding the relative and distinctive excellencies of the breeds named, it is possible, by judiciously crossing them, that the excellencies of one kind may be intermixed with the desirable qualities of another; thus, the slow fattening quality of the old English breed may be improved by crossing with the Chinese—in this way the celebrated Berkshire pig was first obtained. A description of the indigenous Berkshire hog has already been given; and in proof of the statement here made I shall quote the words of the author of the 'Berkshire County Survey, 1809,' who states:—"But excellent as the Berkshire swine undoubtedly are, they are usually crossed at intervals with the Chinese or Tonquin race. Mr. Smith, sen., of Letcomb Basset, *who has studied the breed of native animals* for many years, assured me that it was necessary to cross the Berkshire swine once in six or seven generations with the Indian race, or they would degenerate in shape and qualities." By comparing this account of the modern Berkshire with the preceding one given of the old species, we are led to understand that a cross with the Chinese has constituted a marked improvement in the race. Now we know that the modern Berkshire hog has a tendency to fatten at a tolerably early age, and can generally be turned out as fat as he can be profitably made to be by the age of fourteen months. Of course I here allude to hogs that have been carefully attended to, and never allowed to fall back from the time they are taken from the sow until sent to the butcher; and as a

generally good serviceable hog at all ages, from the sucking pig up to the gammon of bacon, he is scarcely exceeded by any cross breed."

"*The best and most economical Mode of Rearing, Keeping, and Fattening Pigs.*

"In selecting males and females to breed from, neither should be chosen less than twelve to fifteen months old: the third litter will generally be found the best for this purpose. Whether as boar or sow, the finest of each sex ought only to be selected. By these means only will the good points of any breed be perpetuated. There is generally one small pig in every litter, called the riddling—this should never be used as an animal to breed from. For sucking pigs and porkers colour is an object—this should invariably be white. For bacon hogs colour is a matter of indifference, other than the fact that black pigs appear generally to do better on the same amount of food than the white breeds. A singular reason was assigned to me for the prevalence of black-coloured pigs in Essex, viz.: that the white kind was subject to eruptions of the skin of the back when put into the clover-fields, whilst the black kinds were not obnoxious to this complaint. Probably the white kind had more of the Chinese, and the other more of the Neapolitan breed. It must be remembered, also, that the old Essex breed was a black one. A sow's usual period of gestation is from sixteen to seventeen weeks. When she has arrived near the period of farrowing she will be seen collecting and carrying straws in her mouth, to form her bed. If there exists any suspicion that the sow will devour her young, as sometimes is the case, care should be taken that she is securely muzzled. All such sows should be fattened and slaughtered. The carnivorous habit here alluded to is rarely exhibited amongst the improved breeds; amongst the old sows of the rough breed this habit was somewhat prevalent, probably brought on in many instances through deficiency of food.

"Sows should be put to the boar at such times as to farrow (in April), unless sucking pigs for the festive time of Christmas and the new year is the object; if so they should be well littered and kept warm. Whether intended for sucking-pigs, porkers, or stores, skimmed butter-milk and whey, mixed with steamed potatoes, and a little barley, pea, or oatmeal, should be given in moderate quantities even when sucking; if intended for porkers, they should be kept continually fed up with this mixture. Sucking pigs should never be allowed to run about, and porkers only permitted sufficient exercise to keep them in health. Where convenient, store-pigs may be allowed to pasture in clover, giving them only a morning and evening meal in addition, or they may be allowed to root in fallows or on the dung-heap, and during winter in the straw-yard. In fallows and rough pastures

swine eagerly devour such weeds as dandelion, chickweed, sow-thistle, &c.

"For store pigs, exercise is necessary in order fully to develop the frame. In feeding, tranquillity is equally indispensable, a singular exemplification of which was made in the course of the experiments of the Earl of Egremont (1777), related in the 'Annals of Agriculture,' upon some porkers, seven of which were put up to fatten in the ordinary manner in a stye, and another of the same brood, but smaller than the others, was put into a cage one week later. All were fed alike on barley-meal. When slaughtered, the one fed in the cage exceeded in weight any of the others. The cage was made so that he could not turn round, and had only sufficient room to rise up and lie down. Whether this mode would prove advantageous on the large scale is a matter of doubt. The experiment has however been adduced by Baron Liebig as a practical evidence of the correctness of his theory respecting the formation of fat. Too much exercise is well known to retard fattening; or, to use the ordinary phrase used by farmers, "they run all the flesh off their bones."

"Where a large number of hogs are to be fattened and bred, it has been recommended that the sties should form a semicircle, the steaming apparatus, &c., being placed by the straight side. This form has many advantages. In a general way, the feeding of hogs will only form a minor adjunct to the other business of the farm, and at only few places will it be found convenient to erect new buildings for the purpose, however advantageous they might eventually prove. There are some circumstances connected with sties which should be INVARIABLY attended to: these are, that their floors should be well paved with stone, flag, or hard brick, the interior elevated half a foot above the exterior, and a sufficient slope afforded to both, with proper drains to carry all moisture to the dung-heap. Separate sties must be kept for breeding-sows, weaning pigs, stores, and fattening pigs.

"Sties should be so constructed that the swine may be fed without the feeder going amongst them; and divisions should be made in the feeding-trough, according to the number of swine, in order to prevent the strong driving away the weak; if they can be made to communicate conveniently with the straw-yard and dung-heap, all the better, particularly for brood-sows.

"The sties should be frequently swept and washed out, and lime-whitened at least three times during the year. The most profitable mode of feeding store-pigs is to commence by giving only inferior sort of food thrice a day, bettering the quality and increasing the quantity as the frame becomes perfectly developed. The store or youthful period of all animals occurs when their vital and nervous energies are at the highest, which enables them to assimilate nutriment from indifferent food. Moderate exercise at the same time

assists nature and aids the full development of the frame, the animal being thus gradually prepared to take on that increased amount of muscle and fat which ultimately repays the farmer for his toil and expenditure. In making choice of food for hogs there can be little doubt but potatoes, when plentiful, mixed with pease or bean-meal, is the most economical food for store pigs, and the same food mixed with Indian meal and buttermilk is the best adapted for feeding porkers. In cheese dairies, pease or bean-meal should always be mixed with the whey, in order to replace the caseous matter abstracted by the cheese. Swede turnips boiled form only an inferior substitute for potatoes, their feeding properties not being equal to carrots and parsnips; in fact, on the two latter, hogs will do well if combined with milk and a little bean or pea-meal. Oatmeal and skimmed milk is the best food for aiding sucking pigs and very small porkers of 40 to 50 lbs. weight.*

"The theory of the action of the various articles of food named is as follows—amylaceous or starchy food, such as potatoes, aid in sustaining the animal heat and the formation of fat, the latter property being much increased when assisted by other nutritious matters in a more concentrated form, particularly maize or Indian corn. Pea and bean-meal, from the great amount of caseous matter which they contain, should invariably form a portion of the food of growing pigs, affording, as they do, the material for forming the cellular and other tissues, in such a high degree indeed that hogs fed on bean-meal alone are well known to form bacon disagreeably hard. Where pigs are fed without skim or buttermilk, pea or bean-meal should form an invariable part of their food. An inferior substitute for pea and bean-meal is frequently used in the shape of bran and pollard, which contain a considerable portion of the elementary substances required to develop the bones and tissues. In the present uncertainty of the potato crop it would be hazardous to make that tuber the basis for the calculation of the cost of producing swine's flesh: if it unfortunately eventuate that the potato should cease to be cultivated to the extent that it has formerly been, the feeding of hogs will necessarily be thrown principally on milk and grain. If this should prove to be the case, barley, from the large amount of starch which it contains, will be found the best substitute for the potato; in which case one-third by weight of barley, one-third of bran or pea-meal, and one-

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* On this, I some years ago fed two sucking-pigs taken from the sow at about six weeks old, and as nearly as within a few ounces each of the same weight; *one* on skim-milk with pollard and oatmeal, and *the other* on an equal abundance of rich kitchen-wash of unlimited quantity.

The pigs were killed on the same day, when just four months old; that fed on wash weighing 43 lbs., and the other on skim-milk, 40 lbs. 10 oz. live weight. The meat of the former appeared very fine to the eye, but when roasted was coarse and greasy to the palate; while the other, though very fat, was extremely delicate both in flesh and flavour.—J. F. Burke.

third Indian meal, will be found the cheapest and best mixture for growing hogs; the pea-meal to be lessened and the Indian meal increased as the hog approaches maturity.

"Potatoes mixed with the above grains form the most appropriate food for store and fattening hogs, gradually withdrawing the potatoes, and finishing the feeding with dry balls of the mixture named. For exquisitely fine pork, whether to be consumed fresh or as bacon, the hogs should be fed solely on skim and buttermilk mixed with oatmeal. The mixture of Indian corn, barley, and pea-meal, forms a very close imitation of the constituents of oatmeal. It has been found very profitable to consume tares by store hogs."

"Sufficient examples have been shown to prove that the cross known as the improved Essex is the best breed for general purposes, if intended to be slaughtered under 12 months old.* For larger animals crosses from the larger breeds which do not arrive so early at maturity are to be preferred. The examples here adduced also go far to prove that where the breed and mode of feeding recommended in the prior part of this paper are combined, there the greatest amount of meat and fat is formed, and on trial it will be found also to be at the least expenditure of food and capital. It may be well to observe that middlings is an inferior description of wheaten flour; toppings or sharps is a fine description of pollard; all which contain muscular and tissue-forming substances very analogous to pea and bean flour. In some localities favourable to the purpose, a number of hogs are reared and even fattened in what may be termed a wild state, on acorns and beech mast.† I do not know of any experiments that give sufficiently accurate details of all the circumstances requisite to arrive at correct inferences respecting the cost of obtaining a given amount of swine's flesh from a stated quantity of food, all the experiments detailed in the Sussex, Buckingham, Hampsh[illegible], Middlesex, Shropshire, &c. reports to the Board of Agriculture being more or less deficient in details which are requisite to form correct estimates. One important experiment reported in the Buckingham Survey ought not to be passed over, as it serves to show accurately what is well known to pig-feeders, that there is a point in fattening hogs beyond which a decided loss will accrue if persevered in. Thus, the increase of flesh in a pig put up to be fattened, and regularly weighed, was, on the following dates,—

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* The improved Essex, which will nearly mature at 8 to 12 months, is evidently more profitable than a pig that will not arrive at maturity at an earlier period than from 16 to 19 months, and has consequently to be wintered over before it can be made fat for the market.

† The word "bacon" is said to have been originally called "beechin," as the finest flitches were considered to be those furnished by animals that were fattened on beech mast.

	Stones	lbs.		lbs.
"Oct. 10	36	7		
24	41	5		38 gain.
Nov. 7	45	7		34
21	47	2		11
Dec. 5	48	7		13
22	48	6		1 loss."

"Feed regularly, as abundance of food will not make up for the loss arising from irregular feeding. Pigs know their feeding-time very accurately, and nothing retards their feeding so much as allowing them to be pining and weazening for their anticipated regular meal. Also mix a little salt with their food; keep the troughs and animals clean, their sties and beds dry and warm. Vary the bill of fare; in doing so, however, be careful not to lower the general standard of the diet; hogs do much better when their food is varied. Stores, brood-sows, and feeding-hogs should all be fed separately; two hogs will fatten better in company than separately.

"Hogs do better on cooked than raw food. Some instructive experiments on this point are recorded in the Highland Transactions. I have seen some hogs of the improved large Irish breed feed to very great weights on *raw potatoes alone*—the flesh good and firm; these are, however, rare instances.

"When the sow is suckling, she should have extra food; oatmeal, milk, and potatoes, or pea-meal, potatoes, and milk, are the best. At the time of forrowing she should be carefully watched, and the young ones removed; the placenta or after-birth ought also to be removed, otherwise she will devour it, and thus engender a morbid appetite, which may eventually cause her to devour her young. Abortion seldom takes place with the sow; the symptoms of such are similar to those of approaching parturition, but more intense. When this is likely to take place, a veterinary surgeon, if within call, should be requested to attend. As a general rule, a sow ought not to be allowed to breed after she has entered her fifth year, nor boars after the seventh.

"Swine are troubled with several diseases, the most common being a species of leprosy commonly known by the name of measles, which, and the other more serious diseases, would require a separate treatise to do justice to the subject."

"Arthur Young, in describing a flock of Southdown sheep at Mr. Howard's, near Bury St. Edmunds, incidentally alludes to that gentleman's hogs, and mentions one specimen, a fat sow that did not breed, as remarkable. This pig was,

		lbs.
1806.		
" Nov. 22.	Put to barley-meal, live weight, . . .	302
	1 bushel barley-meal.	
„ 29.	1 „ „	
Dec. 6.	1 „ „	
„ 13.	1 „ „	
„ 16.	Weighed alive, ...	364
„ 20.	1 bushel barley-meal.	
„ 27.	1 „ „ weighed alive, . .	380
1807.		
Jan. 10.	Weighed alive, ...	408
„ 13.	1 bushel barley-meal.	
„ 20.	1 „ „	
Total, . .	8 „ „	
Jan. 27.	The day killed, weighed alive, ...	443
„	„ „ „ dead, . . .	328

	lbs.		lbs.
The four quarters, .	299	Loose fat, . .	11
Head, ...	24	Pluck, . . .	16
Fat, ...	5	Offal, . . .	88
	328		443."

Respectfully submitted.

JOHN A. BECKWITH.
J. ROBB.

REPORT,

On Agricultural Warehouses and Agencies.

To the Secretary of the New Brunswick Society.

Sir,—As I have had an opportunity of having but one brief conversation with Mr. Boies, the gentleman with whom I was associated in the appointment of the Society at their meeting on 7th January last, and as the subject upon which we were required to report was at that time scarely more than just referred to between us, I have not been able to avail myself of his larger experience and closer observation in coming to any conclusion on the matter in question. I have, therefore, only to offer a few suggestions as the result of my own limited observation and reflection.

There can be no doubt but that a market might be found within this Province for much larger quantities of agricultural commodities than have hitherto been produced—while at the same time it is equally a fact that our farmers are discouraged from producing those commodities for which a demand does actually exist by the circumstance of not being able to find a ready and profitable sale for them.

This apparently anomalous state of things in this Province arises from the absence of those commercial facilities by which producers and consumers are brought into relation with each other through the means of intermediate parties and arrangements.

Up to the present time our merchants appear to have paid but little attention to the buying and selling of agricultural produce; what has been done by them in this way has been principally in the form of barter—as a sort of bye business and not as one from which they expected to derive their principal profits. The quantities thus disposed of have necessarily been small, while the farmer, in too many instances, has been made to feel that the purchase of his commodities was a favor to himself rather than a regular business transaction, the advantages of which were mutual, and placed neither party under an obligation to the other.

We have hitherto, so far as I have been able to learn, had no persons who have made it their principal or their exclusive business to buy and sell agricultural commodities, and to whom the farmers could look for a market for any quantities they might produce, and from whom consumers might expect to obtain supplies to any extent they might want. Thus, consumers have been compelled to look abroad for articles which might have been produced on as good terms within the Province, and would have been produced, could our farmers have been certain that they could have disposed of them advantageously.

Without going more fully into a consideration of the nature and extent of those disadvantages which arise from the fact that our agricultural capabilities, though sufficient for the purpose, yet supply only to a very limited extent our home consumption, I would beg the liberty of suggesting what has often appeared to me calculated, in a considerable degree, to remedy them.

The first thing I would propose then, in the way of accomplishing the object in view, is the establishment of agricultural agencies in the principal towns of the Province. These agencies should be conducted by persons who would take charge of all descriptions of country produce for the farmers, and sell it for them on commission. By an arrangement of this kind, the farmers would be saved much time and trouble in waiting or looking for purchasers, and as the agent would have constantly on hand a large supply of any one com-

modity belonging to the different farmers, persons wishing to make large purchases of such commodity would naturally apply to him.

A business of this sort would involve little or no risk to the parties engaged as agents, and require a capital of but very limited extent to carry it on. A commodious storehouse would be the principal thing wanted to commence with, and a good knowledge of the qualities of articles, diligence and activity in business, and tact in making bargains—the requisites to secure success. Grains of all kinds, butter and cheese, and various other articles of domestic manufacture, might thus be kept constantly in the market in such quantities as would attract the attention of wholesale dealers in these articles, and prevent them from looking abroad for a supply. In the winter season, too, dead meats might be brought in to form a part of their operations. There are three months in the winter season when these articles could be kept fresh and sweet in snow. The farmer might thus slaughter his animals in the early part of the winter and send them to the agent, who would dispose of them through the season as opportunity might offer, and a good price could be secured.

It will hardly be necessary for me to go more into detail as to the course to be pursued by each agency in the prosecution of the business which has been suggested, or to point out more fully their advantages to the farmer, or the prospect of their being a remunerative employment to the agent. All these questions can only be satisfactorily settled by experience; but it has long appeared to me to be an easy and practicable method of making the agricultural capabilities of our own country available for the supply of our home consumption to a much greater extent than has hitherto been the case.

I would suggest, in the next place, what appears to me a still better mode of proceeding, namely:—that persons should engage in the business in question on their own account. The buying up of country produce on a large scale for the purpose of selling it again for home consumption or for exportation, appears to me to offer as good inducements to persons wishing to go into business with a capital of £500, or upwards, as any that could be named. The salting and packing of beef and pork, the curing of hams, should form a considerable part of the operations of such persons, and experience would soon suggest the best and handiest modes of doing these, as well as many other particulars in reference to the management of the general business, which could hardly occur to a person until he became actually engaged in it.

I am satisfied that a few of these establishments in our principal towns would have a much better effect in stimulating the efforts of our farmers, and increasing the agricultural produce of the country, than any thing that may be done in the way of premiums and pro-

tective duties; they would in a little while cause farming to be regarded as a primary and principal business in the Province, instead of a mere subordinate one, a miserable dernier resort when everything else has failed, as has been the case heretofore; and they would further have the effect of both elevating the situation of the farmers in a social point of view, and increasing the profits of their labour.

Respectfully submitted.

SAMUEL W. BABBIT.

REPORT,

On the Provincial Agricultural Statistics.

To the New Brunswick Society, *for the Encouragement of Agriculture, Home Manufactures and Commerce.*

The Committee appointed to inquire as to and report upon the agricultural statistics of the Province, beg to submit what follows as their Report:—

The opinion has been frequently expressed that agriculture in this Province is in a very depressed state, and that the occupation of a farmer is not a remunerative one. The New Brunswick Society has therefore acted most wisely in directing an inquiry to be made in relation to the Provincial agricultural statistics, as the proper method of ascertaining the facts for present instruction, and of procuring an index to ulterior measures. In various departments of knowledge, it is conceded that men are wholly dependent on an accurate registry of facts for hope of further progress; but this seems to be peculiarly the case with respect to agriculture, for the impulses given by the isolated though acute observations of individuals appear to be now pretty well exhausted: men now a days look for stronger evidences of profit or utility than the *ipse dixit* of any individual.

The sources from which information is to be derived on the present occasion are almost exclusively confined to the able Report of Professor Johnston on the agricultural capabilities of the Province dated in December 1849, and such parts of the Provincial Census and Statistical Returns of 1851 as apply to the subject in hand.

It is gratifying to know that what is about to be written will exhibit no ground for discontent, but, on the contrary, much reason for thankfulness, and encouragement to renewed and increased exertions. At

the same time it appears not out of place to remind those who may feel disposed to institute more extensive comparisons than are here to be submitted, of a point which exerts a powerful influence on all commercial, manufacturing, agricultural and social relations. We refer to the difference of density in population, which is very remarkable when the contrast is made between this Province and any part of Europe, but more particularly Great Britain and Ireland.

The following table will fully exhibit the difference alluded to:—

	Eng. & Wales. 1841.	Scotland. 1841.	Ireland. 1831.	New Bruns. 1851.
Area in acres,	36,995,200	19,352,320	20,399,608	18,000,000
Population,	15,906,829	2,620,610	7,767,401	193,800
Acres to each individual,	*2.325	7.228	2.568	92.87
Same in cleared land,	,,	,,	,,	3.323
Pop. to square mile,	275	86.6	257.4	6.89

As a preliminary remark it is to be observed that the ratio of increase in population exhibited by the late census is 25.84 per cent. in eleven years, which exceeds the rate of increase in the four northern States of the United States by nearly 2 per cent. The increase in the number of families is upwards of 31¼ per cent.; in places of public worship 57⅞ per cent.; and in cleared land nearly 51 per cent. In horses, neat cattle, and sheep, owing to the late seasons of partial failure in the potato and diminution in the hay crops, the ratio of increase has scarcely equalled that of the population. In swine there has been a decrease of 32¼ per cent. which is distinctly traceable to the failure of the potatoes and corn, and to the opinion among farmers that the price of pork has ruled too low to be remunerative, or to encourage exertion to produce it: the time of the year at which the census was taken may also have affected the number.

With regard to the recent statistical compilations in general, it is to be observed that it ought scarcely to be expected that they should present the whole extent of the improvements or fail to aggravate apparent deteriorations, when it is recollected that the records of the census were, for the first time, intended to shew the names of each inhabitant and the extent of his possessions. There is reason to surmise that on the one hand the fear of direct taxation influenced many to understate the facts, and on the other that allowances were

* The period here and elsewhere in numbers, in this Report, is to be understood as the decimal period.

not made for accidental omissions, owing to the necessity of direct statements which the enumerators knew might be severely tested.

The point on which Professor Johnston was especially called on to report was the agricultural capability of the Province. In order to obtain the information which he could not derive from personal observation, he proposed a series of questions which were answered by upwards of sixty of our most intelligent and enterprising farmers. These answers he arranged and digested. They form the basis of all his calculations, and, so far as his authority is taken, they must answer the same purpose for ours.

When some parts of the statistics thus brought forward are carefully considered, for instance the yield of wheat in this Province compared with that of the wheat growing districts in the United States and in Canada, it must be confessed that many of our Provincial farmers and others doubt the perfect accuracy of the statements. To such individuals almost all the averages appear high and to want confirmation. Every one, however, ought to recollect that the averages deduced by Professor Johnston are in strict accordance with the voluntary statements of many of our most experienced farmers, and if they appear high it can only be in the estimation of that class of farmers and those conversant with them, whom it is the special object of all agricultural societies and general inquiries to rouse to a sense of duty and to elevate to the energetic status of the party whose opinions are impugned.

In regard to the general question of the capability of the Province to support its population, the answer returned has been, that not only is it capable of doing so, but if the lands were cultivated to the extent of which they are fairly susceptible, the following number of men and animals might be supported.

	Without reservation of land for fuel.	If half the fuel be grown on the land.	If all the fuel be grown on the land.
Men, Women, & Children	5,600,000	4,200,000	3,640,000
Horses, . . .	600,000	450,000	300,000
Cattle, . . .	2,400,000	1,800,000	1,200,000
Sheep and Pigs, .	5,000,000	3,750,000	2,500,000

Such is the theoretical capability of the Province. When we consider the actual circumstances, we find that there was a deficiency to the amount of £232,307 sterling in the value of articles raised in 1851 necessary for the supply of the Province.

The following is the account of the particulars taken from the Custom House accounts of imports and exports for 1851. It will serve as a distinct invitation to exertions in specific directions.

Articles Imported.	Value in Sterling.
Bread,	£1,294
Wheat and other grains,	49,000
Wheat Flour,	97,932
Rye Flour,	1,599
Meal,	7,218
Fruit and Vegetables,	8,838
Live Stock,	18,829
Salted Meats,	27,962
Hides,	7,273
Tallow,	7,276
Candles and Soap,	1,756
Butter, Cheese and Lard,	3,330
Total,	£232,307.

To many this amount may appear discouragingly large. It is, however, 23 per cent. less than the imports for similar articles in 1840. A slight increase of agricultural exertion, therefore, and facilities for packing, storing and forwarding, are in fact all that is required to exclude such imports, which, with the exception perhaps of wheat, are discreditable to the Provincial agriculture.

In no respect do the facts elicited by Professor Johnston warrant unfavorable conclusions respecting farming operations.

The following table of average weights indicate a capacity in the soil and climate to produce grain of a very superior quality:—

COUNTIES.	Wheat.	Barley.	Oats.	Rye.	Buck-Wheat.	Maize.
Saint John,	61	—	41	—	50	—
Westmorland,	60	48	35½	—	48	59
Albert,	58	50	34½	50	45	—
Charlotte,	59	45	38	—	57	59
King's,	59½	48	37	—	48	60
Queen's,	58½	50	36½	53	43	61
Sunbury,	57	55	38	53	47	57
York,	63	50	38	—	51	60
Carleton,	64	—	38	—	52	65
Kent,	63	—	37	—	50	—
Northumberland,	62	53	37	—	45	57
Gloucester,	63	51	39	—	—	—
Restigouche,	63	48	42	—	—	—

The general average weights for the whole Province are, for

Wheat,	60 11-13 lbs.	Buckwheat,	48 8-11 lbs.
Barley,	50 do	Indian Corn,	59½ do.
Oats,	38 do.	Potatoes,	63 do.
Rye,	52½ do.	Turnips,	66 do.
		Carrots,	63 do.

The annexed statement shows not only the average yield per acre of each description of crop, but affords an opportunity of contrasting it with the like products in the State of New York:—

Average Produce per Imperial Acre.

	New Brunswick.	State of New York.
Wheat,	20 bushels.	- - - 14 bushels.
Barley,	29 ,,	- - - 16 ,,
Oats,	34 ,,	- - - 26 ,,
Rye,	20½ ,,	- - - 9½ ,,
Buckwheat,	33¾ ,,	- - - 14 ,,
Indian Corn,	41¾ ,,	- - - 25 ,,
Potatoes,	226 ,,	- - - 90 ,,
Turnips,	460 ,,	- - - 88 ,,
Hay,	1¾ tons.	- - - —

The yield of Butter and Cheese is stated as follows:—

BUTTER.		CHEESE.	
Per week, - -	5½ lbs.	Per week, - -	11 lbs.
For the season,	89½ ,,	For the season,	140¾ ,,

From these tables it would appear that the productiveness of the Provincial lands is beyond question. A possibility of error in striking the averages is suggested in the Report; and to guard against it the following statement of the averages derived from the minimum returns is given, viz.:—Wheat, 17¾ bushels; barley, 27; Oats, 33; Buckwheat, 28; Rye, 18; Indian Corn, 36½; Potatoes, 204; Turnips, 389. These diminished averages scarcely affect the question of productiveness, as in every particular they exceed the averages for the favored Genesee Valley and the southern shores of Lake Ontario.

While the productiveness of the soil is thus proven by the statements of our most experienced farmers, the average prices appear to be equally favorable to the Provincial growers. The following tables of averages set this in a clear point of view:—

Average prices of Grain per Bushel and per Quarter.

	Per Bushel.	Per Quarter.		Per Bushel.	Per Quarter.
Wheat,	7s. 6d.	60s. 0d.	Rye,	4s. 10d.	38s. 8d.
Barley,	4 2½	33 8	Buckwheat	3 9	30 0
Oats,	2 0	16 0	Ind. Corn,	4 8	37 4

Root Crops and Hay.

Potatoes,	1s.	11d.	per bush.	Carrots,	2s.	5d.	per bush.
Turnips,	1	2	„	Man. Wurtzel,	2	1	„
Eng. Hay,	49	0	per ton.	Marsh Hay,	20	0	per ton.

Manufactured Products of the Farm.

Beef,	3½d.	per lb.	Cheese,	5½d. per lb.
Mutton,	3¼	„	Butter,	9¾ „
Pork,	3½	„		

Average Money value of an Acre of each Crop.

	New Brunswick.			Canada West.			State of Ohio.		
Wheat	£6	13	0	£2	4	7	£2	19	0
Barley,	5	13	7½	1	19	4½	2	4	0
Oats,	6	3	6	1	11	0	1	13	9
Rye,	4	7	0	1	5	10½	1	12	4
Buckwheat,	5	5	0	3	5	0	1	16	3
Indian Corn,	8	10	4	2	14	4½	2	15	0
Potatoes,	19	11	0	6	6	0	6	9	4½

On a review of the foregoing and other tables, Professor Johnston has drawn the following conclusions:—"That grain and roots generally can be raised more cheaply in this Province than in New York, Ohio, or Upper Canada; and that this Province ought to be able to compete with these countries and drive them from its home markets." Such are the deductions of a skilful and scientific, practical and theoretical agriculturist, from the statements furnished by the most enterprising and successful of our own people. Nevertheless, we cannot conceal a doubt whether all the elements of comparison have been duly weighed. The result, especially as regards wheat, is so contrary to preconceived opinions, that we feel constrained to recommend further investigations. Is it not possible that, while an equality of expense in preparing the land for a wheat crop appears to have been assumed, the great care and expense necessary in New Brunswick to prepare the land, and an occasional succession of minimum returns, would, to a very considerable extent, account for the supposed discrepancy?

The question of weather has also been examined, with the following result:—

The average duration of summer is - -	6 months 22 days.
Average period of growth of crops, - -	3 „ 17 „
Leaving for the spring and autumn ploughing, &c., before seed time and after reaping, -	3 „ 5 „
Average latest ploughing, - - - -	17th November.
Average earliest sowing, - - - -	21st April.

Various other questions, intimately connected with the agricultural statistics, are taken up, examined and discussed in Professor Johnston's Report; but as that document is as accessible as it is probable the result of this inquiry can be made, it appears unnecessary to dwell upon them.

The price of labour varies greatly throughout the Province; but the average is said barely to exceed the wages paid to good farm servants in the best farmed districts in Scotland, while much of the work is done in an inferior style.

With respect to a profitable return from the expenditure of hired labour, the persons consulted by the Professor appear to have been nearly equally divided. He himself inclines to the affirmative side, and in conclusion he pertinently asks, "whether some of the lighter descriptions of labour might not with as much propriety be performed by females as labour in foreign cotton and weaving factories to which so many of our females now eagerly devote themselves."

The following is a summary of the agricultural statistics for each County, extracted from the Census Returns of the past year:—

COUNTIES.	ALBERT.	CARLETON.	CHARLOTTE.	GLOUCESTER.	KENT.	KING'S.	NORTHUMBERLAND.	QUEEN'S.	RESTIGOUCHE.	SAINT JOHN.	SUNBURY.	VICTORIA.	WESTMORLAND.	YORK.	TOTALS.
Inhabitants,	6,318	11,108	19,938	11,704	11,419	18,842	15,064	10,634	4,161	38,475	5,301	5,408	17,814	17,636	193,800
Persons engaged in agriculture,	560	1,333	1,431	1,398	1,770	2,625	1,517	1,321	394	764	650	652	2,945	1,841	18,601
Acres cleared land,	38,210	55,537	45,656	19,912	35,496	120,923	30,221	63,719	8,895	21,725	15,587	26,834	92,822	69,017	643,954
Hay, tons,	14,298	15,718	17,076	6,835	8,067	38,811	14,150	22,556	3,330	6,555	10,069	6,961	33,937	26,430	225,093
Wheat, bushels,	6,136	21,165	3,263	23,595	25,256	14,895	30,854	7,222	6,426	249	5,551	5,262	40,619	16,142	206,635
Barley, do.	3,516	8,542	7,206	8,078	4,375	5,417	4,894	328	2,773	510	973	7,979	15,270	4,539	74,300
Oats, do.	30,326	234,638	69,988	53,005	99,120	178,908	120,366	97,359	46,517	30,961	40,024	59,163	145,396	205,343	1,411,164
Buckwheat,	31,815	131,462	14,304	1,296	11,377	206,251	8,339	89,475	57	9,758	21,911	44,730	55,504	62,765	689,004
Indian Corn,	343	14,650	409	2,223	3,226	2,958	1,296	8,507	3	168	7,170	824	2,270	18,178	62,225
Pease and Beans,	1,056	7,103	1,999	1,258	1,155	4,210	3,855	2,771	1,134	255	1,378	2,824	1,763	6,842	42,663
Turnips,	13,973	73,596	72,419	15,409	22,901	84,539	51,306	28,925	14,359	34,438	17,343	9,195	56,869	44,616	539,803
Potatoes,	124,596	174,416	163,117	314,447	365,619	303,568	269,436	168,656	66,131	105,695	116,357	84,527	282,224	233,695	2,792,394
Other Root Crops,	1,447	2,235	6,009	68	1,051	9,142	3,686	2,476	282	8,018	2,682	271	3,989	6,524	47,880
Neat Cattle,	5,146	8,072	8,575	3,980	5,432	18,295	8,868	10,612	2,072	3,738	4,475	3,709	11,725	11,594	106,263
Cows,	1,998	4,026	4,720	2,015	2,529	8,463	4,238	4,710	979	2,417	2,125	1,713	5,317	5,705	50,955
Butter, pounds,	142,187	237,172	441,522	82,691	83,171	506,292	202,637	242,349	56,351	102,716	105,704	78,467	322,335	447,395	3,050,989
Horses,	852	1,812	1,607	1,174	1,507	2,988	1,628	1,514	527	1,219	849	886	2,981	2,440	22,044
Sheep,	7,711	14,361	11,846	8,552	9,692	31,235	10,602	16,040	3,026	3,747	6,688	6,951	20,853	16,734	168,036
Swine,	1,674	3,093	2,336	3,817	5,859	7,338	3,397	3,028	1,055	1,550	1,084	3,423	6,416	3,872	47,932
Maple Sugar,	62,235	37,520	700	21,157	44,154	37,801	5,381	5,587	4,590	10	1,574	55,686	43,485	31,077	350,957
Cloth, yards,	32,378	63,274	35,684	20,853	43,105	98,427	43,872	59,263	7,432	11,012	25,957	16,022	95,245	70,930	622,237

The principal document exhibits, with other things, similar particulars for each Parish in the Province; and by acts of simple division applied to the Parish or County statistics the knowledge of important facts may be obtained. A table might indeed be constructed which would show the rank in productive industry of each Parish and County in the Province. This would, however, be a much more extensive inquiry than the limits of this paper admit of or present circumstances demand.

The value of the annual agricultural industry is important, but it is frequently either overlooked or under estimated.

The following estimate is based on the quantities specified in the preceding extract, and the prices or values before inserted:—

Hay,		£551,478
Wheat,		77,488
Barley,		15,634
Rye, (estimate)		15,634
Oats,		141,116
Buckwheat,		129,188
Indian Corn,		14,014
Pease and Beans,		21,332
Turnips,		31,489
Potatoes,		267,604
Other Roots,		5,386
Butter,		123,944
Soap and Candles,		15,000
Maple Sugar,		4,387
Woollen Cloth,		85,558
		£1,499,252
ADD		
One-sixth value of Horses,	£55,110	
One-fifth value of Neat Cattle,	106,263	
One-third value of Sheep,	43,000	
One-half value of Swine,	29,957	
Value of land annually cleared,	98,790—	333,120
Total amount,		£1,832,372

To this estimate a very considerable amount might with propriety be added for farming implements, wagons, sleds, sleighs, &c., of domestic manufacture; and when to this a further addition is made for the substantial improvements on old clearances, the aggregate value of the annual agricultural industry cannot be less than two million pounds currency, that is eight million dollars, or one million eight hundred thousand pounds sterling. This amount it is to be

observed allows upwards of £100 currency to every male inhabitant returned as engaged in agricultural pursuits, or upwards of £65 per annum, if to the number of the former are added the 9,448 males returned as ordinary labourers. To this large annual amount of agricultural industry is to be attributed the superior domestic comfort, and the many opportunities of social enjoyment, which the farmers of this Province possess beyond those which fall to the lot of persons in the same sphere of life, not only in Europe—the condition of whose farming population will not bear a comparison with the condition of that of New Brunswick—but in the adjoining States and Provinces.

To inquire as to the sufficiency in quantity and quality of the crops for the comfortable sustenance of the inhabitants would be an invidious task and scarcely within the scope of the duty of this Committee: it is sufficient that the quantity and kind of what is raised be pointed to. Severe strictures are found in many reputable books, on the cultivation and use of buckwheat as human food. A very considerable quantity is raised in this Province, but at present there is no danger of the inhabitants relying on this or any particular grain or root as an exclusive aliment.

The article of butter however, is intimately connected with good husbandry and is deserving of special inquiry.

A cow's yield of butter on the continent of Europe is set down at from 140 to 390 lbs. per annum, or of whole milk cheese from 280 lbs. to 780. Good cows in England are said to yield from 300 to 400 lbs. of Butter, or from 600 to 800 lbs. of whole milk cheese.

In Cheshire the average yield of cheese is about 336 lbs. per annum for each cow. In the State of New York, 226 lbs., 350 lbs., and even 680 lbs., and in some years 714 lbs. per cow, in particular districts and dairies, have been obtained. In 1844, however, the average yield for the whole State in which about 1,000,000 cows were milked was estimated at 110 lbs. This is 30 lbs. less than the average quantity deduced by Professor Johnston from the statements made to him.

In Ayrshire it is said to be common for a good cow to give 260 lbs. of butter, and cows of superior quality yield still more. In New York State, in 1848, 40 cows yielded an average of 160 lbs. of butter; but in 1844, the average for the whole State was only 79½ lbs. being exactly 10 lbs. less than what was reported to Professor Johnston by our own farmers.

Admitting the accuracy of the last statement, the dairy business of the Province cannot be said to be in a very backward state; 30 lbs. of cheese, or 10 lbs. of butter, per annum, for each cow, over and above the averages for the State of New York, is not bad. When, however, we look at the larger yields obtained where particular

attention is paid to breeding and feeding, there is room for much improvement. Too much attention cannot be paid to this subject. It is difficult to paint on the mind's eye a cow yielding from 300 to 400 pounds of butter per annum; but as such results are obtained by care, and the produce is in fact equal to that of six or seven ordinary cows, it is equally difficult to conceive what class of agriculturists is not interested in the subject.

When we turn to the statistical information collected last year, the general average yield of butter appears to be only 59¾ lbs. for each cow, and the yield ranges from 32¾ lbs. in the County of Kent to 93½ lbs. in the County of Charlotte.

The following table exhibits the average yield of butter of each cow in the several Counties:—

Charlotte,	93.54 lbs.
York,	78.42 „
Albert,	71.14 „
Westmorland,	60.62 „
King's,	59.82 „
Carleton,	58.91 „
Restigouche,	57.56 „
Queen's,	51.45 „
Sunbury,	49.74 „
Northumberland,	47.81 „
Victoria,	45.81 „
St. John,	42.50 „
Gloucester,	41.04 „
Kent,	32.89 „
Average for the whole Province,	59.88 „
Allowing to each man, woman, and child,	15.75 „

No account was taken of the yield of cheese.

With the exception of the County of Charlotte, the yield in no County appears to come up to the reports made in 1849, and instead of being 10 lbs. in advance of the State of New York, it appears that in the article of butter this Province is 19.63 lbs. in arrear of the annual average yield for each cow in that State.

The difference in the annual yield of the cows in the County of Kent and its adjoining Counties—Northumberland and Westmorland—is too great not to create a doubt as to the accuracy of the accounts. It is difficult to assign adequate causes for the difference between the yield in Charlotte and Carleton, Queen's or Sunbury. In some of the Counties, it is true, a considerable quantity of cheese is manufactured; and as neither the law nor the form of return required an account to be taken of it, it is just possible that the averages

of these Counties appear low in proportion to the quantity of cheese made in them.

On consideration of the statistics given to Professor Johnston, and those recently collected under Act of Assembly, it is impossible that the inquirer can conceive that he has attained the exact truth. He may not doubt that enthusiastic farmers have realized crops and other produce in the quantity and of the quality specified; but on inspecting the grain and other produce offered for sale, and making personal inquiries, he cannot fail to desire that accounts were perseveringly taken at short intervals for the purpose of comparison. By this means alone can doubts be resolved, and truth ascertained. By such returns would be shewn how enterprising and intelligent farmers carry their average produce above their duller neighbours.

Except in the article of wheat flour, there can exist no doubt of the capability of the Province to yield an abundant supply of agricultural produce of the best quality. This opinion is as universally entertained as it has been repeatedly expressed. On comparing the quantities raised and the quantities imported, the balance is in no way discouraging; it is gradually diminishing, and with a slight increase of well directed exertion it might be made speedily to disappear.

Were a sensible man determined to make his income and expenditure balance each other, he would most undoubtedly have recourse to the keeping of exact accounts. So it must be with the farmers as individuals and as a body. The guessing system of husbandry has exhausted its energies. Nevertheless a farmer can seldom tell the number of acres of land in his fields, or how much seed or manure he has applied to the acre. To thrifty feeding, tested by weight or measure, he is almost a stranger. The cost and yield of crops is in nine cases out of ten a perfect mystery. The general fact that on the whole year's transactions he is "about square," or has gone "a little ahead," or fallen "in arrear," is all the exactness that is aimed at. This certainly is not the way in which a vigorous effort is made to accumulate wealth, or to accomplish a desirable object. The profits of a crop are as often lost in improper methods, or unnecessary expense, attending the raising of it, as in the lowness of the market price. Over the latter, individual farmers can exercise no efficient control; over the former each can be as scrupulously exact as he chooses. With a set of weights and measures, and a memorandum book or journal, the keeping of farm accounts is much more simple, than is generally supposed. A half sheet of foolscap per annum is sufficient to keep such a crop record, in the shape of a farm plot, as may secure a regular rotation. The quantities of

manure, seed, labor, wages, milk, butter, feed, together with returns from sales, &c., &c., may be entered in an ordinary memorandum book, to be posted to separate accounts at such times as may be found convenient or necessary; an employment which is very instructive and calculated to induce beneficial trains of thought, and in many points can be engaged in as well by the junior as the senior members of a family.

Over the accounts and exertions of individual farmers this Society can exercise no control. The impossibility of correctly judging of the properties of cattle, or the sufficiency of particular means with respect to crops, without a record of the facts on which the judgment ought to be based, may be from time to time impressed on the public mind. But the facts that can justify any special recommendations applicable to the whole Province, or large sections of it, can at present be collected at the instance only of the Legislature, or perhaps through the County Agricultural Societies. Decennial returns are at too long intervals to be of much service. A period of fifty years would elapse before the forms would be perfected, and the people prepared to give the desired information with sufficient exactness; and in the meantime as little practical use could be made of the returns as of those of which the public are in possession. As examples of imperfection, the omission of "rye" and "other grain," may be quoted with reference to the last returns, and of the quantity of wool in connexion with the number of sheep.

Three classes of advantages are secured by demands for periodical agricultural returns. 1st. Individual farmers are led to keep such accounts as enable them to answer the questions proposed, and when the attention is once aroused, there is a strong probability that many will be induced to examine the conditions on which the best results can be obtained. 2nd. A beneficial rivalry for superiority in products as to quality and quantity, is excited among neighbouring districts. 3rd. The Legislature and societies are enabled to direct the energies of the people into the channels which are most promotive of the general good.

The collection and management of annual or biennial returns by special officers under the authority of the Legislature, is perhaps too expensive to be adopted at present. The same objection and difficulty cannot arise in accomplishing this desirable object by means of the County Agricultural Societies and the Parish School Teachers. In 1845, J. A. Beckwith, Esq., Secretary of the York County Agricultural Society, procured a surprisingly complete and creditable set of returns through the means of the Parish School Teachers; and it is deserving of the serious consideration of this Society, whether means should not be adopted to procure returns in a somewhat similar manner. As regards the Teachers, few means are better

calculated to raise them in general estimation, or to open a wider door for the ingress of new ideas than the employment which has been suggested. Under Mr. Beckwith's requisition many of them acted with zeal and intelligence, and there can scarcely be a doubt that the same result would follow every renewal of a similar attempt. To give the idea a specific form, it is now suggested that annual returns of agricultural products and industry for Parishes should be collected and compiled by the Teachers; that the County Returns or Abstracts should be prepared under the direction of the Agricultural Societies, and that the General Abstract should be framed either in one of the Government offices, or under the auspices of some one of the principal Societies; this is a duty that might very properly be assumed by this Society.

All which is respectfully submitted.

J. GREGORY.
J. ROBB.

REPORT,

ON THE INDUSTRIAL EXHIBITION,

Held at St. John, on September 9th, and following days, 1851.

To the NEW BRUNSWICK SOCIETY *for the encouragement of Agriculture, Home Manufactures and Commerce, throughout the Province.*

On the 11th of June, 1851, W. J. Ritchie, M. P. P., the President of the St. John Mechanics' Institute, made application to the New Brunswick Society for "any suggestions or assistance which they might be disposed to offer" towards an Exhibition of Provincial Domestic Manufactures, to be held on the 9th September following, under the direction of a Committee of the Institute.

With a view to shew our good will and desire to promote the contemplated undertaking, the Society granted the sum of £15 to be appropriated under the form of discretionary premiums for articles exhibited at the forthcoming Show, and appointed the undersigned a Committee to award the same for such objects as came within the scope of our Society—and generally to assist in forwarding the proposed Exhibition.

This Society had previously considered and sketched out the plan of a Provincial Show and Fair to be held at Fredericton in October, 1852, (*v.* Reports, p. 194,) and it was now thought desirable to examine more closely into the subject, and consider its bearings in connection with the experiment about to be made under the direction of the Mechanics' Institute of St. John.

One of your Committee (the Vice President for St. John,) likewise brought the subject before the St. John County Agricultural Society, of which he is the President, and secured a grant of £15 to be appropriated under the same direction as the other, in discretionary premiums for articles of importance to the agricultural interests of the country.

The Exhibition was opened by His Excellency Lieutenant Governor Sir E. W. Head, Bart., &c., &c., on Tuesday, 9th September, and thereafter the Exhibition building remained open to the public for nearly a fortnight.

This exposition of the various objects of Provincial manufacture has, in the opinion of your Committee, reflected very great credit upon the spirited individuals who undertook it, and has proved, as far as time and means would allow, eminently successful.

Much more has, in fact, been effected than could have been supposed possible, from the limited means at the disposal of the Directors, and from the very short notice which had been given of their intention to hold such an Exposition of Provincial industry in the course of the present year.

The effect of the Exhibition has been to give to the many thousands who visited it a higher opinion of the resources of the Province, and a most decided conviction of our ability to manufacture articles which hitherto have been almost altogether imported.

In no department is the proof of this more striking than in that of edge-tools, and that of agricultural implements—until very recently the former have been almost wholly imported from England, and the latter from the United States—the specimens exhibited seemed to be in every respect as good, as well finished, and as cheap as the imported articles.

We have no doubt that this effort on the part of the directory of the St. John Mechanics' Institute will (in the words of their own address, to His Excellency the Lieutenant Governor,) "inspire our artists, mechanics, and agriculturists with more confidence—induce habits and feelings of self-reliance—stimulate a generous rivalry—tend to improvement in the several departments of industry—and inspire the people at large with a better opinion of what can be done at home, and thereby lead to the encouragement of home industry, by affording a market and making the labour of our productive classes remunerative." But furthermore, we conceive that the recent Exhibition has created a desire for such exhibitions on a larger scale, and at fixed intervals of time, so that it behoves us to consider again how this idea can be best and soonest reduced to a practical form.

The attention of the Legislature has already been called to the subject by this Society, and we trust that measures will be taken to press the same again upon the representatives of the people at their next Session of Assembly.

We cannot regard the recent Exhibition as having been complete in the department of agricultural produce. In consequence, we believe, of a circular addressed by the Secretary of this Society to the Presidents of the various County Agricultural Societies throughout the Province, some contributions came in from the out-Counties; still, on the whole, the farm produce was almost wholly from the County of St. John—of that even there was not a very great display, probably on account of the harvest being unfinished.

We consider it to be of the highest importance that there should be a Provincial Agricultural Exhibition on a large scale each year, along with the Exhibition of Manufactures, and this can only be done effectually after the period of the County Agricultural Shows—say in the second or third week of October. In reference to this subject,

nothing can be more appropriate than the words of His Excellency, at the opening of the Exhibition—"The object of primary necessity," said His Excellency—"the first great object to be attended to in every country, is food. You must first grow food, all besides is of secondary importance; the Exhibition, therefore, of agricultural produce, must be that of the greatest interest and most importance to this country at present."

Your Committee would also advert to the propriety of holding such Shows at different places from year to year, so as to carry the same laudable feelings and results home into every section of the Province.

The building in which the Exhibition was held, seemed to be extremely well adapted for the purpose, and was highly creditable to the architect and builders; its general features seemed to be derived from the Palace of Industry in Hyde Park, London: henceforward we conceive that Mr. Paxton's celebrated building will offer the best model for all such undertakings, and it may soon come to be considered whether there should not be permanent structures for such purposes in all large towns and cities.

Let us hope that the shows of mountebanks and monsters have disappeared, and that henceforward our holidays shall be devoted to the examination of the products of our national skill and industry—and not to gazing at the stupid tricks of tawdry tumblers, and fallacious fire-eaters—resplendent though they be in all their blazonry of spangles and tinfoil.

Your Committee cannot but regret that measures were not taken in time to have had such a Show prior to the great Industrial Exhibition in London, and thereafter to have dispatched our contributions to the World's Fair. On looking over the official catalogue of the Colonial contributions to that great Show, your Committee cannot help feeling that New Brunswick might have been almost as well represented there as any other of the British North American Colonies.

More might have been got together, even for the present occasion, as your Committee conceive, if a schedule of the various articles expected had been generally disseminated throughout the country, and such a schedule, on the basis of the one issued by Her Majesty's Commissioners, ought to be issued some months before the next Provincial Show is undertaken.

Owing to the late period up to which contributions were received for the St. John Show and Fair, it was hardly possible to classify them properly upon the ground, or to make out a good classified catalogue; and accordingly the official catalogues, (of which a copy is annexed,) issued by the Directors, offer us but little assistance in this matter. We may, therefore, be excused if we now offer a simple classification of such objects as specially interest us, although it is not

by any means to be regarded as a complete classification of all the objects in the Exhibition:—

Class 1. Raw Materials,
- Section A, Mineral,
- " B, Vegetable,
- " C, Animal.

Class 2. Manufactured Products,
- Section A, Domestic,
- " B, Agricultural Implements,
- " C, In Wood,
- " D, In Metal,
- " E, In Leather,
- " F, Miscellaneous.

Class 3.—Products of the Imitative Arts.

As it may be of some interest to this Society to preserve a record of certain articles exhibited at this first public Show of our Provincial resources, art, and industry, we shall make a few brief remarks upon such as more particularly claim our attention.

Class I.—RAW MATERIALS.—Section A.—MINERALS.

The Exhibition was by no means complete in this department, although the Museum of the Institute, which was thrown open to the public, contains a great variety of the useful Minerals of the Province. We could wish to have seen at a glance, a series of the Provincial Rocks and Minerals of economic importance, and shall expect it at some future Exhibition. The Minerals exhibited on the present occasion were, many of them, of considerable interest. We may mention—

A mass of native *Black Lead*, of which a large and valuable vein exists near Indian Town, and is now profitably mined by a Joint Stock Company.

Samples of *Prepared Black Lead*, exhibited by the St. John Black Lead Mining Company: this article seems well adapted to supply all the wants of our Provincial housekeepers.

Asphaltum or *Asphaltic Coal*, (for there is a doubt as to its true nature,) is a valuable Mineral, mined by a private Company in the Parish of Hillsborough, Albert County, and is already largely in demand for the manufacture of Gas.

Soft Bitumen, or *Naptha*, from the Petitcodiac, where it issues from the earth in a liquid form, and afterwards hardens by exposure to air.

Asphaltic Shale, from Albert and Westmorland Counties: this is an article, the use of which in making gas, waterproof cements, pavements, &c., is increasing every day.

Mineral Paint, (an earthy oxide of iron, or ferruginous earth,) from Shediac: this substance occurs in various parts of the Province,

and is yet destined to replace all the forms of ordinary paint as a covering for wood work, &c., exposed to risks by fire. This present sample was exhibited by the Messrs. Gilbert.

Mineral Paint, (an earthy oxide of Manganese,) from Albert County; an article which may yet be brought into use.

Black Lead, we may observe, is considered to be a good kind of mineral, or fire-proof paint; and we would suggest to the St. John Black Lead Company, that they should make some experiments upon the subject.

Alabaster, or *White translucent Gypsum:* this is another of the varied mineral products of Albert County; we observe specimens of it now for the first time on public exhibition, with great satisfaction; there is a square block of it, a vase turned from it, by Mr. McCoach, and a head carved in *alto-relievo*, on the same material, by Mr. Foulis. Its admirable purity and general qualities are well seen in these specimens, but none of them exhibit the beautiful polish of which it is susceptible.

There is also a magnificent group of *Chrystals of Gypsum*, from King's County, but their economic value is small as compared with the massive form from Hillsborough.

Lime.—There is a cask of beautiful white Lime exhibited. This is one of our staple productions, and the St. John Lime is unsurpassed for its purity and general fitness for the purposes of the builder. The Limestone contains less than two per cent. of impurities.

Salt, by Joe Brand, of Sussex Vale: this Salt is of first rate quality for farmers' purposes, and we are much pleased to learn that its manufacture has been resumed at the springs, and that Mr. Brand is enabled to sell it as low as the imported salt.

Honestones, from the Kennebeckasis: these seem to be of good quality, and work either with water or oil. They *bite* well, and will compete with the Honestones of Woodstock or Miramichi, which are now coming into repute.

Lead Ore.—Of this there are samples from King's and Charlotte Counties, and *Iron Ore* from one or two places; but no information is given as to the probable supply from the various localities.

The samples of *Iron and Steel*, from Woodstock, seem to be of the very first quality: the Iron has been bent and twisted, *when cold*, in every direction, but without showing the least injury to the fibre. It would be hard to devise a more complete proof of the quality of the article. We understand that the manufacture of Woodstock Iron will now be carried on vigorously by a Sheffield firm, who have become aware of its admirable qualities and adaptation for the making of Steel.

Pipe Clay.—This article is from Albert County, and is exhibited by Mr. Foulis. It has a very good colour, and seems to be well adapted for the manufacture of Stoneware, &c.

SECTION B.—VEGETABLE, *including portion of the Agricultural Produce, and samples of native Woods.*

A summary of the Agricultural Produce in the Exhibition, is as follows:—

Wheat, (22 samples)—the best sheaf was exhibited by Dr. G. P. Peters.

Barley, (10 samples)—the best sample was exhibited by Mr. J. Harrison.

Oats, (16 samples)—the best sample was exhibited by Mr. Clarke, of Simonds.

Buckwheat, (2 samples.)

Timothy, (2 samples,)—very fine, by Messrs. Nichols and Cother.

Corn, (2 samples.)

Peas,—field—(5 samples.)

Potatoes, (5 samples,)—the best by Messrs. King and Long.

Turnips, (5 samples,)—the best by Dr. Waddell, of the Lunatic Asylum.

Field Beet, (5 samples,)—the best by L. Donaldson, Esquire.

Flax, (1 sample,)—by Mr. Brown, of Lancaster, very fair.

Hemp, (2 samples,)—about nine feet high, very luxuriant, by Mr. James Dunn, St. John.

Carrots, (5 samples,)—best by L. Donaldson, Esq., St. Andrews.

Cauliflower, (2 samples,)—those from Chief Justice Chipman's garden were magnificent.

Cabbage, (3 samples,)—by the Chief Justice and Mr. Thurgar.

Manufactured Barley,—An excellent sample, by Mr. P. McFarlane, of Fredericton.

Maple Sugar,—one sample, by J. Parlee, of Sussex Vale.

There were twelve specimens of native Woods exhibited. They were very good proofs of our resources in this department, but we shall yet look for a more complete series.

SECTION C.—ANIMAL.

Butter, (6 samples,)—the best by Mr. R. K. Trueman, of Westmorland, and by Mr. King, Sussex.

Cheese, (4 samples,)—the best by Mr. M. Trueman.

Honey.—The exhibitors of Honey, were E. Wilmot, Esq., of Fredericton, and L. Donaldson, Esq., of St. Andrews.

The sample from Fredericton weighed 22 lbs., and in quality surpassed anything of the kind which we have seen. Honey is one of the articles which we commend to more general attention, and both exhibitors assure us that there need be no difficulty in propagating hives of busy bees to any extent in New Brunswick.

Leather.—There were excellent specimens of Leather exhibited by Mr. Brundage and others. It was as good as need be, and we

trust that its manufacture among us will receive all due encouragement.

CLASS II.—MANUFACTURES.—SEC. A.—DOMESTIC MANUFACTURES.

The most notable article in this department was a pair of *Blankets*, by Miss E. Fairweather, of Norton; they attracted general attention, and we had great pleasure in awarding to them an honorary premium. We hope soon to see many more pairs of similar articles; and if they can be made as well as those shown by Miss F. (and why should they not?) we are sure that they will compete effectually with anything of the kind which can be imported.

Towelling from native flax; of this there were only three samples, by Mrs. Austin, Miss Pender, and Mrs. Secord; they were of excellent quality, and highly creditable to the virtuous industry of their makers; but why, in the name of all that is laudable, why were there no others? The growing and weaving of flax ought not to be so neglected among us. There was but one specimen of flax exhibited; hereafter we shall expect many more. There were several specimens of *Home-spun Woollen Cloth*, but we might have expected finer qualities, and a greater variety. We feel assured that if any one will supply us with home-spun or Provincial made cloth of a little better quality than that which is commonly on sale, everybody will be found to wear it.

There were also very fair specimens of *Shawls*, *Mittens*, *Coverlids*, *Carpeting*, *&c.*, but the exhibition of these articles has been often surpassed at the County shows, and we may reasonably hope for some improved styles hereafter. There were a variety of *Sewed Rugs*, all creditable to the industry of their fair makers—No. 262, by Miss H. Wisdom, particularly so.

No. 171 was a "*Leghorn Bonnet*," by Miss Pender. This example ought to stimulate others, and we know that grass bonnets equal to the Tuscan may be readily made from the N. B. grasses: the manufacture is extending, and we trust that every encouragement will be given to it.

SECTION B.—AGRICULTURAL IMPLEMENTS.

The exhibition of Agricultural Implements, as already said, was very satisfactory, and excited general admiration.

Ploughs of Iron, viz., Swing, Drill, and Sidehill Ploughs, by Messrs. Nicholls, Smith, and Harris & Allan, equal in almost every particular to the imported articles.

Ploughs of Wood and Iron, on the American model, were shown by Messrs. Harris & Allan, Everitt, Todd, of Fredericton, and Barker, of Sheffield.

Enough was exhibited to convince us that we need import ploughs

no longer—save, perhaps, for the model. An excellent *Seed Sower*, of the newest pattern, by Harris & Allan; a *Cultivator*, by the same, and by G. Todd, of Fredericton; a Drill-harrow, by Mr. W. Smith, Marsh-road, are most serviceable implements, and strongly recommended to the farmers of New Brunswick.

Forks, Hoes, and Potato-diggers were exhibited by Messrs. Broad, of St. John, by T. G. Allan, of Fredericton, and by Mr. McFarlane, of Fredericton. The workmanship of Messrs. Broad and Allan in particular was of the very best kind, and in temper and finish they seemed to be quite equal to those which are usually imported. The most meritorious article in this department, perhaps, was the *Double Railroad Horse-power and Thrashing Machine*, after the model of Emery, of Albany; this was exhibited by Harris & Allan, and is, probably, the first ever exhibited in this Province; the power can be applied to a variety of purposes, and may be made to thrash between 200 and 300 bushels of oats in a day.

The employment of agricultural machinery is extending, and we hope soon to see horse powers in more general use. Labour-saving machines such as these, are, in fact, more required here than elsewhere, the price of farm labour being so high. The price of this horse-power was $80.

Of *Fanners* there were a great many specimens, and mostly of the same good pattern; in solidity and finish they are better than anything ever imported, and their makers, Messrs. Monro, Skinner, Quigley, and Harris & Allan, are prepared to supply the whole country.

Farm Carts, Scotch pattern; of these there were two specimens by Messrs. Quigley and Skinner: they were both of first rate quality as regards strength and finish, and much admired by the farmers.

Pails, by Mr. Miller, well finished in every way, and quite equal to the imported article.

A *Garden Engine*, by R. Wallace, was exhibited; it was after the American model, better and cheaper than the imported article: this is a most useful machine about a farm, and might save some insurance, and check many a fire, if used in time.

Churns, of several varieties, were exhibited, and it is quite interesting to observe how keenly the ingenuity of inventors is applied to the improvement of this well known article.

Mr. A. Willard's "*Patent Butter Machine*" claims the first notice; it is claimed that butter can be made in less time by this machine than by any other, (from 55 seconds to 20 minutes,) and the butter cleansed, salted and pressed without being touched by the hand. The chief peculiarity seemed to be in the form of the dashers, and the mode of reversing their action, so as to salt and dress the butter without handling it. We feel sure that Mr. Willard will soon be remunerated for the care and attention which he has bestowed upon the improvement of this useful article.

An original "*Double-acting Vertical Churn,*" by L. Durant, was also shown, and deserves commendation.

The *Rocking Churn*, by R. Morrison, of Sussex Vale, seemed a good article, and, as we understand, is already much used by the dairy farmers of King's County.

The *Patent Dashers*, made by Mr. Quigley, after an American pattern, are good and substantial churns; but no churn now-a-days can be considered as complete without a thermometer to determine the right temperature for butter-making—say about 60 deg. Fah.

A *Grindstone*, with trough, treadle and single friction roller, was considered one of the best things of the sort that could be made. We had much pleasure in awarding a prize to Mr. Myers, of St. John, for this useful article. There were others, with double-friction rollers, &c., by Mr. Quigley. There were also grindstones from the Shediac Grindstone Factory. These are actually *turned* from the block by machinery set up by the Messrs. Gilbert, and the superior finish of the articles made in this novel way justify their expectations of a large sale for them.

Section D.—MANUFACTURES CHIEFLY IN WOOD.

A *Cabinet of Veneered White Birch*, by Mr. J. Randall, deserves favourable notice as exhibiting the capabilities of that native wood. It looked quite as well as satin wood.

The *Lasts* exhibited by Mr. Clarke were well and neatly executed.

There was also a sample of *Lucifer Matches* exhibited by Mr. Clarke, which we notice, only to express our surprise that the great demand for these articles is not wholly supplied from within the Province itself.

Under this head also we may notice *Pianos;* of these there were three—two (Grand) by Mr. Hunt, in rosewood cases; their tone and finish were very much admired. The third was a more showy carved rosewood cabinet piano-forte, by Kennay and Scribner. In appearance it surpassed the other, but we were given to understand that some parts of it were not of Provincial manufacture. One of Mr. Hunt's has the English, and the other the American tone; the former more clear and round than the latter, which is louder, and perhaps better adapted for the concert-room.

Section E.—MANUFACTURES IN LEATHER.

Of these there were not many. There were *Travelling Trunks*, very fair; *Harness*, excellent; and *Boots and Shoes*, of every quality. We may also mention one or two pairs of *Gloves*, made at Stanley, by Mrs. Bennet. The dressed and made up *Native Furs*, by Mr. Lockhart, were also well worthy of commendation.

Section F.—MISCELLANEOUS.

Among the miscellaneous manufactures we must particularly notice the *Candles* of Messrs. Scott, Woods, and Brown, also the *Bar and Fancy Soaps* of Messrs. Scott and Brown. We know the quality of these articles to be first rate, and we believe that within the last few years they have wholly taken the place of the imported article. The soap and candle manufacture of this Province is one which can now defy competition.

On one of the tables are a few dark green candles, made of wax, from the native wax myrtle *(Myrica Cerifera)*. The wax naturally exists as a sort of bloom on the berries of that shrub, which somewhat resembles a blueberry bush, and grows abundantly along the sandy sea-shore of the Gulf of St. Lawrence. The berries, when boiled, yield up their waxy covering, which is then skimmed off and made into candles, &c.

Your Committee likewise observed with great satisfaction some specimens of *Printing* and *Wrapping Paper*, from the manufactory of Messrs. Philps. This establishment has lately been set up on Little River, near the Water Company's Dam, and within a convenient distance of the City. We wish them the supply of the whole Provincial demand, and expect that in a few years we may cease to import paper, as we have almost ceased to import soap, &c.

The *Hats* of Everitt, Lockhart, and Magee were also well worthy of notice. They seemed to be as good as the imported articles, and ought wholly to take their place.

The *Bricks*, faced and plain, exhibited by Messrs. Crosby and Riggs, are of first rate quality; all we want is enough of them.

But perhaps the most perfect piece of mechanical skill in the whole exhibition was an *Astronomical Clock*, by Mr. J. White, of Fredericton. This clock is undoubtedly the finest which has ever been made in the Province, and is extremely creditable to the young artist who constructed it. It has a dead beat escapement on Harrison's plan, and the pendulum rod is a piece of pine, well dried, oiled, painted and gilt. The performance of this clock hitherto has been unexceptionable.

Section C.—MANUFACTURES IN METAL.

Stoves.—Of these there were many varieties, and most of them as good as can be imported; the hot-air stove, by Harris & Allan, was a very superior article, and will no doubt meet with a ready sale; the ships' stoves, kitchen stoves and parlor grates, exhibited by the same firm, seemed to be good and substantial of their kind. Mr. T. C. Everitt's stoves, of various forms, were both well made and cheap.

A large wrought Iron *Safe Door*, by J. Turner, of St. John, was admirably finished and fitted; the lock alone was proof of the great mechanical skill of its maker.

A new form of *Lock*, exhibited by G. Thomas, was also well worthy of notice.

The specimens of *Cutlery* by Mr. Nicholson, including knives, razors, &c., were as well made and as highly finished as could be desired.

A two-grooved *Rifle* was shown by Mr. Crispin, of St. John. It was light and well made, and priced at only £8. This is a new branch of Provincial manufacture, and we hope that Mr. C. will be patronized by our young sportsmen.

Every one admired the *Edge and Hand Tools* of Mr. Drury, Messrs. Broad, Spiller, and Edwards, including axes, chisels, gouges, adzes, hammers, planes, &c. Their make and finish would have done no discredit to Sheffield, and if the enterprising makers can produce them fast enough, there will be no stint in the demand for them.

Mr. W. N. Venning has sent a case of *Silver Ware*, including spoons, forks, ladles, &c., which was much admired by all.

Section D.—MANUFACTURES CHIEFLY IN WOOD.

In this department the *Models of Ships* demand attention, but ship-building is a branch of business for which our Province is too well known to need any notice here. The models sent to the Exhibition are very creditable.

The *four-oared Gig* "Experiment," was exhibited by Mr. Mailman of Carleton; the Carleton boys, it seems, can make, as well as row their boats against all competition, and their recent feat of rowing in this boat six miles in less than thirty-two minutes, is familiar to all.

Two *Capstans* of Teak and Mahogany, inlaid with brass, by Messrs. Gaynor and Corbett, were excellent specimens of workmanship, equal, we conceive, to anything of the kind made in Liverpool or New York; the same may be said of the *Ships' Wheels*, by Messrs. Gaynor and Carleton, and not less of the *Ships' Blocks*, by Mr. Gaynor.

The seven-inch *Cable and Cordage*, by Messrs. Jarvis, was also apparently as good as need be, and we trust that they will soon be enabled to supply the Provincial demand. Rope-making ought to go hand in hand with ship-building in this Province.

The *Carriage* and *Wagon*, by Hallett,—especially the former,—were highly finished articles, probably more so than any hitherto made in the country; the carriage seemed to be equal to the best style of American carriages usually imported here, whether as regards the wood, iron, leather, painting and lining. We heard that it sold readily for £100.

The *Scales and Measuring Rods*, by Mr. J. Gove, were very well done, and the graduation was as good as on the imported articles. We had no idea that anything of the kind was done in the country.

The *Upholstery*, by Messrs. Howard and Lawrence, was of great beauty, and quite equal to anything which we can require.

Class 3.—IMITATIVE ARTS.

These hardly come under the care of your Committee; but before closing this short record of the first Public Exposition of our Provincial Art and Industry, it may be well to mention that our progress even in these is highly encouraging.

Messrs. McMillan and Avery send excellent specimens of Typography.

Mr. Venning sends some excellent specimens of Copper Engraving.

Mr. Gasking (at the establishment of Messrs. Chubb & Co.,) contributes specimens of Wood Engraving and Lithography, shewing great taste and skill.

Messrs. Nelson and Melick contribute some very good Daguerreotypes.

Mr. Foulis exhibits some Medallion Portraits in Enamel and Electrotype.

Mr. Sleeth contributes specimens of Sculpture in Marble.

Messrs. Grant and McCoach send specimens of Turning in fancy woods.

Capt. Lawson contributes some very remarkable specimens of Carving in Ivory, executed by himself while at sea.

A Tombstone, by Fitzgerald, and two Fonts, by Miligan, are good specimens of Carving in grey freestone.

Of carved Figure-Heads for ships, the figure of an Indian and Bird pleased us most.

Messrs. Potter have contributed various carved Picture and Mirror Frames, Tables and Fire-Screens, which are very creditable to their taste and skill.

The carved Chair, by Howard, is also well worthy of notice in this department.

There were likewise many Paintings by native artists, more particularly those by Messrs. Ward and Stanton, which are highly creditable to our native talent, and hold out much hope for the future.

Mr. Holman is the only decorative painter who comes forward; his specimens of painting in imitation of marble and fancy woods, are well worthy of being looked at. We are tempted to ask, however, why has he so few competitors?

Having thus briefly pointed out such of the articles as attracted our especial notice at the Exhibition, we may now make a few remarks on the subject of Premiums.

On consultation with the Directors of the Institute, we learnt that they had determined not to give any prizes or honorary diplomas for the present year. The mechanics themselves, it was understood, had declined it; the notice was too short, and the thing was so new, they said, that diplomas or records of superiority in their departments might be awarded upon unequal and imperfect grounds: they therefore did not desire either premiums or diplomas for the present year.

Under these circumstances, your Committee thought it best to appropriate the whole amount to the sections of Agricultural Produce, Domestic Manufactures, and Agricultural Implements.

Hereunder is submitted a schedule of the various Premiums so awarded by your Committee:—

To Dr. George P. Peters, Lancaster, for Wheat,	£1
Mr. J. Harrison, Portland, for Barley,	1
Mr. P. McFarlane, Fredericton, for Pot Barley,	1
Mr. J. Clarke, Simonds, for Oats,	1
Mr. King, Sussex, assortment of general produce,	1
Mr. H. Nicholls, Simonds, do. do.	1
Mr. F. Ferguson, Bathurst, do. do.	1
Mr. W. H. Mills, do. do.	1
Mr. J. Cother, Loch Lomond, do. do.	1
Mr. C. Ratcliff, Loch Lomond, do. do.	1
Mr. Fowler, Norton, do. do.	1
Mr. M. Trueman, Westmorland, for Cheese,	1
Mr. R. K. Trueman, do. Butter,	1
Miss E. Fairweather, Norton, for Blankets,	2
Miss Pender, for Domestic Manufactures,	1
Mr. Anderson, Westmorland, for Cheese,	1
Mr. L. Donaldson, St. Andrews, assortment of general produce,	1
Chief Justice Chipman, St. John, for Vegetables,	1
Messrs. E. & J. Broad, St. John, for Hay and Manure Forks,	1
Mr. T. G. Allen, Fredericton, do. do. do.,	1
Mr. Spiller, St. John, for Edge Tools,	1
Mr. J. Quigley, St. John, for Farm Cart,	1
Mr. S. Skinner, do. do.	1
Mr. G. Todd, Fredericton, for Plough,	1
Mr. W. Smith, St. John, do.,	1
Mr. J. Munro, do. Fanners,	1
Messrs. Harris & Allan, do., for General Implements,	1
Mr. T. Miller, St. John, for Pails,	1
Mr. J. Myers, do. for Grindstones,	1

In conclusion, your Committee would congratulate the Society on the advancing state of Mechanic and Industrial pursuits among us, exhibited by the recent Show and Fair, held under the auspices of the Institute at St. John, and likewise upon the growing desire which prevails among all classes of this community to establish and maintain such laudable Exhibitions of our Provincial Industry, at fixed and regular intervals, for ever hereafter.

All of which is respectfully submitted by

J. ROBB,
R. JARDINE, } *Committee.*

St. John, 19*th September*, 1851.

GREAT EXHIBITION;

Or, Provincial Show and Fair,

To be held at Fredericton on Tuesday the 5th of October, 1852, and four following days; under the direction of the New Brunswick Society for the encouragement of Agriculture, Home Manufactures, and Commerce, throughout the Province.

His Excellency Sir E. W. Head, Bart., Patron.

PREMIUM LIST.

CLASS I.—MINERAL KINGDOM.—Section A.

Raw Materials, &c.

Ores of the Metals, best assortment,	£5	0	0
Ditto, do. 2nd best do.,	2	0	0
Mineral Paints, best assortment,	2	0	0
Combustible Materials, best samples,	4	0	0
Ditto do. 2nd best do.,	2	0	0
Grinding and Polishing Materials, best samples,	2	0	0
Clays, Sands, &c., best samples,	4	0	0
Ditto do. 2nd best do.,	2	0	0
Mineral Manures, best sample,	1	0	0
Building Stones, 8 in. cube, dressed, best samples,	4	0	0
Ditto do. do. do. do. 2nd best do.,	2	0	0
Slate, best samples,	1	0	0
Minerals, the best assortment of,	3	0	0
Salt, best samples,	1	0	0
Potash or Pearl Ash, best samples,	1	0	0
Lime, Plaster, or other Mineral Cement, best samples,	1	0	0
Bricks or Tiles, best samples,	1	0	0
Ditto do. 2nd best do.,	0	10	0
Pottery Ware, best assortment,	1	0	0
Total, ...	£39	10	0

CLASS I.—Section B.

Manufactures chiefly in Metal.

Stoves, best variety,	£4	0	0
Ditto 2nd best do.,	3	0	0
Carried forward,	£7	0	0

Amount brought forward,	£7	0	0
Cooking Ranges, best,	3	0	0
Hollow Ware, best variety,	1	10	0
Plough, best,	2	0	0
Ditto, best assortment of any kinds,	4	0	0
Second best do.,	2	0	0
Drill-harrow, best,	1	10	0
Potato-digger, best,	1	10	0
Potato Forks, best half dozen,	1	10	0
Spades or Shovels, best half dozen,	1	0	0
Ditto do 2nd best do.,	0	10	0
Hoes, best half dozen,	1	0	0
Ditto, 2nd best do.,	0	10	0
Manure Forks, best half dozen,	1	0	0
Ditto, 2nd best do.,	0	10	0
Hay Forks, best half dozen,	1	0	0
Ditto, 2nd best do.,	0	10	0
Axes, narrow, best half dozen,	1	0	0
Ditto, do. 2nd best do.,	0	10	0
Ditto, broad, best half dozen,	1	0	0
Ditto, do. 2nd best do.,	0	10	0
Planes, best assortment,	1	0	0
Ditto, 2nd best do.,	0	10	0
Hammers and Edge Tools, best assortment,	4	0	0
Ditto do. do. 2nd best do.,	2	0	0
Saws, best assortment,	1	0	0
Ditto, 2nd best do.,	0	10	0
Locks and Latches, best assortment,	1	0	0
Ditto do. 2nd best do,	0	10	0
Fire Arms, best assortment,	1	10	0
Cutlery, do.,	2	0	0
Dentistry, best spemimen,	1	10	0
Clocks, best,	3	0	0
Astronomical or Surveying Instruments, best,	2	0	0
Electrical Instruments, best,	2	0	0
Steam Engine, model of, best,	5	0	0
Ditto, do. 2nd best,	2	0	0
Lathes, best,	2	0	0
Fire Engine, best,	5	0	0
Garden Engine, best,	2	0	0
Silversmith and Jeweller's work, best assortment,	2	0	0
Copper and Tin Smith's work, best assortment,	2	0	0
Horse Shoes, best set of four pairs,	1	0	0
Cut Nails, best variety of,	1	10	0
Brass Casting, specimen of, best,	1	10	0
Total, ...	£79	10	0

CLASS II.—VEGETABLE KINGDOM.—Section A.

Raw Materials.

Woods, native, best assortment of,					£2	0	0
Ditto, do.,	2nd best do.,				1	0	0
Cranberries, not less than a half bushel, best sample,					0	10	0
Wheat, (taken from not less than 1 acre,) best sample,					2	0	0
Ditto,	do.	do.	do.	2nd do.,	1	10	0
Ditto,	do.	do.	do.	3rd do.,	1	0	0
Oats,	do.	do.	do.	best sample,	2	0	0
Ditto,	do.	do.	do.	2nd do.,	1	10	0
Ditto,	do.	do.	do.	3rd do.,	1	0	0
Barley (Chevalier)	do.	do.		best sample,	1	0	0
Ditto,	do.	do.	do.	2nd do.,	0	10	0
Ditto, (Common)	do.	do.		best sample,	1	0	0
Ditto,	do.	do.	do.	2nd do.,	0	10	0
Rye,	do.	do.	do.	best sample,	1	0	0
Buckwheat (Rough)	do.	do.		best sample,	1	0	0
Ditto (Smooth)	do.	do.		do.,	1	10	0
Indian Corn, (from not less than ½ acre,)				do.,	3	0	0
Ditto,	do.	do.	2nd	do.,	1	10	0
Broom Corn, best sample,					1	10	0
Peas, not less than 1 peck, best sample,					1	10	0
Beans,	do.	do.	do.,		1	10	0
Timothy Seed, not less than 1 bushel, best sample,					1	0	0
Red Clover Seed, not less than 10 lbs.,				do.,	1	0	0
Flax Seed and Fibre,		do.	do.	do.,	1	0	0
Hemp Seed and Fibre,		do.	do.	do.,	1	0	0
Millet Seed,		do.	5 lbs.	do.,	0	10	0
Turnip Seed, (Swedes)		do.	do.	do.,	1	0	0
Carrot Seed,		do.	2 lbs.	do.,	1	0	0
Mangold Wurtzel Seed,		do.	do.	do.,	1	0	0
Blood Beet Seed,		do.	do.	do.,	1	0	0
Potatoes, best sample,					1	0	0
Ditto, 2nd best do.,					0	10	0
Turnips, (Swedes) best sample,					1	0	0
Mangold Wurtzel,		do.			1	0	0
Sugar Beet,		do.			1	0	0
Carrots, Red		do.			0	10	0
Ditto, White,		do.			0	10	0
Hops, not less than 5 lbs., best sample,					0	10	0
Farm Produce, greatest variety,					3	0	0
Ditto,	2nd	do.,			2	0	0
Apples, best assortment of named varieties,					2	0	0
Pears, best sample,					0	10	0
Carried forward,					£50	0	0

Amount brought forward,	£50	0	0
Squash and Pumpkins, best sample,	0	10	0
Parsnips, do.	0	10	0
Onions, do.	0	10	0
Celery, not less than twelve heads, best sample,	0	10	0
Salsify, not less than twenty-five heads, do.,	0	10	0
Mushrooms, fresh or pickled, one quart, do.,	0	10	0
Cabbages, not less than six, best sample	0	10	0
Cauliflower, do. do. do.,	0	10	0
Pickles, not less than one gallon, best assortment,	0	10	0
Preserves, do.,	0	10	0
Garden Produce, greatest variety,	4	0	0
Greenhouse Plants, do.	1	0	0
Dried Plants,	1	0	0
Total,	£61	0	0

CLASS II.—Section B.

Manufactures chiefly in Wood.

Plough, best,	£2	0	0
Harrow, ditto,	1	0	0
Cultivator, ditto,	1	10	0
Horse Power, ditto,	3	0	0
Fanning Mill, ditto,	1	10	0
Thrashing Mill, ditto,	2	0	0
Grain Drill, ditto,	1	10	0
Chaff Cutter, ditto,	1	0	0
Corn Sheller, ditto,	1	0	0
Horse Rake, ditto,	1	0	0
Hand Rakes, not less than a half dozen, best,	0	10	0
Snow Shovels, do. do. do.	0	10	0
Cheese Press, best,	1	0	0
Churn and Butter Worker, best,	2	0	0
Ditto, 2nd best,	1	0	0
Ox Yoke, best,	0	10	0
Whip, Axe, Scythe, Rake and Broom Handles, best ass't,	0	10	0
Agricultural Implements, best assortment,	4	0	0
Coopers' Work, best	2	0	0
Shingles, not less than one bunch, best	0	10	0
Clapboards, not less than one bundle, best,	0	10	0
Veneers, best assortment,	0	10	0
Barrel Staves, best,	0	10	0
Bee Hive, best,	1	0	0
Carried forward,	£30	10	0

Amount brought forward,	£30	10	0
Table, best,	2	10	0
Chairs, not less than six, best,	2	10	0
Sofas, Ottomans or Couches, best,	3	0	0
Cabinet or Wardrobe, best,	3	0	0
Bedstead, best,	2	0	0
Cradle, best,	1	0	0
Fire Screens or Picture Frames, best,	2	0	0
Shoe Lasts, not less than three pairs, best,	1	0	0
Shoe Pegs, not less than one quart, best,	0	10	0
Lucifer Matches, not less than one gross, best,	0	10	0
Figure Heads of Ships, best,	2	10	0
Blocks, Wheels, and Capstans, best assortment,	3	0	0
Door and Window Frames, and Sashes, best assortment,	1	10	0
Pumps, best,	1	10	0
Spinning Wheels, best,	1	0	0
Turnery, best specimens,	1	10	0
Basket Work, best,	1	0	0
Pianos, best,	5	0	0
Ditto, 2nd best	3	0	0
Other Musical Instruments, best,	1	10	0
Loom, best,	2	0	0
Wheelbarrow, best,	1	0	0
Carriage, or Pleasure Wagon, best,	5	0	0
Ditto, ditto, 2nd best,	3	0	0
Wagon or Cart for Farm purposes, best,	2	0	0
Sleigh, best,	1	0	0
Child's Sleigh, best,	0	10	0
Gig, Six-Oared, best,	5	0	0
Ditto, Four-Oared, best,	4	0	0
Wherry, Two-Oared, best,	2	0	0
Bark Canoe, best,	1	0	0
Log Canoe, best,	1	0	0
Total, ...	£97	10	0

CLASS II.—Section C.

Manufactures from Grain, Fibre, &c.

Wheat Flour, Provincial,	not less than ½ barrel,	best,	£1	0	0
Rye Flour,	ditto	ditto	ditto,	1	0	0
Corn Meal,	ditto	ditto	ditto,	1	0	0
Oat Meal,	ditto	ditto	ditto,	1	0	0
Buckwheat Meal,	ditto	ditto	ditto,	1	0	0
Carried forward,				£5	0	0

Amount brought forward,	£5	0	0
Barley, hulled, Provincial, not less than ½ barrel, best,	1	0	0
Ditto, malted, ditto ditto ditto,	1	0	0
Starch from any root or grain, best, -	1	0	0
Maple Sugar, not less than ten pounds, best,	0	15	0
Ditto ditto refined, not less than ten pounds, best,	1	0	0
Biscuits, best assortment, - -	1	10	0
Confectionary, best assortment, -	1	10	0
Grass Plait Hat or Bonnet, best, -	1	0	0
Ditto ditto ditto 2nd best, -	0	10	0
Straw Hat or Bonnet, best, - -	0	10	0
Mats or Matting, best sample, -	0	10	0
Corn Brooms, not less than six, best, -	0	15	0
Birch Brooms, ditto ditto, ditto, -	0	10	0
Ropes and Cordage, best assortment, -	1	10	0
Twine or Thread, best sample, -	0	10	0
Linen Goods, ditto, - -	1	0	0
Ditto ditto 2nd ditto, - -	0	15	0
Cotton or mixed Goods, best, -	1	0	0
Ditto ditto ditto, 2nd best, -	0	15	0
Paper, best assortment, - -	1	10	0
Cider and Vinegar, not less than 5 gallons of each, best,	1	0	0
Native Dye Stuffs or Colours, best, -	1	0	0
Total, ...	£25	10	0

CLASS III.—Section A.

Live Stock, &c.

Stallion over four years, of any country or breed, best,	£7	0	0
Ditto ditto for agricultural purposes, best,	5	0	0
Ditto ditto ditto ditto, 2nd best,	3	0	0
Ditto three years old, raised in the Province, best,	3	0	0
Ditto two years old, raised in the Province, best,	3	0	0
Ditto one year old, ditto ditto, best,	1	0	0
Matched Carriage Horses, best pair, -	5	0	0
Ditto Draught ditto ditto, -	5	0	0
Gelding or Filly, two years old, raised in the Province, best,	2	0	0
Brood Mare and Foal, of any country or breed, best,	3	0	0
Saddle Horse, (Roadster) ditto ditto best,	3	0	0
Bull (pure breed) of any age or country, best,	4	0	0
Ditto ditto ditto ditto ditto,	2	0	0
Ditto ditto of two years old, ditto,	2	0	0
Ditto ditto ditto 2nd ditto,	1	0	0

Amount brought forward,	£49	0	0
Bull, (pure breed) of one year old, best,	2	0	0
Ditto ditto ditto 2nd ditto,	1	0	0
Ditto ditto of 1852, ditto,	1	0	0
Cow, ditto of any age, ditto,	3	0	0
Ditto ditto ditto 2nd ditto,	2	0	0
Ditto ditto of two years old ditto,	2	0	0
Ditto ditto of one year old, ditto,	1	0	0
Ditto ditto of 1852, ditto,	1	0	0
Bull, (mixed breed) of any age, ditto,	2	0	0
Ditto ditto ditto 2nd ditto,	1	0	0
Ditto ditto of 1852, ditto,	1	0	0
Milch Cow, (mixed breed) ditto,	3	0	0
Ditto ditto ditto 2nd ditto,	2	0	0
Heifer, ditto of two years old, ditto,	2	0	0
Ditto ditto of one year old, ditto,	1	0	0
Ditto ditto of 1852, ditto,	1	0	0
Working Oxen, best yoke, - -	3	0	0
Ditto ditto 2nd best, - -	1	0	0
Fat Ox, Steer, Cow or Heifer, of any age, breed, or country, best, - -	2	10	0
Ram (pure breed) of two years and over, -	2	0	0
Ditto ditto of one year and over, -	1	0	0
Ditto ditto of 1852, - -	1	0	0
Ewes ditto of two years and over, best pair,	2	0	0
Ditto ditto of one year and over ditto,	1	0	0
Ditto ditto of 1852, ditto,	1	0	0
Ram, (mixed breed) of two years and over, best,	1	10	0
Ewe, ditto ditto ditto best,	1	10	0
Wethers, ditto of three years and over, best pair,	1	10	0
Lambs ditto of 1852, best, -	1	0	0
Boar, (pure breed) of one year and over, best,	2	0	0
Ditto ditto under one year, best, -	1	0	0
Sow, ditto of one year and over, best,	2	0	0
Ditto ditto under one year, best, -	1	0	0
Pigs, ditto between 5 and 10 months old, best pair,	1	0	0
Boar, (mixed breed) of one year and over, best,	2	0	0
Ditto ditto under one year, best, -	1	0	0
Sow, ditto of one year and over best,	2	0	0
Ditto ditto under one year, best, -	1	0	0
Pigs, ditto between 5 and 10 months old, best pair,	1	0	0
Fowls, (pure breed) best pair, -	0	10	0
Ditto (mixed breed) ditto - -	0	7	6
Turkeys, best pair, - -	0	7	6
Carried forward,	£110	5	0

Amount brought forward,	£110	5	0
Geese, best pair,	0	7	6
Ducks, best pair,	0	7	6
Total, ...	£111	0	0

CLASS III.—SECTION B.

Manufactures from parts of Animals.

Beef, salted, best barrel,	£1	0	0
Pork, ditto ditto	1	0	0
Hams, best pair,	1	0	0
Bacon, best side,	1	0	0
Butter, not less than twenty-five pounds, best,	1	0	0
Ditto ditto ditto 2nd best,	0	15	0
Ditto ditto ditto 3rd best,	0	10	0
Cheese, not less than twenty-five pounds, best,	2	0	0
Ditto ditto ditto 2nd best,	1	0	0
Bristles or brushes,	0	15	0
Wool Fleeces, best assortment,	1	10	0
Oil, not less than one quart, best sample,	1	0	0
Honey or Wax, not less than 10 lbs. of each, best sample,	2	0	0
Ditto ditto ditto ditto ditto 2nd ditto,	1	0	0
Candles, not less than ten pounds, best assortment,	2	0	0
Ditto ditto ditto ditto 2nd ditto,	1	0	0
Soap, ditto ditto ditto best assortment,	2	0	0
Ditto ditto ditto ditto 2nd ditto,	1	0	0
Leather, best variety,	3	0	0
Furs or Skins, best variety,	2	0	0
Ditto ditto manufactured ditto,	1	10	0
Boots and Shoes, best,	2	0	0
Saddle and Bridle, best,	1	0	0
Harness, best assortment,	2	0	0
Ditto 2nd best,	1	0	0
Blankets, best pair,	2	0	0
Ditto 2nd best,	1	0	0
Woolen Carpet, not less than twenty yards, best,	2	0	0
Counterpane, woven, best,	1	0	0
Flannel, not less than ten yards, best,	2	0	0
Woolen Cloth, (fulled) not less than ten yards, best,	1	10	0
Ditto ditto ditto ditto 2nd best,	1	0	0
Ditto ditto (not fulled) ditto ditto best,	1	0	0
Ditto ditto ditto ditto ditto 2nd best,	0	15	0
Mixed Homespun Cloth, ditto ditto best,	1	10	0
Carried forward,	£47	15	0

Amount brought forward,	£47	15	0
Mixed homespun, for women's wear, best, -	1	0	0
Ditto ditto with reference particularly to pattern, best,	1	10	0
Ditto ditto 2nd best, - -	1	0	0
Woolen Shawls or Scarfs, (fancy pattern) best,	1	0	0
Woolen Socks or Stockings, best assortment,	0	10	0
Ditto Mittens or Gloves, ditto -	0	10	0
Tailor's Work, best specimen of, -	2	0	0
Hatter's ditto ditto ditto, -	2	0	0
Milliner's ditto ditto ditto, -	1	0	0
Dyer's ditto ditto ditto, -	1	0	0
Feathers and Down, best assortment, -	0	15	0
Quill or Hair Work, ditto, -	0	10	0
Horns or Horn Work, ditto, -	1	0	0
Snow Shoes and Moccasins, best, -	1	0	0
Fish, smoked or dried, best sample, -	2	0	0
Ditto pickled, ditto, -	2	0	0
Ditto preserved, ditto, -	2	0	0
Lobster, or other Shell Fish, preserved, best,	1	0	0
Total, ...	£69	10	0

CLASS IV.

Fine Arts, &c.

Oil Painting, best, - -	£3	0	0
Water Colour Painting, best, -	2	0	0
Drawings in Crayons, best, - -	1	0	0
Pencil Drawings, best, - -	1	0	0
Decorative Painting, best specimen, -	2	10	0
Ditto ditto 2nd best, -	1	10	0
Engraving, specimen of, ditto, -	1	0	0
Wood Cutting, ditto, -	1	0	0
Lithography, ditto, -	1	0	0
Typography, ditto, -	1	0	0
Daguerreotype, ditto, -	1	0	0
Electrotype, ditto, -	1	0	0
Sculpture or Carving, ditto, -	1	0	0
Bookbinding, specimen of best, -	3	0	0
Ornamental Writing, best, - -	1	0	0
Model or Design of any kind, best, -	1	0	0
Ditto ditto ditto, 2nd best, -	2	0	0
Patterns for Casting, best assortment, -	1	0	0
Crochet work, best specimen, -	1	10	0
	0	10	0
Carried forward,	£27	0	0

Amount brought forward,	£27	0	0
Woolen or Cotton fancy knitting, best, -	0	10	0
Ditto Ditto netting, best, -	0	10	0
Embroidery, best, - -	0	10	0
Braid Work, best, - -	0	10	0
Berlin Wool Work, best, - -	0	10	0
Raised Worsted Work, best, - -	0	10	0
Total, ...	£30	0	0

PLOUGHING MATCH.

Ploughing with Horses, best, - -	£6	0	0
Ditto ditto ditto 2nd best, -	3	0	0
Ditto ditto ditto 3rd best, -	2	0	0
Ditto with Oxen, without a driver, -	2	0	0
Ditto ditto ditto, with a driver, -	1	0	0
Total, ...	£14	0	0

NOTICE FOR THE GUIDANCE OF EXHIBITORS.

1. All articles and live stock, intended for competition, shall be entered with the Secretary, or local Agents, on or before the 21st of September, and delivered to the Executive Committee on or before Saturday the 2nd of October, at the risk of the exhibitor, and without charge to the Society.

Cattle to be in Fredericton the night previous to the day of the Cattle Show, (Wednesday the 6th,) and to be in the yard by 8 o'clock on the morning of the Show-day. Cattle must remain in charge and at the risk of their owners, but they may be fed in Fredericton at the expense of the Society. The names of intending competitors in the Ploughing Match should also be entered as above.

2. In addition to the Local Committees already named, Agents will hereafter be appointed at Woodstock, Grand Falls, St. Andrews, St. Stephen, St. George, Campobello, Grand Manan, Burton, Canning, Sheffield, Gagetown, Hampton Ferry, St. John, Sussex Vale, Hopewell, Hillsborough, Bend, Shediac, Dorchester, Sackville, Richibucto, Buctouche, Chatham, Newcastle, Bathurst, Dalhousie and Campbelltown, whose duty it shall be to enter all articles for the Exhibition from their respective neighbourhoods, and to forward a list of such entries to the Corresponding Secretary.

3. A sum has been appropriated towards the transmission of articles specially recommended by Agricultural Societies, Local Committees, or by the Judges as having a claim upon this reserved fund.

4. Articles, the produce or manufacture of other countries, may be exhibited or sold, but cannot take prizes, except as specially excepted. Works of art and curiosities of all kinds are solicited, and every care will be given to their safe keeping.

5. Exhibitors must be prepared to prove that the articles are the produce or manufacture of New Brunswick, and must send with the articles a label, stating the exhibitor's name and address, the designation, description and object of the articles, where produced or manufactured, the lowest price, and the quantity available for the market, and the prize for which they are entered.

Portions of manufactured articles may necessarily in some cases be the produce of other countries—such as the ivory and wires of pianos, the woods of cabinet-maker's work, and the mountings of saddlery:—a certificate of such facts with an account of the State in which such articles were imported, to be verified if required, must be furnished in all such cases.

6. Notice will be given hereafter of the appointment of Judges in the several departments for the purpose of awarding the Premiums. Articles only known to the Judges by their number in the Secretary's book. Prizes to be paid promptly on the certificate of the Judges: Provided nevertheless, that in all cases where prizes of £1 and upwards shall have been awarded to persons not members of the Society, the sum of five shillings will be deducted from the amount of the said prizes for their subscription to the Society for the year.

7. No article shall be entitled to more than one prize; and Premiums in any department may be withheld if the Judges do not consider that the article or articles exhibited are entitled to them: strict compliance with the above rules will in all cases be required.

When manufacturers show to the satisfaction of the Judges that they are prepared to supply the market with articles "good and cheap" as compared with other countries, or with others in the same trade, diplomas shall be granted to them in addition to Premiums.

8. In the case of Grains or Roots, not less than half a bushel (unless so specified) is to be exhibited for competition; and in every case a report in writing, at the time of the Exhibition, is required of the kind of seed, the quantity grown per acre, the mode of preparing the same, the quality of soil, the system of culture, with the time of sowing and reaping:—

The Judges shall be guided in their awards—1st, by the purity of the seed; 2nd, by its freedom from extraneous seeds; 3rd, by its weight; and 4th, by the quantity raised per acre.

9. In the case of imported or thorough-bred stock, the importer or owner must furnish in writing a particular account of the breed, pedigree and prime cost of the animals when imported, age of cattle to be taken from 1st January of each year.

All stock entered for competition must have been owned and kept in the Province not less than three months prior to the Exhibition.

10. Competitors in fatted cattle and sheep must furnish a verified statement in writing at the time of the Exhibition, of the mode of feeding, the size and weight of the animals when put up to fatten and their progressive increase as far as can be ascertained.

11. No premiums will be paid on any animals or articles taken away before the close of the Exhibition, unless permission to take them away be first granted by the Committee.

Premiums not claimed within one month after they are awarded, will be considered as donations to the Society.

12. In the case of manufactured articles generally, the Judges shall be guided in their awards by a reference to their excellence, cheapness and fitness for the country.

13. The sum above appropriated for premiums IS UPWARDS OF FIVE HUNDRED POUNDS, of which about one half is allotted to agriculture, and the other half to the arts and manufactures. A farther sum will be set apart for premiums for new inventions, or for objects not enumerated in the schedule already published by the Society, and to which reference is again expressly made.

14. The Exhibition will be chiefly held in and about the Province Building: Agricultural and other produce shall as much as possible be classified according to the counties from which it is received.

Notice will hereafter be given of the sports and amusements which are to take place during the week of the Exhibition.

By Order of the Executive Committee.

J. ROBB, *Secretary.*

APPENDIX.

GOVERNMENT HOUSE, FEEDERICTON, *June*, 2, 1852.

SIR,—I am directed by His Honor the Administrator of the Government, to transmit to you, as President of the New Brunswick Society for the encouragement of the Arts, a copy of a Circular Despatch and its enclosure, which he has received from the Colonial Secretary by the last English mail.

I have the honor to be, sir,

Your obedient servant,

R. T. PENNEFATHER.

The Honorable JUDGE STREET.

(Copy.)

[CIRCULAR.] DOWNING STREET, *April* 24, 1852.

SIR,—At the request of the Council of the Society of Arts, I transmit to you a copy of a letter addressed to me by their Secretary, representing the advantages which would accrue to the British Colonies from a more general diffusion of the objects of the Society throughout the Colonial Empire.

I shall be glad to learn that the views of the Society have been adopted in the Colony under your Government, and that an Association has been formed for the purpose of entering into a correspondence with the parent Society for carrying their wishes into effect.

I have, &c.,

(Signed) JOHN S. PAKINGTON.

Lieut. Governor SIR E. HEAD, Bart.

Copy of a Letter from the Secretary to the Society of Arts, Manufactures and Commerce, to Her Majesty's principal Secretary of State for the Colonies.

SOCIETY OF ARTS, JOHN STREET ADELPHI, LONDON, *26th March*, 1852.

SIR,—I am directed by the Council of the Society of Arts to acquaint you, that they have appointed a Committee of the following Members of the Society, viz:—

The E[illegible]l Grey,	Joseph Glynn, Esq., F. R. S.,
Robert Stephenson, Esq., M. P.,	Wyndham Harding, Esq.,
Dr. J. F. Royle, F. R. S.,	Nathaniel Lindley, Esq.,
Professor Solly, F. R. S.,	Alfred Reade, Esq.,
John Bell, Esq.,	Lieut. Tyler, Royal Engineers.
C. Wentworth Dilke, Esq.,	

to consider the best means of making the Society useful in advancing the knowledge of the resources and capabilities of the numerous British Colonies in all quarters of the world, and in furnishing the Colonies themselves with such information as may be required on subjects connected with Arts, Manufactures and Commerce.

The accompanying Enclosures, Nos. 1 and 2, will explain the Constitution of the Society, the objects they have in view in adopting the present measure, and the means which they possess of carrying them into effect.

The Council conceive that one of the first steps towards the attainment of their objects, will be the establishment of a Correspondence with similar Institutions in the Colonies; or, in the smaller Colonies, where no such Institutions exist, with a Committee consisting of three or more Members, in all cases where volunteers for such a purpose can be found.

I am, therefore, to express the hope of the Council, that you will be pleased to accord to the Society the advantages of that co-operation and assistance which the Colonial Office is so well able to afford, to enable them to place themselves thus in correspondence with the numerous Colonies. And, as the readiest means of doing so, I am directed to transmit to you printed copies of the present Letter and its Enclosures, which the Council trust you will have the goodness to forward to the Governors of Colonies, with such instructions for judicious distribution as may appear best calculated to ensure their practical utility.

I have the honour to be, sir,

Your most obedient servant,

GEORGE GROVE, *Secretary.*

ENCLOSURE No. 1.

Brief Statement of the Objects, Government, Revenue, and mode of Action of the Society for the encouragement of Arts, Manufactures and Commerce:—

Objects:—The Society for the encouragement of Arts, Manufactures and Commerce, was founded in 1754, and Incorporated under the above name by Royal Charter in 1847, they are summed up in

the Charter as—"Generally to assist in the advancement, development and practical application of Science in connection with the Arts, Manufactures and Commerce of the Country."

Government:—It is governed by a President, Vice-Presidents, two Treasurers, two Auditors, and from twelve to twenty-four other members, who form a Council elected annually by ballot at a General Meeting of the Society. The Secretary and Collector are elected in a similar manner, and are the only officers who receive any salary. The following are the Officers for the present year:—

PRESIDENT.

HIS ROYAL HIGHNESS PRINCE ALBERT.

VICE-PRESIDENTS.

The Duke of Buccleuch,
The Earl of Carlisle,
The Earl of Ellesmere,
The Earl Granville,
The Lord Colborne,
The Lord Overstone,
Sir J. P. Boileau, Bart.,
Rt. Hon. E. Strutt, M. P.,
Rt. Hon. T. Milner Gibson, M.P.,
H. T. Hope, M. P.,
George Moffatt, M. P.,
S. M. Peto, M. P.,
Robert Stephenson, M. P.,
Beriah Botfield,
Sir C. Barry, R. A.,
I. K. Brunel, F. R. S.,
Thomas Creswick, R. A.,
W. F. Cooke,
Charles Dickens,
C. Wentworth Dilke,
M. Faraday, F. R. S.,
Owen Jones,
J. M. Rendel, Pres. Inst. C. E.,
W. Tooke, F. R. S.

COUNCIL.

John Bell,
Thomas Cubitt,
Joseph Glynn, F. R. S.,
Wyndham Harding, C. E.,
Professor T. H. Henry, F. R. S.,
Captain Henry C. Owen, R. E.,
Dr. Lyon Playfair, C. B.,
J. Scott Russell, F. R. S.,
W. W. Saunders,
Sydney Smirke, R. A.,
Prof. Edward Solly, F. R. S.,
Thomas Twining, Jr.

TREASURERS.

P. Le Neve Foster, M. A. Henry Cole, C. B.

AUDITORS.

Thomas Winkworth. Samuel Redgrave.

SECRETARY.—George Grove.

Revenue:—The Society consists at present of 1200 members, and its revenue is about £2,000 a year,—mainly derived from their individual contributions.

Mode of Action:—The Council appoint annually Standing Committees to report upon the various Departments of the Arts and

Manufactures, and has lately adopted for this purpose the Classification of the late Exhibition, the Committees being thirty in number, to correspond with the thirty Classes.

These various Committees examine and report on the merits of all useful inventions and discoveries, which are publicly exhibited at certain periods by the Society. And upon the reports of the Committees the Council award Medals and other rewards for inventions, treatises, or other objects calculated to advance the interests of the Arts, Manufactures and Commerce.

The Society by these means has been the first and principal medium for introducing to public notice the principal discoveries in Arts and Manufactures which have been brought to light during the present century in this country.

The Council further appoint from time to time Committees for various Special purposes;—among others may be named that for Elementary Drawing Schools, and those for Foreign, Colonial, and Provincial Correspondence.

ENCLOSURE No. 2.

The principal objects which the Council have in view in establishing the Colonial Committee may be generally enumerated under the following heads.

1. To make known to the Mercantile and general Public of this Country the principal products of each of the Colonies, and the facilities for obtaining them.

2. To point out to the Colonists any of those Products which may be advantageously imported into England.

3. To afford such information as any Colony may require in regard to Implements, Machinery, Chemical or other processes necessary to the prosecution of its special branches of Industry.

4. To exhibit and make known to the British Public, Inventions which Colonists have otherwise great difficulty in introducing into notice, that being one of the principal branches of the Society's operations.

5. To collect for the Thirty Standing Committees, information relative to the various departments of Trade in the Colonies.

6. To make a comparison of Coins, Weights and Measures, as used in the Colonies, and to receive and discuss propositions for giving them uniformity.

7. To investigate and report upon the operations of the Patent Laws in the Colonies.

It is hoped that the periodical transmission of the printed Proceedings of the Society of Arts may often convey valuable information to distant Colonies, and the Society hope to enrich their own Annual

Volume by communications from kindred Associations, and from Individuals in the Colonies.

The Council feel confident that these measures cannot fail to be of use both to the Mother Country and to the Colonies, and that should they be unsuccessful in some of the objects above enumerated, benefit will ensue from the remainder.

It may be desirable here to state the reasons which induce the Council to originate the present scheme.

It was as President to the Society of Arts, that His Royal Highness Prince Albert first announced to the World the project of the Exhibition of 1851. The Society had a considerable share in the early progress of the Exhibition, and counts amongst its Members a large proportion of those who took an active part in that great Work.

The Society also contains many Members eminent in the several branches of science, and influential in the Country, and consequently the Society possesses the means of making extensively known, amongst the Manufacturers and Public of Great Britain, any new or important products which may be made available in the Arts, Commerce, or Manufactures of the Country. As a recent instance of this nature, it may be mentioned, that Gutta Percha and its valuable properties were made known through the exertions of the Society.

The Correspondence that has taken place with the Colonies, on account of the Exhibition, has brought to notice that those by whom it has been conducted are capable of affording a vast amount of information, which only requires to be collected and printed, to make it of great use to this Country. And the anxiety which has been evinced for such information as, it is hoped, may be advantageously furnished by Members of the Society, has directed attention to the fact that they have now no direct means of obtaining such information. The Society feels confident, that those who took an active part in the promotion of the Exhibition, will be the first to come forward and render assistance to any scheme such as the present, by which efforts are made to perpetuate its results.

It may be interesting also here to refer to a few of the advantages which have been actually derived from the display of Colonial Produce at the Great Exhibition.

Isinglass had hitherto been regarded as obtainable principally from the fish of the Russian rivers. But it has been ascertained that the rivers of Canada abound with fish producing Isinglass of the first quality, and that a new industrial occupation is thus open to the Canadians, whilst a supply of Isinglass can be furnished to this country at a much more reasonable price than hitherto.

Another remarkable instance is the discovery that Corundum, which has served many of the purposes of diamond and emery powder in India for a long period, might also be brought into use in this country;

a mineral with which it is believed but a very small portion of the British Public had hitherto been acquainted, and which it is suspected has in some instances been sold to our large firms under the name of Diamond powder.

Amongst the substances from the Colonies which have been brought into notice, may be also mentioned walrus skin, porpoise leather from the St. Lawrence, the resins and fatty substances and vegetable waxes from Australia, all of which appear likely to excite attention in the commercial world.

Notwithstanding that these and other substances have been brought into notice, Colonial Produce was on the whole but indifferently represented in the Exhibition, and the Council confidently hope that the means they have now adopted may lead to the formation, at some future period, of a permanent Exhibition of Colonial Produce, either separately, or what would perhaps be preferable, as part of The Collection arising out of the Great Exhibition, from the exertions of The Royal Commissioners.

(Signed) GEORGE GROVE,
Secretary Society of Arts.

FREDERICTON, 24*th June*, 1852.

SIR,—I am directed by the HON. JUDGE STREET, President of the New Brunswick Society for the encouragement of Agriculture, Home Manufactures and Commerce, to acknowledge the receipt of a copy of a Circular Despatch from the Colonial Secretary to His Excellency the Lieutenant Governor, together with certain enclosures from the Society of Arts of London, in which are stated the advantages that would accrue from a correspondence with that Society in regard to certain objects which it is the design of that enlightened and patriotic body to promote.

The President and Executive Committee of the New Brunswick Society highly appreciate the objects contemplated by the Society of Arts, and consider them to have a direct bearing upon the best interests of this Colony. In fact the proposition made so courteously by the latter body, seems to afford an opening for one of those forms of correspondence, which it has long been considered peculiarly desirable to establish between this Colony and the Mother Country. There is, probably, a want of knowledge in England concerning many things connected with the resources and capabilities of New Brunswick; and, most undoubtedly, the advice and co-operation of such an able and practical body as the Society of Arts, is calculated to be of very great advantage to us in our endeavours to develope those resources and establish those capabilities.

The New Brunswick Society, therefore, accepts with pleasure the offer of correspondence and co-operation, and begs that His Honor the Administrator of the Government will communicate their views through the proper channel to the Society of Arts.

It is the intention of the New Brunswick Society to hold an Exhibition of the Provincial Arts and Industry in the month of October next; a Report upon which will probably be prepared immediately afterwards. Such a Report is calculated to form the basis upon which the Society of Arts can judge of our resources and industrial position; and I am directed to say that a copy of the proposed official Report will be transmitted as soon as possible after its publication.

Our Exhibition may be considered as an humble offshoot of that world-renowned Exhibition which was first announced to the public by His Royal Highness Prince Albert, as President of the Society of Arts, and which is forever to remain as the type and model of all Industrial Exhibitions.

The New Brunswick Society has already published sundry papers upon subjects connected the Provincial resources and industry, and I am directed to say that these, together with others bearing upon the same subject, shall be likewise forthwith prepared for transmission to the Society of Arts.

I have the honor to be, sir,

Your most obedient, humble servant,

J. ROBB, *Cor. Secretary.*

R. T. PENNEFATHER, Esquire, Private Secretary.

AUDIT REPORT FOR 1850.

The Committee of Audit report that they have examined the account current of the Treasurer, Mr. Joseph Gaynor, together with the explanatory vouchers, and they find the fiscal affairs of the Association to be as follows:—

1850.	*The Treasurer has received through the various Collectors, as follows:*			
Dec. 28.	From York County, (by corrected lists),	£45	15	0
	From St. John,	20	0	0
	From Westmorland,	2	5	0
	From Albert,	3	10	0
	From Carleton,	11	0	0
	From Kent,	0	5	0
	From Northumberland,	4	15	0
	From Gloucester,	6	5	0
	From Restigouche,	6	5	0
		£100	0	0
1850.	*He has disbursed as follows:—*			
April 16.	To Mr. Brannen for Printing,	£3	10	0
July 8.	To Mr. Phillips for Printing,	3	14	6
Oct. 15.	To Mr. Hogg for Printing (Voucher A),	42	8	6
Dec. 28.	Postages and Contingencies,	2	18	1
		£52	11	1
	Leaving balance due to Society, besides the Provincial Warrant for £200,	47	8	11

Respectfully submitted.

FREDERICTON, *8th January*, 1851. R. CHESTNUT, *Chairman.*

ACCOUNT A.

The New Brunswick Society,

1850.	To JAMES HOGG, Dr.			
Jan. 25.	To Notice in Reporter, 4s. 6d.; Bills, 5s.; Notices, 9s.,	£0	18	6
Feb. 4.	To 50 Copies Reporter, at 3d.,	0	12	6
March 11.	To Notices of Meeting, 7s. 6d.; 125 Handbills, 12s. 6d.,	1	0	0
Ditto 16.	To 300 Circulars, at 7s. 6d. per 100,	1	2	6
April 5.	To 20 Copies Reporter, at 3d.,	0	5	0
July 4.	To 1000 Copies 6 sheet Pamphlet, at 120s. per sheet,	36	0	0
	To covering the same, at 3s. 9d. per 100,	1	17	6
Oct. 14.	To 100 Handbills,	0	12	6
		£42	8	6
Oct. 14.	By Cash received,	42	8	6

JAMES HOGG.

AUDIT REPORT FOR 1851.

The Committee of Audit report that they have examined the account current of the Treasurer, Mr. Joseph Gaynor, together with the explanatory vouchers, and they find the financial affairs of the Association to be as follows:—

Dec. 31 (1851). *The Treasurer credits as follows:—*

Balance from last Audit,	£47	8 11
Provincial grant for 1850,	200	0 0
Collections in York County,	29	15 0
Ditto Sunbury,	2	0 0
Ditto King's, (Upham,)	3	0 0
Ditto St. John,	0	10 0
Ditto Charlotte,	10	5 0
Ditto do.	2	15 0
Ditto Northumberland,	5	15 0
Ditto Gloucester,	4	2 6
Ditto Restigouche,	6	12 0
	£312	3 5

He has disbursed as follows:—

Aug. 5. To Messrs. Chubb & Co. for printing 8000 copies (English and French,) of Tract on Farm Management,	£29	0 0
Oct. 17. To Mr. Hogg for Printing (Voucher B),	77	6 8
Ditto 6. To Premiums awarded at St. John Exhibition,	30	0 0
Ditto do. To the Woodstock Farmers and Mechanics Library,	5	0 0
Jan. 7 ('52). To Secretary, Postages and Contingencies,	13	3 3
	£154	9 11
Leaving balance due to Society of	£137	15 6

Respectfully submitted.

FREDERICTON, *7th Jan.*, 1852. J. A. BECKWITH, *Chairman.*

ACCOUNT B.

The New Brunswick Society,

1850. To JAMES HOGG, DR.

Oct. 14.	To 33 Copies Reporter, 8s. 4d.; Notice, 4s. 6d.; Bills, 7s. 6d.	£1	0 4
1851.			
Jan. 6.	To 75 Bills, 10s.; 50 Copies Reporter, 12s. 6d.,	1	2 6
Feb. 26.	To Notice in Reporter, 4s. 6d.; 50 Bills, 7s. 6d.,	0	12 0
March 29.	To 500 Copies ¾ sheet Pamphlet, at 80s., and covering same,	4	2 6
Aug. 1.	To printing 1000 Copies 6½ sheet Pamphlet, at 110s. per do.,	35	15 0
	To 3000 additional Copies, at 60s. per sheet,	58	10 0
	To covering 4000 Pamphlets, at 2s. 6d. per 100,	5	0 0
		£106	2 4
Dec. 30.	By Cash received,	77	6 8
Ditto.	Balance due,	£28	15 8

JAMES HOGG.

W. B. Jack Esqr

NEW BRUNSWICK SOCIETY,

FOR THE ENCOURAGEMENT OF

Agriculture, Home Manufactures & Commerce,

Throughout the Province.

INSTITUTED AT FREDERICTON, N. B., AUGUST 30TH, 1849.

OFFICERS FOR 1853.

Patron—His Excellency Sir Edmund W. Head, Baronet.

President—His Honor Mr. Justice Street.

VICE PRESIDENTS:

York,	*R. Chestnut,*
"	*J. A. Maclauchlan,*
St. John,	*R. Jardine,*
Charlotte,	*Hon. H. Hatch,*
King's,	*A. C. Evanson,*
Queen's,	*Hon. T. Gilbert,*
Sunbury,	*C. L. Hatheway,*
Carleton,	*H. E. Dibblee,*
Victoria,	*L. R. Coombes,*
Restigouche,	*A. Barberie, M. P. P.,*
Gloucester,	*W. Napier,*
Northumberland,	*J. Wright,*
Kent,	*Hon. D. Wark,*
Westmorland,	*Hon. A. E. Botsford,*
Albert,	*Lieut. Col. Clarke.*

Corresponding Secretary—*J. Robb, M. D.*

Recording Secretary—*R. Fulton.*

Treasurer—*J. Gaynor.*

Other Members of the Executive Committee—*D. S. Kerr, J. A. Beckwith, J. Gregory, W. Carman, R. Gowan.*

ACT OF INCORPORATION.

An Act to incorporate "The New Brunswick Society for the encouragement of Agriculture, Home Manufactures and Commerce throughout the Province," and to regulate and provide for the same.

Passed 26th April, 1850.

"WHEREAS James Robb, Robert Chestnut, Robert D. James, "Robert Jardine, James Brown, Calvin L. Hatheway, William "Foshay, Allen C. Evanson, the Honorable William Crane, William "M'Leod, Francis Ferguson, Dugald Stewart, Charles Perley, "Thomas Gilbert, James S. Beek, John A. Beckwith, Joseph Gaynor, "Thomas R. Barker, William H. Odell, Frederick W. Hatheway, "William Watts, Senior, the Honorable Lemuel A. Wilmot, David "S. Kerr, George Todd, Constantine Connelly, John T. Smith, "James Taylor, James A. Maclauchlan, Henry Fisher, and numerous "other inhabitants of the Province, have lately formed themselves "into a Society, called 'The New Brunswick Society for the "encouragement of Agriculture, Home Manufactures and Commerce "throughout the Province,' which Society is intended to improve the "condition of the above important branches by all practical and "effective means that may be available for the purpose: And "Whereas it is deemed advisable to obtain an Act of Incorporation "for the more efficient working of the said Society;"

I. Be it therefore enacted by the Lieutenant Governor, Legislative Council and Assembly, That James Robb, Robert Chestnut, Robert D. James, Robert Jardine, James Brown, Calvin L. Hatheway, William Foshay, Allen C. Evanson, the Honorable William Crane, William M'Leod, Francis Ferguson, Dugald Stewart, Charles Perley, Thomas Gilbert, James S. Beek, John A. Beckwith, Joseph Gaynor, Thomas R. Barker, William H. Odell, Frederick W. Hatheway, William Watts, Senior, the Honorable Lemuel A. Wilmot, David S. Kerr, George Todd, Constantine Connelly, John T. Smith, James Taylor, James A. Maclauchlan, Henry Fisher, their associates and successors, be and they are hereby erected into a Body Corporate, under the name of "The New Brunswick Society for the encouragement of Agriculture, Home Manufactures and Commerce throughout the Province," and shall have and enjoy all the powers made incident to Corporations by the fifth section of an Act of the General Assembly of the Province made and passed in the sixth year of the Reign of His late Majesty King William the Fourth, intituled *An Act to prescribe certain general regulations in respect to Corporations*; provided always, that the first meeting of the said Society, under and by virtue of this Act, shall on due notice thereof be held on the first Wednesday in July in the year of our Lord one thousand eight hundred and fifty; and provided also, that the persons who are now office bearers of the Society shall continue to act for the periods for which they have been

appointed, or until others be chosen in their place agreeably to the laws and regulations of the said Society.

II. And be it enacted, That whenever the said Society shall make it appear by certificate under the hand of the Treasurer of such Society, that a sum not less than one hundred pounds has been actually subscribed and paid to the said Treasurer by the members of such Society, and the President of the said Society shall make application, enclosing the said certificate, to the Lieutenant Governor or Administrator of the Government for the time being, for aid in supporting the said Society, it shall and may be lawful for the Lieutenant Governor or Administrator of the Government for the time being, by and with the advice and consent of the Executive Council, to issue his Warrant on the Treasurer of the Province in favour of the Treasurer of the said Society for double the amount that shall have been so subscribed and paid as aforesaid; provided always, that the annual sum to be granted to such Society shall not exceed the sum of two hundred pounds currency.

III. And be it enacted, That if the said Society shall receive the said allowance or any part thereof from the Public Treasury, it shall offer annually by way of premiums, or shall apply otherwise at its discretion, for the encouragement of the objects of the said Society, a sum not less than the amount actually received out of the Public Treasury, and it shall also transmit to the Office of the Provincial Secretary, on or before the first Thursday in January annually, a statement of its proceedings in relation to the expenditure of such moneys, specifying the nature of the encouragement proposed or given by the said Society, and the objects for which its premiums have been offered and paid, and to whom they were awarded and given, and shall accompany the same with such general observations concerning the state of agriculture, home manufactures and commerce throughout the Province, as may be deemed important and useful.

IV. And be it enacted, That if the said Society shall neglect in any year to comply with the foregoing provisions, it shall forfeit its claims to the Legislative bounty for the year next succeeding.

V. And be it enacted, That the said Society may by its officers define and fix bounds of sufficient extent for holding of an annual show and fair, or other exhibition for carrying out the objects of the said Society, in such place as the said officers may select and appoint, with convenient passage ways to and about the same, on the days for holding the said show and fair, or other exhibition as aforesaid, within which bounds no person shall be permitted to enter or pass, unless in conformity with the regulations of the said Society.

VI. And be it enacted, That if any person shall, contrary to the regulations of the said Society, and after notice thereof, enter or pass

within the bounds so fixed he shall forfeit a sum not exceeding ten shillings, to be recovered before any Justice of the Peace who shall have jurisdiction thereof; and all fines so recovered shall be paid over by the said Justice of the Peace to the Treasurer of the said Society, towards the funds of the said Society.

VII. Provided always, and be it enacted, That nothing in this Act contained shall authorize the said Society to occupy or include within the bounds which it may fix for the purpose aforesaid, the land of any person without his consent, or to occupy any public street or highway in such a manner as to obstruct the public use thereof.

VIII. And be it enacted, That this Act shall continue and be in force until the first day of May which will be in the year of our Lord one thousand eight hundred and fifty two.

An Act to alter and amend an Act, intituled *An Act to incorporate the New Brunswick Society for the encouragement of Agriculture, Home Manufactures and Commerce throughout the Province, and to regulate and provide for the same.*

Passed 28th March, 1851.

"WHEREAS it is deemed expedient to make the Grant allowed "by the above mentioned Act to the New Brunswick Society for the "encouragement of Agriculture, Home Manufactures and Commerce "throughout the Province, to the extent of two hundred pounds, on "similar terms as to County Agricultural Societies, and to alter the "time for transmitting the proceedings of the said Society to the Pro-"vincial Secretary from the first Thursday in January to the second "Wednesday in April following;"

I. Be it therefore enacted by the Lieutenant Governor, Legislative Council and Assembly, That the second section of the above mentioned Act be and the same is hereby repealed.

II. And be it enacted, That whenever the said Society shall make it appear by Certificate under the hand of the Treasurer of such Society, that a sum not less than twenty-five pounds has been actually subscribed and paid to the said Treasurer by the Members of such Society, and the President of the said Society shall make application, enclosing the said Certificate to the Lieutenant Governor or Administrator of the Government for the time being, for aid in supporting the said Society, it shall and may be lawful for the Lieutenant Governor or Administrator of the Government for the time being, by and with the advice and consent of the Executive Council, to issue his Warrant to the Treasurer of the Province in favour of the Treasurer of the said Society, for treble the amount that shall have been so subscribed and paid as aforesaid; provided always, that the annual sum to be granted to the said Society shall not exceed the sum of two hundred pounds currency.

III. And be it enacted, That the time appointed by the third section of the above mentioned Act for transmitting to the Office of the Provincial Secretary a statement of the proceedings of the said Society, in relation to the expenditure of the moneys therein specified, be and the same is hereby altered from the first Thursday in January to the second Wednesday in April following in each year.

IV. And be it enacted, That this Act shall continue and be in force until the expiration of the Act to which this is an amendment and no longer.

An Act to continue an Act to incorporate the New Brunswick Society for the encouragement of Agriculture, Home Manufactures and Commerce throughout the Province, and to regulate and provide for the same, also an Act to alter and amend the said Act.

Passed 18th February, 1852.

BE it enacted by the Lieutenant Governor, Legislative Council and Assembly, That an Act made and passed in the thirteenth year of the Reign of Her present Majesty Queen Victoria, intituled *An Act to incorporate the New Brunswick Society for the encouragement of Agriculture, Home Manufactures and Commerce throughout the Province, and to regulate and provide for the same;* also an Act made and passed in the fourteenth year of the same Reign, intituled *An Act to alter and amend an Act intituled An Act to incorporate the New Brunswick Society for the encouragement of Agriculture, Home Manufactures and Commerce throughout the Province, and to regulate and provide for the same,* be and the same are hereby continued and declared to be in force until the first day of May which will be in the year of our Lord one thousand eight hundred and fifty-five.

REPORT OF ANNUAL MEETING.

The adjourned Annual Meeting of the Society was held in the County Court House at 7 o'clock, p. m., on Tuesday the 11th day of January, 1853.

The Society was called to order by the President, Mr. Justice Street, who, thereupon, addressed the Meeting as follows:—

"GENTLEMEN,—As the period for which I was elected your President, closes on this the day of your Annual Meeting, I feel it right before leaving this chair to address you shortly on the subject of the proceedings of the Society during the past year; but this task has been rendered comparatively light to me from the very able and elaborate report that has been drawn up for the Executive Committee by our talented and energetic Corresponding Secretary, Dr. Robb, which will be read to you by himself; and I must here observe, that I consider not only the Executive Committee, and the Society generally, but the public at large, deeply indebted to that gentleman for the time and attention he has given, and the energy he has displayed, in devoting so much of his scientific knowledge, and active, unremitting exertions throughout the past year, to the promoting the objects of our late Exhibition, to which I attribute, in a great degree, its eminent success—the preparing for and carrying out of which, and the winding up the accounts thereof, and closing the business connected therewith, has formed the leading objects of the Society's doings during the past year. But as the report I have alluded to will contain a detailed account of all the proceedings in that matter since the publication of the third number of the Society's Journal in August last, and as that number contains a full detail of all proceedings up to that time, which you have no doubt all read, it is unnecessary for me to say more here, than that the Exhibition proved eminently successful, and I believe far more so than was expected, and afforded the means of a display, at one and the same time and place, of the various internal resources of the Province, that could not have been accomplished in any other way, and which much exceeded not only what the people of the Province themselves seemed aware of, but also what strangers had any idea the Province could produce; and will, I feel confident, be productive of all that future good in its results that was looked forward to by members of this Society when the scheme was determined on at the public meeting held in October, 1851; and we have thus made a beginning in carrying out this leading object of primary interest in our institution; its great success,

I trust, will enable us to follow it up, by regular periodical Shows and Fairs in different parts of the Province, hereafter. But these exhibitions are, I find by experience, attended with a heavy expense to get them up and carry them through in a way to do credit to the country, and to make them so attractive as to draw the attendance, not only of people from all the distant parts of the Province, but also of strangers from other countries—the latter I consider an object of great importance.

"It will be seen by the proceedings at the quarterly general meeting of the Society, held on the 7th of April last, that for the reasons therein stated it was determined that it should be left to the discretion of the Executive Committee to make such appropriations for the different objects then in view, including the Exhibition, as they might deem expedient, under the circumstances, which would have to be governed by the amount of funds they might receive, and all the funds of the Society were thereby placed at our disposal to carry out the objects in view. The private subscriptions from the different Counties proved but of trifling amount, except in the County of York, but liberal grants were made from several County and District Agricultural Societies, out of their respective funds, in aid of the undertaking, which in some measure made up for the want of private subscriptions. These, with the Legislative grants, and the money received for entrance tickets, have supplied us with funds sufficient to cover all the expenses of the Society for the year, with a small surplus, as will be seen by the Treasurer's account.

"Among the expenses of the year it will be seen, that in addition to what the Exhibition itself has cost, a heavy item in the expenditure is for printing, which the interests of the Society necessarily required. The last number of our Journal consisted of 125 pages, and 4,000 copies were printed for gratuitous distribution; and the amount of premiums awarded, also forms a large item in the expenditure. But great as the expense has been, I trust when you consider the beneficial results, you will think the money has been usefully applied, and that we have not abused the trust confided to us. It must also be recollected that a large portion of the expense incurred in the erection and ornamenting of the buildings for the Exhibition in a way to make them attractive, has been paid back by the amount received for entrance tickets. But still we are not prepared to recommend the repetition of such Exhibitions oftener than once in every three years, not only on account of the heavy expense, but also from the timely notice to parties intending to compete, required, to prepare for the same, and also for the additional reason, that they would lose their attraction and effect by being repeated at periods too close together; and I should strongly recommend that, in future, the time and place

for holding the same, should be determined on at least 18 months or 2 years previous thereto, and notice to the public given thereof; for although a year's notice was given of the one we have had, many of the mechanics in the Province, offered nothing for competition, giving as a reason that they had not had time to prepare any thing, from the shortness of the notice, without neglecting the private orders they had to fulfil; and it has been urged upon us, that longer notice should be given. It may be even possible at some future time, when the railways are in operation, to meet our neighbours in Nova Scotia and Prince Edward Island, in friendly competition at some central place convenient to all.

"Although this Exhibition has been the primary and principa object of the Society for the past year, and has made it a very busy and laborious one to the Executive Committee, it has not been the only object of our attention. Several valuable Essays having been received on the subject of Farm Management, on Orchards, and the Management of Fruit Trees, and on the Growth of Turnips, from competitors for the premiums offered by the Society at their quarterly meeting of the 22d of April, 1851, the same have been reported on and the premiums awarded, which were procured and delivered to the respective parties by His Excellency, in public, at the close of the Exhibition, and the Essays are published in the third number of our Journal. Valuable reports from the several committees appointed to report on the Breeding and Improving of Farm Stock—on the Breeding and Management of Pigs—on Agricultural Warehouses and Agencies—on the Provincial Agricultural Statistics—have been made and are published in the last number of our Journal, which are all well worthy the attentive perusal of persons taking an interest in those subjects. It will be also seen by the publication in our last number, that a communication was in June last opened between the Society for the encouragement of Arts, Manufactures and Commerce, in England, and this Society. The object of the English Society in making this communication, is one that I think of very great importance to us, and may prove of serious benefit in the result. Their expressed object is 'to consider the best means of making that Society useful in advancing the knowledge of the resources and capabilities of the numerous British Colonies in all quarters of the world, and in furnishing the Colonies themselves with such information as may be required on subjects connected with Arts, Manufactures and Commerce.' In this communication was enclosed statements explaining their constitution and the objects they have in view in opening a correspondence with similar Societies in the Colonies, for which a committee of their members appears to have been appointed. These documents were immediately taken into consideration by the Executive Committee, and the Corresponding Secretary was directed to write an

answer, expressing our readiness to enter into their views, which have all been published in last number, and no doubt have been, or may be read by you all. To our Secretary's letter he has lately received the following satisfactory answer :—

"'Society of Arts, Adelphi, London,
23rd *November*, 1852.

"'Sir,—I am instructed by the Colonial Committee of the Society of Arts to acknowledge the receipt of your letters of the 24th of June, forwarded to me by the Right Hon. Sir J. Pakington. The Committee feel much gratified by the zeal and spirit with which their proposal has been met and seconded by the Council of the New Brunswick Society for the encouragement of Agriculture, Manufactures and Commerce. They confidently trust that the correspondence will hereafter lead to valuable practical results. The Committee will be very glad to receive the report on the Exhibition as soon as it is prepared. In the mean time, and not knowing in how far the following suggestion may be rendered necessary by this report, I am desired to make to you the following suggestion, a similar one having already been made to all the other Colonies.

"'The Committee consider that it would greatly facilitate future inquiries if you would be so good as to have a general list of natural productions and raw produce prepared and sent to me. This list should include, as far as possible, the name of every substance, whether mineral, vegetable, or animal, occurring or being produced in the Colony, whether used and known in commerce or not, indeed it is in fact even more important that the list should include the latter than the former, as the chief object which the Committee have in view is to become acquainted with those Colonial productions which are not yet known in commerce. It would be of advantage if, in the enumeration of these substances, the local or native names were given in addition to the English or European ones, accompanied by memoranda of any uses to which the substances are applied, and of the probable facility with which they could be supplied in large quantities, should a demand arise.

"'If there are, however, any productions not at present articles of commerce, the value of which you are desirous of having ascertained, I am desired to invite you at once to send them over to the Society, and they shall immediately be brought under the notice of competent persons for practical examination and report; as in so doing it is far more satisfactory to make trial of any new substance on a manufacturing scale; it will greatly facilitate the labours of the Committee if you will send large samples, say of at least a half

hundred weight of any gum, resin, oil, dyestuff, fibre, ornamental wood, and at least ten pounds of any metallic ore or stone.

"'I am, sir, yours very faithfully,

"'EDWARD SOLLY, *Secretary.*

"'J. Ross, Esquire,

"'Secretary Society of Agriculture and Commerce, Fredericton, N. B.'

"I think, gentlemen, we must all agree in the opinion, that great advantages to the Province may arise from the kind of communication proposed by this letter, and the extensive information and assistance in our own objects we are likely to derive therefrom. The officers of their Society are composed of noblemen and commoners, taken from persons of the highest rank and standing in the mother country, both for respectability, science, and general knowledge, and we have never had so favorable an opportunity of making the resources and capabilities of our country generally known in the old world, as this proposal affords. I would therefore strongly recommend that a committee of three or five members be appointed to inquire into, collect, and make out a general list of all the natural productions and raw produce of the country, with the name of every substance, and all the other particulars suggested by Mr. Solly's letter, that I have just read, for transmission to him as requested, with the copy of our report made at this meeting, as soon as published, and I would recommend that as many as 50 copies or more of our next number, which will contain the whole report of our Exhibition, be sent as soon as published to the Secretary of the English Society of Arts, for the use of the members of that Society, and any others they may furnish them to; and a few copies of each of our past numbers it would also be desirable, I think, to add, although Mr. Jackson, of railway note, when he was here, applied for and got 50 or 100 copies of each of the published reports of the Society to take home with him.

"There is another subject I wish to call the attention of this meeting to. You probably are all aware that preparations are now in progress for two great Exhibitions for the industry of all nations to be held in the course of this year—one in New York on the 2nd of May next, and the other in Dublin, some time in the course of the year, but on what particular day it is to open I am not yet informed. Communications have been made by authorised Corresponding Agents of both, to our Corresponding Secretary, inviting this Province to come forward in the competition with others, and it is a matter for our serious consideration, what measures, (if any) we should take for securing to the Province a creditable representation at one or both of these Exhibitions. It will be recollected that we placed ourselves in the back ground altogether at the one held in London in 1851, which was afterwards much regretted by many, as it turned out we could

have furnished articles of agricultural produce that would have competed with any there exhibited of the same kind; and as it is an object of serious import that samples of our grains and roots should be seen, that they may be correctly judged of in the mother country, it would perhaps be more advantageous that we should be represented in the Dublin Exhibition than in that of New York, if we should be confined to one only, especially as the agent of that informs us that the Commissioners in Dublin would be willing to bear a proportion of the expense of transporting contributions from the Colonies. I will now read two letters from the agents of the respective directors of these two intended Exhibitions:—

"'ST. JOHN, 9*th October*, 1852.

"'DEAR SIR,—During my late visit to Dublin, I was appointed by the Commissioners for the Exhibition of 1853, to be held in that City, their Honorary Correspondent for New Brunswick. The papers giving me authority to act in that capacity, together with printed forms for distribution, &c., are coming out by the next mail.

"'In the mean time, I take the liberty of requesting you, as Secretary to the Provincial Exhibition, to inform me whether in your opinion contributors would be willing to send their articles now under exhibition across the Atlantic.

"'Having but just returned from Great Britain, I regretted my inability to have been a witness of exertions, by all accounts, highly creditable to the Province, and it is to be hoped that so good an opportunity of making known to the mother country our natural resources, agricultural inventions, and mineral treasures, will not be thrown away.

"'The Assistant Secretary to the Commissioners in Dublin informed me that they would be willing to bear a proportion of the expense of transporting contributions from the Colonies, and the poor display made by our Province at the Grand Exhibition of 1851, renders it still more desirable that every advantage should be taken of facilities so freely and kindly offered.

"'I am, dear sir, your obedient humble servant,

"'ROBERT MORRIS HAZEN.

"'JAMES ROBB, Esquire, M. D.,
"'Secretary to Provincial Exhibition.'

"'WASHINGTON, D. C., 6*th Sept.*, 1852.
National Hotel.

"'SIR,—I beg to solicit your kind attention to the enterprise, a copy of whose Circular I herewith transmit, and for any further numbers of such, or for any other information you may require, refer you to the Board, who, if addressed through Wm. Whetten, Esquire, 53 Broadway, their Secretary, will be happy to furnish you therewith.

"'I have been appointed by the Board as the Special Agent to visit and solicit the interest of Canada and the other British North American Colonies, and am at present here to receive the sanction of the Hon. Executive Committee, under whose auspices, and with whose special introductions and commendations to the Governors of those respective Provinces I shall personally visit Canada, Nova Scotia, and New Brunswick.

"'There is much interest felt here in your Provincial Exhibition, to be held in October next, and I beg, through you, as the Secretary of that enterprise, to lay before its directors, and call their special attention to the World's Fair at New York. It will be unnecessary to speak of the great mutual advantage to be derived from a creditable representation of the British North American Provinces on this occasion at New York. The opening will be an occasion of some ceremony. The President of the United States and other high officials will honor it with their presence; the Governor General and Lieutenant Governors of the other Provinces will have invitations to attend, and the opportunity will be perhaps the best that can ever be afforded for personal explanations and friendly adjudications of the complex question of reciprocal trade between the Provinces and this country.

"'Any communications addressed to me, care of Wm. Whetten, Esquire, Secretary, &c., 53 Broadway, will be kindly acknowledged.

"'I beg to refer you to New York Albion, 4th September, 1852, noticing this matter.

"'I remain your obedient servant,

"'JAMES WHITMAN.

"'David S. Kerr, Esquire,
"'Secretary Provincial Exhibition.'

"From these letters you will be able to judge what is best to be done, and perhaps some gentleman present will, in the course of the evening, propose a resolution on the subject for the consideration of the meeting. My own opinion is, that it is a subject that should be taken up by the Government, and a recommendation submitted to the Legislature for pecuniary aid.

"I think it necessary to call your attention also to a report made by Mr. Professor Jack, on the subject of existing difference in the size of the half bushel measures used in different places in this Province, which is as follows:—

"'King's College, Fredericton,
7th October, 1853.

"'The Jury appointed to determine the weight of the grains shown at the Provincial Exhibition, having called upon me to examine two half-bushel measures, in the contents of which they had detected a

discrepancy of 1-32, it appeared to me, from the rough measurements I was able to make on the spot, that the smaller of the two, or that marked "County of York," and stamped G. III. R., on the bottom, was the Winchester, (by which the grain was all measured at the Exhibition,) and the other the Imperial half-bushel. As both the measures, however, are very irregular in shape, their exact contents could only be obtained by a much more careful examination than I was at the time enabled to bestow on them; but as corroborative of the above conclusion, it may be observed that the Imperial bushel actually exceeds the Winchester by 1-32. The Winchester bushel of 1601 (which continued to be the English standard for dry measure up to 1825,) contained 2,124 cubic inches, though it was declared by the statute of the 1st William and Mary that it should be equivalent to 2,150. The Imperial bushel contains 2,218 cubic inches.

"'In the year 1786, the weights and measures of this Province were ordered by an Act of the Legislature to be regulated "according to the standard of His Majesty's Exchequer," and since then no further action has been taken in regard to them. Some time ago, the want of uniformity in our weights and measures, not only with those of Great Britain, but also with each other, attracted my attention, and I prepared a paper on the subject to lay before the Fredericton Athenæum. I am therefore glad that the present practical illustration of the necessity of such uniformity is likely to induce a body as influential as the New Brunswick Society to move in the matter.

"'I am, gentlemen, yours faithfully,

"'W. B. JACK.

"'To the Executive Committee,
"'New Brunswick Society.'

"Such a discrepancy in the measures as this report mentions, ought not to exist, and requires some Legislative enactment to equalize by law the weights and measures throughout the Province, and this Society, I think, should take some action to bring it under the notice of the Legislature at their next meeting. I hope, therefore, some resolution on the subject will be passed this evening.

"I feel, gentlemen, that in justice I ought not to conclude these remarks without some honorable mention being made of those officers of our Society, who, in addition to our Corresponding Secretary, have taken a very active part in the labours attending the Exhibition. Mr. Fulton, our Recording Secretary, has had a great deal of work thrown upon him during the year, in the additional quantity of writing he has had to do, and considering his position in a public office, where his duties probably claim all his time during office hours,

must have made it necessary for him to attend to our business at other times, and as he has done this gratuitously, he is justly entitled to the thanks of the Society; he was also, as a member of the Committee, very active in other labours during the Exhibition week. I have also to mention Mr. Kerr, who we all know has taken a very active and energetic part in promoting the success of the Society from its commencement, and has been most indefatigable in his exertions throughout the whole year in the cause of the Exhibition, and took unwearied pains in securing accommodations for strangers during the Exhibition week. Mr. Carman, Mr. Gregory, and Mr. Beckwith, have also been all very active members of the Committee, and rendered most important assistance in various ways during the Exhibition week, in receiving and taking charge of articles as they arrived, in arranging the sale of tickets of entrance, and making the entries of the contributions as they arrived. The Hon. E. Botsford, the President of Westmorland Agricultural Society, Mr. Jardine, of St. John, and various other Presidents of County Agricultural Societies, as members of the Executive Committee, we are much indebted to, for the readiness with which they gave their assistance immediately on their arrival here, in every way they could be useful; I merely mention the names of a few who took a prominent part, as I cannot enumerate them all, for there were many others, who afforded us most useful assistance, indeed there seemed to be a general desire in all to exert themselves to make the Exhibition go off well. But I must mention Mr. Jardine in particular, as rendering most valuable assistance to us throughout, as well in the preparing for, as during the Exhibition, and to whom I think the public at large owe their best thanks for his valuable services. Mr. Gregory has made a special report of the arrangements he made as to the sale of the entrance tickets, a department left in a great measure to his charge, which report will, in itself, shew the value of his services in that respect, and I know he devoted a great deal of attention and time to it, which was necessary to prevent loss from confusion or mistake. There is one other gentleman in particular, that I think it right to make special mention of, though not of the Executive Committee, particularly as from his holy calling in life we had no right to look for such services from him—I allude to the Rev. Mr. Churchill, who acted as Chairman of the Committee of Fine Arts, in the place of the one originally appointed, and kindly assisted in superintending the arrangement of the rooms in the Province Building, set apart for the various productions of the Fine Arts, and the arrangements there made were governed by so much good taste and judgment, that those rooms formed the greatest attraction in the whole Exhibition, and were universally admired for the beauty, taste, and good order displayed in the distribution of the numerous articles there exhibited.

For these services the Executive Committee felt greatly indebted to him and his able assistants, Mr. G. Botsford and Mr. Wilkinson.

"I think it right to mention to this meeting that some provision is required to be made for the safe and convenient keeping of the books, accounts, papers, and other documents belonging to the Society, which are now becoming too voluminous to be kept at the private rooms of the Corresponding Secretary, as it is already attended with some inconvenience to him; but this may be a subject for the Executive Committee to provide for, and if this meeting is of that opinion, it can be left to them to attend to; but these documents should be kept in some convenient place where members of the Society can have access to them.

"I now call on the Corresponding Secretary to read his report, after which, gentlemen, the Treasurer's account will be laid before you."

The Corresponding Secretary, on behalf of the Executive Committee, then submitted to the Society the Report of the Committee on the subject of the Provincial Show and Fair, held at Fredericton in October last. On motion, the said Report and accompanying documents were ordered to be printed and published forthwith.

The Treasurer read an abstract of his account with the Society for the year 1852, and handed in the same, together with his general account in detail and accompanying voucher, whereupon

Ordered, That Messrs. G. Botsford, S. Babbit, and W. H. Gall, be a Committee to audit and report upon the same.

Also ordered, That the said account and report be printed for general dissemination.

Mr. Gregory, on behalf of the members of the Executive Committee, resident in Fredericton, then presented the following Address to His Honor the President:—

"*To the* Hon. Judge Street, *President of the New Brunswick Society for the encouragement of Agriculture, Home Manufactures and Commerce.*

"The members of the Executive Committee of the New Brunswick Society, before the close of their official existence, beg to express to your Honor their sense of the manner in which you have, during the past year, executed the duties of President of the Society, and Chairman of the Executive Committee.

"We deprecate the imputation of formality on the present occasion, and beg to tender to you the sincere homage of our joint and individual respect for that ability and those high principles by which you have been guided in the discharge of your duties, which have been executed not only to our entire satisfaction, but in such a

manner as to be the means of reflecting upon us as a body, a very considerable amount of public credit.

"The great act of our official existence has been the late Exhibition. Its satisfactory completion was the result only of unremitting exertions. The crisis demanded a mind ever ready to suggest a right course of action, or willing to devote itself to its accomplishment when suggested by others. Such a mind we have found in you, who have ever been foremost in the work. From the hour of your appointment up to the present moment, there has been no relaxation. On many occasions, the distance of your residence from our ordinary place of meeting, the respect due to your age and distinguished position as a Judge, occurred to us as sufficient reasons for putting off the transaction of business, the proper time for which seemed to have arrived; but we ever found to be useless our study of what we conceived to be peculiarly due to you: you were intent on the work, and no thought of your personal convenience had any weight with you. Self-respect entitles us to assert our active co-operation in the business of the Society; but when, on other and later occasions, we deemed that the calls for our time and attention at least equalled our resources, we cannot forget that in order to effect the most thorough discharge of the duty we had undertaken, you suggested daily meetings, and that, during the course of these, your punctuality was precise and uniform, your patience untiring, and your perseverance indomitable.

"We hope that you will find it convenient to give the Society the benefit of your services for another year; but whatever may be the result of the approaching election of office-bearers, we individually and collectively earnestly desire at the present time to express to you our high sense of the manner in which you have discharged your duty, the satisfaction we have enjoyed under your Presidency, our confidence in the integrity of your judgment, and our pleasure in recording, as the result of our intercourse during nearly forty specially appointed meetings, that the infirmities incident to our common nature, so slightly interfered in matters requiring perfect self-possession and the nicest discrimination.

"Be pleased, then, to accept our joint and individual thanks for your courteous and most ready and efficient aid; and be assured of our hearty desire that the Giver of every good and perfect gift may preserve you for many years in the possession of ample ability for the discharge of every private and public duty.

"R. CHESTNUT,	W. WATTS, Senr.,
JAMES ROBB,	J. A. BECKWITH,
R. FULTON,	J. GREGORY,
JOSEPH GAYNOR,	W. CARMAN.
D. S. KERR,	

"Fredericton, *January* 11*th*, 1853."

His Honor then replied as follows:—

"Gentlemen of the Executive Committee,

"Next to the satisfaction it must always be to a man to know that he has faithfully discharged the duties of any office he may fill, and exerted himself to the utmost of his power to make the performance of those duties conducive to the public good, is the gratification of finding that such exertions have been justly appreciated by those with whom he has been called upon to act, and who are best able to judge correctly of what he has done. I therefore sincerely thank you, gentlemen, for the very flattering manner in which you have been pleased to express to me your sense of the manner in which I have discharged the duties of President of this Society during the past year; but, while you attribute to me so much merit,—and more, I fear, than I deserve,—I cannot forget, and must not omit to mention, how cordially and actively you have all worked with me in the good cause we have been engaged in, and that without such assistance my exertions could have done but little. You have not only been always ready to carry out any suggestion of mine that you thought beneficial, but you have, severally, from time to time, assisted me by the most valuable original suggestions of your own, and I have felt great relief in the difficulties we have had at times to contend with, in having such an efficient business-like, working Committee associated with me in the work. But I have already, in the address I have just read to this meeting, (which was prepared before I was aware of your intention to pay me this compliment,) so fully expressed my sense of the services you have all rendered to the public in getting up the late Exhibition, that it is unnecessary for me to say more now on that head.

"As to your request that I will continue in the office of President for another year, if elected, I can only say, that although I would much rather, for several reasons, that some one else should be elected, it not being convenient for me to give up so much time to it as it requires, and I think in general it is better that the President should be changed yearly; yet as you have in so kind a manner requested me to serve once more, I will not be so ungracious as to refuse it, if this meeting should think it advisable to elect me again.

"In answer to the last passage in your address, gentlemen, I sincerely thank you for the kind manner in which you have conveyed your good wishes for my future welfare, comfort and happiness, and I beg to assure you that the same good feeling for you all is reciprocated on my part."

On motion of the Rev. C. Churchill, the thanks of the Society were given to the President and other officers of the Society, for their very laborious exertions on behalf of the Society during the year 1852.

It was also resolved, That the best thanks of the Society were due to the gentlemen who drew up for the Society the various papers published in the last number of the Journal.

The following gentlemen were elected officers of the Society for the year 1853:—

Patron—His Excellency Sir Edmund W. Head, Baronet.

President—His Honor Mr. Justice Street.

VICE PRESIDENTS:

York,	*R. Chestnut,*
"	*J. A. Maclauchlan,*
St. John,	*R. Jardine,*
Charlotte,	*Hon. H. Hatch,*
King's,	*A. C. Evanson,*
Queen's,	*Hon. T. Gilbert,*
Sunbury,	*C. L. Hatheway,*
Carleton,	*H. E. Dibblee,*
Victoria,	*L. R. Coombes,*
Restigouche,	*A. Barberie, M. P. P.,*
Gloucester,	*W. Napier,*
Northumberland,	*J. Wright,*
Kent,	*Hon. D. Wark,*
Westmorland,	*Hon. A. E. Botsford,*
Albert,	*Lieut. Col. Clarke.*

Corresponding Secretary—*J. Robb, M. D.*
Recording Secretary—*R. Fulton.*
Treasurer—*J. Gaynor.*

Other Members of the Executive Committee—*D. S. Kerr, J. A. Beckwith, J. Gregory, W. Carman, R. Gowan.*

The following resolutions were then moved and unanimously adopted:—

Resolved, That this Society does not consider it advisable to hold any Provincial Exhibition in the year 1853, but is strongly of opinion that the Province should be adequately represented at one or both of the Exhibitions to be held in New York and Dublin; and further

Resolved, That a Committee be appointed to confer with the Provincial Government, with any other committees in the Province, and with any of the Agents acting on behalf of the aforesaid Exhibitions, as to the best mode of carrying out the same; and that Judge Street, the Rev. Mr. Churchill, Dr. Robb, and D. S. Kerr, Esquire, be the Committee.

Resolved, That a committee of five members of the Society be

appointed to collect, and make out a general list of all the Natural Productions and raw produce of the country hitherto discovered or known in this Province, with the name of every substance, whether mineral, vegetable, or animal, and whether used and known in commerce or not, and any and what uses to which the same or any of them are applied, and the probable facility with which they could be supplied in large quantities if required, with a view to transmitting such list to the Secretary of the Society for the encouragement of arts, manufactures, and commerce, in London, agreeably to their request of 23d November last; and that Drs. Robb, Toldervy, Hon. A. E. Botsford, R. Jardine, J. A. Beckwith, and William Carman, Esquires, be the said committee.

Resolved, That a committee be appointed to take up Professor Jack's report relative to the discrepancy of weights and measures, and to prepare a memorial to the Legislature at their next session of Assembly, praying that some legislative enactment may be made for regulating and equalizing the weights and measures throughout the Province; and further, if necessary, that they be authorised to draw up a Bill embodying any of the proposed improvements; and further

Resolved, That Professor Jack, Mr. Kerr, Mr. Beckwith, and Mr. Simonds, be the said committee.

Resolved, That a committee be appointed to consider how the annual reports of the various County and District Agricultural Societies may be hereafter collected and brought together, so that, from the combination of all, an idea of the actual progress of the Province in agricultural improvement may be periodically given to the public; and further

Resolved, That Mr. Beckwith, Mr. Gregory, Dr. Robb, Mr. Simonds, Mr. Jardine, Col. McLauchlan, and Mr. Layton, do constitute the said committee.

Whereas an improved knowledge of the treatment, and ailments of horses, cattle, sheep, and swine, is very desirable for the interests of farmers and others of this Province, and men of science and skill in this department have been hitherto unknown here, and this Society having observed that Mr. A. Cuming, (a gentleman, lately from Scotland, and very highly recommended for his professional attainments and private character,) has been induced by the Saint John Agricultural Society to come out and settle in this country, and that he is desirous of making himself useful in his profession to the Province at large; therefore

Resolved, That this Society regards the offer of the eminent abilities and services of Mr. Cuming, as a valuable boon to this country; and as additional means of making Mr. Cuming known and his services available, that his letter to the Vice President of this Society and

testimonials of character, contained in the last Saint John Agricultural Report, be re-published in the forthcoming report of this Society.

Resolved, That the Executive Committee be instructed to proceed immediately to call for subscriptions and donations in aid of the Society for the ensuing year, in order to obtain the Provincial grant for the same.

Resolved, That the Corresponding Secretary, together with Messrs. Gregory and Kerr, be a standing committee for superintending the printing of the Society.

Resolved, That in furtherance of the objects of this Society by a meeting of its supporters in good fellowship, and as tending to strengthen and advance the cause of agriculture, home manufactures and commerce, throughout the Province, this Society do meet and have a Dinner during the approaching Session of the Legislature at a convenient time, to be fixed by the Executive Committee; and in which the officers, members, and supporters of this Society, in different parts of the Province, with others feeling an interest in the advancement of the country, are respectfully requested to join.

Extracted from the Minutes.

R. FULTON, *Recording Secretary.*

Report on the Provincial Exhibition of 1852.

GENTLEMEN OF THE NEW BRUNSWICK SOCIETY:—

The third Report of the Society, which was published in August last, fully details the steps which had been taken up to that period for holding a grand Provincial Exhibition in Fredericton; and the general plan therein sketched has since been carried out with the most complete success.

The Society may justly be congratulated on having exhibited to the public in a manner not to be impugned or misrepresented, "a true test and living picture" of the capabilities of the Province, and "the point of development to which they had attained" in the year 1852.

The late period of the year fixed upon for the Exhibition was a cause of some uneasiness, but on the whole it would have been hardly possible to have held it under a more favorable concurrence of circumstances. The chances of unpropitious weather and the darkness of the evenings in October, together with the distance of the Grove from town, induced the Committee to hold the chief part of the Exhibition in and adjoining to the Province Building, instead of the Grove, as was originally contemplated; and the progress of things fully justified the Committee in this change of plan.

Negotiations were entered into with M. Stead, Esq., Architect, St. John, who submitted an outline of a building to be placed immediately in front of the Province Hall, and the whole was put into his charge, subject to the control of a Committee, consisting of the President, the Vice Presidents for St. John and York, and the Corresponding Secretary. The arrangement with Mr. Stead was concluded on the 3rd day of July.

The Corresponding Secretary addressed letters to the various Agricultural Societies, Mechanics' Institutes, Local Committees, Manufacturing Establishments, and individuals in various parts of the Province, from most of whom encouraging answers were received.

He likewise attended and addressed public meetings in St. John and Fredericton, and personally visited almost all the Manufacturing Establishments of these Cities. Premium lists, advertisements, and addresses were published and disseminated freely, not only throughout the Province, but elsewhere, and an interest in the scheme was thus generally excited.

By the beginning of September, the Executive Committee had assurances of very general support, not only in donations to the Exhibition fund, but also in regard to articles for Exhibition.

His Excellency the Lieutenant Governor, and Lady Head, consented to assist at the formal opening of the Exhibition. Colonel Murray, of the 72nd Highlanders, promised the attendance of the admirable Band and Pipers of that Regiment. His Honor Judge Wilmot consented to prepare an Oration. The proprietors of the public conveyances offered the use of them for the transportation of articles for Exhibition, and to run them as often as possible at reduced fares. The Fredericton and St. John Telegraph Company allowed the gratuitous use of their offices for communications. The inhabitants of Fredericton offered to give up all the spare room in their houses to ensure the requisite accommodation for visitors, and to exercise a generous hospitality. The Press came forward in favor of the project. The heads of the various Societies, Fire Companies and Trades, assented to the proposition contained in a Circular addressed to them by His Honor the President, that they should assist in the Procession. In short, there was a determination evinced by all to make the Exhibition week one great Provincial holiday.

Early in September the undermentioned gentlemen were appointed Local Agents, whose duty it was to enter all articles for the Exhibition from their respective neighborhoods, and to forward a list of such entries to the Corresponding Secretary:—

For	Grand Falls,	*Sheriff Beckwith,*
,,	Simonds (Carleton Co.),	*J. Jones, Esq.,*
,,	Woodstock,	*James Robertson, Esq.,*
,,	York,	*R. Fulton, Esq., and Dr. Robb,*
,,	Burton,	*Thomas S. Hicks, Esq.,*
,,	Maugerville,	*C. L. Hatheway, Esq.,*
,,	Sheffield,	*J. Burpe, Esq.,*
,,	Canning,	*G. W. Hoben, Esq.,*
,,	Gagetown,	*Sheriff DeVeber,*
,,	Hampstead,	*Wm. Reed, Esq.,*
,,	Saint John,	*R. Jardine, Esq.,*
,,	Saint George,	*A. G. Wetmore, Esq.,*
,,	Saint Andrews,	*Hon. H. Hatch,*
,,	Saint Stephen,	*Rev. Dr. Thompson,*
,,	Campobello,	*Captain Robinson, R. N.,*
,,	Hampton Ferry,	*George Otty, Esq.,*
,,	Sussex Vale,	*A. C. Evanson, Esq.,*
,,	Bend,	*B. Botsford, Esq., M. P. P.,*
,,	Dorchester,	*J. G. Layton, Esq.,*
,,	Sackville,	*C. Milner, Esq.,*
,,	Hillsborough,	*J. Lewis, Esq., M. P. P.,*
,,	Hopewell,	*G. Calhoun, Esq.,*
,,	Harvey,	*J. E. Upham, Esq.,*

For	Buctouche,	*F. McPhelim, Esq., M. P. P.,*
,,	Richibucto,	*Hon. D. Wark,*
,,	Chatham,	*James Caie, Esq.,*
,,	Newcastle,	*P. Mitchell, Esq.,*
,,	Bathurst,	*Wm. Napier, Esq.,*
,,	Dalhousie,	*R. Simonds, Jr., Esq.,*
,,	Cambelltown,	*A. Ferguson, Esq.*

At the same time likewise, the following notice, additional to what had been already published with the Premium List, was put into general circulation :—

"NOTICE.

"All persons having Articles or Live Stock for Exhibition or Competition, are hereby called upon to enter the names of the same with either of the above named Local Agents, on or before Tuesday the 21st day of September, so as to enable the Fredericton Committee to make the necessary arrangements; and the said Local Agents are respectfully requested to forward a list of all entries (except of Live Stock,) made with them to the Corresponding Secretary immediately after said day of entry. Although the 2d of October has been named as the last day of receiving articles in Fredericton, Exhibitors are requested to forward all articles as soon as possible after the entries have been made.

"Arrangements have been made for the *free transmission* of Stock and all articles from the head of the Bay of Fundy to Saint John, by Mr. Whitney's steamers; from Charlotte County (*via* Eastport,) by the *Creole*; from St. John and intermediate places, to Fredericton, by the steamers of Messrs. Hatheway & Small; and from the Grand Falls and Woodstock, by steamers also, if the water is favorable.

"Parties intending to avail themselves of this privilege, must procure a Certificate from the Local Agent that the articles to be so conveyed have been duly entered for the Provincial Show.

"Aid to a certain extent will be given in other cases, as before published.

"Articles may be stored free of expense in the Custom House of Saint John, and will be taken charge of and forwarded from thence by Mr. George Sutherland.

"Three days' hay will be provided in Fredericton for Live Stock. All Stock must be wholly under the charge and at the risk of their respective owners or their agents. Owners must likewise provide sufficient halters.

"Live Stock should be on the Show Ground, in Mr. Odell's Grove, at or before 8 o'clock on the morning of Wednesday the 6th of October. They may be removed after 4 o'clock, p. m., if desired.

"Stock and all articles, when entered at Fredericton, will be indi-

cated by a numbered card, corresponding to the entry in the Secretary's book, so that the Judges may decide on the merits of the animal or article without knowing the name of its Exhibitor.

"Any communication or interference with the Judges on the part of Exhibitors, will prevent persons so interfering from receiving a Premium.

"Exhibitors are requested to affix proper labels and prices to all manufactured articles entered for Sale or Competition.

"After the Exhibition has been closed, an Auction Sale may be had if desired by Exhibitors.

"Vice-Presidents of the New Brunswick Society, together with the Presidents and Directors of Agricultural Societies and Mechanics' Institutes, are respectfully invited to attend on Monday, and assist during the whole of the Exhibition week.

"The loan of Pictures, Ornaments and Curiosities of all kinds, is respectfully requested. Every care will be taken of the same, and the contents of the Exhibition Building will be insured against fire.

"The public are reminded that the Legislative Grants to the New Brunswick Society, are partly in aid of private subscriptions, and that the plan of the Exhibition is founded on the liberal support of the Provincial Society by the public as well as the Legislature.

"Special Juries will be appointed at the opening of the Exhibition, who shall be instructed to name a Chairman and Secretary from among themselves, and to award the Premiums under their respective classes.

"Agricultural Societies, Local Committees, and others, are invited to send in the names of competent parties (not exhibitors in the department,) and willing to serve upon the various Juries required as under. Juries are to report, in writing, on *or before* Thursday the 7th of October, at 4 o'clock, p. m.

"The following are the classes of objects for which Juries will be required:—

1.—Raw materials from the Mineral Kingdom.
2.—Machinery and Engines.
3.—Stoves, Cutlery, Brass, Tin and Copper Work.
4.—Carriages and Vehicles of all kinds.
5.—Farm Implements and Tools.
6.—Woods, and Implements, and Articles made of Wood.
7.—Musical Instruments.
8.—Garden Produce.
9.—Farm Produce.
10.—Butter, Cheese, Sugar and Honey.
11.—Horned Cattle,
12.—Sheep, Swine and Poultry, } *To Report on Wednesday.*
13.—Horses,
14.—Ploughing.

15.—Domestic Manufactures—Woollen, Linen or Mixed, Woven, Knitted or Plaited.
16.—Millinery, Tailor's Work, Embroidery, and all Needle Work.
17.—Hats, Caps, Furs and Furrier's Work, Dyer's Work.
18.—Leather and Leather Manufactures.
19.—Soap, Candles, Bread.
20.—Salt Meats and Fish, dried or preserved.
21.—Fine Arts (except Embroidery, &c.)
22.—Clocks and Philosophical Instruments.
23.—Discretionary, and non-enumerated articles."

On the 25th September, the Executive Committee, which heretofore only met about once a week, resolved to sit every day during the week preceding the Exhibition, so as to overtake the numerous details connected with the undertaking.

On the 28th, an arrangement was entered into with W. Thomas and J. Knowles, whereby the privilege of selling refreshments within the Exhibition Building and grounds, was secured to them.

The Programme for the week, and the rates of admission, at this time agreed upon, were as follows:—

PROGRAMME OF THE WEEK.

Tuesday, October 5.

Procession—Benjamin Wolhaupter, Esq., High Sheriff of York, has been appointed Grand Marshal.

Societies, Companies and Trades, under the direction of the Grand Marshal, and such Deputy Marshals as may be appointed by their respective Societies, &c., to meet in the Grove at 9, a. m.; start at 10.

Exhibition to open at 2, p. m.

Address to His Excellency the Lieutenant Governor.

Exhibition closes at 5, opens at 6, and closes at 9, p. m.

Wednesday, October 6.

Exhibition open from 12 till 4, and from 6 till 9, p. m.

Cattle Show from 12 till 4.

Lecture in the New Market House, by His Honor Mr. Justice Wilmot, at 8, p. m.

Thursday, October 7.

Exhibition open from 12 till 4, and from 6 till 9, p. m.

Sports in the Grove, to commence at 10 o'clock, a. m.

Highland Games, Putting the Stone, Throwing the Hammer, Foot Races, Jumping Heights and Distances.

Ploughing Match to commence at 11, a. m.

N. B.—Two ridges to be ploughed, each competitor ploughing half a ridge on either side, and a full ridge in the middle. Furrow

slice to be 5 inches in depth, by 9 inches in width, and the horse work to be done at the rate of not less than one Imperial acre in ten hours.

Award of Juries at or before 4, p. m.
Farmers' Dinner in the afternoon.
Ball in the evening.

FRIDAY, OCTOBER 8.

Exhibition open from 12 till 4, and from 6 till 8.
Regatta to commence at 11, a. m.
Tea Meeting from 6 till 8.
Display of Fireworks from 8 till 10, p. m.

SATURDAY, OCTOBER 9.

Exhibition open from 12, noon, till 8, p. m.
Presentation of Prizes for Essays.
Reading of Awards and Prizes at Exhibition.

By the permission of Lieut. Col. Freeman Murray, the Band and Pipers of the 72nd, or Duke of Albany's own Highlanders, will be in attendance.

PROGRAMME OF ROWING MATCHES.

Six-Oared Gigs.

Course—From Gaynor's Wharf to Short Ferry, and back to place of starting.

Entrance £1. First Prize, £7 10s. Second Prize, £2.
No second Prize unless 3 or more Gigs compete.

Four-Oared Gigs.

Course—From Gaynor's Wharf to Short Ferry and back.

Entrance, £1. First Prize, £4. Second Prize, £2.
No Second Prize unless 3 or more Gigs compete.

Four-Oared Gigs.

By Lads, under eighteen years of age.

Course—Same as above.

Entrance, 10s. First Prize, £3. Second Prize, £1.
No Second Prize, unless 3 or more Gigs compete.

N. B.—The names and ages of the lads are to be given in at the time of entering. No Prize to be awarded to a crew having a lad above the prescribed age.

Two-Oared Gigs.

Course—From Gaynor's Wharf to Pickard's Mills and back to the place of starting.

Entrance, 7s. 6d. First Prize, £2. Second Prize, £1.
No Second Prize unless 3 or more Skiffs compete.

Punt Race.

Course—Same as for Skiffs.

Entrance, 5s. First Prize, £2. Second Prize, £1.

No Second Prize unless 3 or more Punts compete.

Canoe Races.

Birch and Log Canoes. Course same as for Skiffs. No entrance fee. First Prize, £1. Second Prize, 10s. No Second Prize unless three or more Canoes compete.

Birch Canoes. Course same as above. Prizes and conditions same as for Birch and Log Canoes.

Birch Canoes. Each Canoe to be paddled by two Squaws.—Course, conditions and prizes, same as for other Canoes.

Sailing Match for Gigs, provided the Stewards consider the weather favorable.

Intending competitors must enter their boats by name, and describe the dress in which their crews are to appear, on or before the 25th September, 1852, when further details will be published. Address "The Chairman of the Committee of Sports, Fredericton."

PROGRAMME OF FIRE-WORKS.

(Under the direction of Mr. S. K. Foster, of St. John.)

SIGNAL ROCKETS.

1. Bengal Lights.
2. "Maid of the Mist," commencing with a revolving battery, and terminating with a discharge of serpents.
3. "A four-case Wheel." Rockets.
4. "Pine Tree," made of Roman Candles, filling the air with stars.
5. "Telegraph." Rockets.
6. "The Polka." Rockets.
7. "The Plough," in Silver Lance work.
8. "A six-case Wheel." Rockets.
9. "Telegraph revolving." Rockets.
10. "Chinese Fan," composed of Brilliants of heavy reports, mingling with the reflections of colored Flower Pots.
11. "Two Telegraphs," meeting at a central station.
12. "A four-case Wheel." Rockets.
13. "The Mechanic's Arm," shewing the uplifted arm, hammer, &c., enclosed with a wreath of green leaves in perfect imitation of nature.
14. "A six-case Wheel." Rockets.
15. "The Crown," in various colored fires of great beauty, and fired amidst a blaze of Roman Candles, filling the air with stars, concluded by a volley of Rockets.

The whole to be interspersed with a variety of pieces, such as Mines, Batteries, and other fancy articles.

RATES OF ADMISSION.

Tickets for a single entrance, for Adults, - -	£0	1	3
Ditto ditto ditto for Children under fourteen years, - - - -	0	0	7½
Ticket for the week, for an Exhibitor, - -	0	3	9
Ditto ditto for Children, - - -	0	2	6
Ditto ditto for all others, - - -	0	5	0
Family Ticket for the week, to pass Parents and their Children under age only, - - - -	0	10	0

The members of the Executive Committee were divided into various sub-committees, and as the non-resident members arrived in Fredericton, they were drafted into the general scheme.

To Mr. Kerr was given special charge of the arrangements connected with the reception of visitors.

Messrs. Gregory, Carman, and Fulton, had charge of the ticket and admission office.

Mr. Beckwith took charge of the entry books.

Mr. Carman directed the opening of the packages.

Mr. Watts took charge of the arrangements in the Grove.

Hon. A. E. Botsford, Dr. Robb, and Mr. Jardine, were a Committee for arranging and placing the articles in the Exhibition building.

On Friday the first day of October, a few goods began to arrive.

On Saturday, the building itself, the Province Hall, the Grove, and the New Market House were now nearly ready. Strangers began to arrive, and a great many packages of goods from all parts were already in the building.

On Monday the 4th of October, the Executive Committee met at 6 o'clock, p. m., and declared itself to be in permanent session for the week, within the Supreme Court Room.

The general superintendance and control of the whole was undertaken by His Honor the President.

Messrs. Jardine and Botsford, with the Corresponding Secretary, were appointed a Sub-Executive Committee; and sundry Juries were nominated for service.

The whole of Monday the 4th of October, was a day of unceasing bustle and business for the Committee and their numerous friends and assistants; but by their united energy, activity, and good will, the chaotic mass of materials was rapidly disposed of in groups and masses of picturesque form and colour, but wholly subordinate to the same rigorous and methodical classification which characterized the published premium list. By strict adherence to the same system, the instruction derivable from the Exhibition was greatly enhanced —in fact, without it the object of the Exhibition would have been

greatly lost. It was at first intended to classify the articles by their respective counties, but after a brief attempt, that system was abandoned, as scattering and breaking up too much the different and unequal contributions from their respective counties. Until the communications and means of transport throughout the Province are much more perfect than they are as yet, it will not be desirable to attempt again any classification by counties.

The pavilion or building erected for the Exhibition was deemed by all to be highly creditable to the talent, taste, and skill of the Architect.

In future, however, it would be well to have more office accommodation near the entrance—a door for exit as well as for entrance—and more convenience for inspecting and storing of boxes; these points forced themselves upon the notice of the Committee during the progress of the week.

The chief pavilion was connected with the portico of the Province building on the one side, and extended across the enclosure 20 feet into the front street, which had been granted for the purpose by the City Council. The handsome front of the building thus became a prominent object from the river, and served as a great attraction to the thousands who were continually arriving by the steamers from Saint John and elsewhere.

The pavilion consisted of a lofty nave with two lower side aisles. The sides were of board, the clerestory was of glass, and the roof was made of canvas.

The canvas was so arranged that hereafter, if it be deemed necessary, those portions which covered the aisles might be used for the walls, and those which formed the roof serve for the covering of one single canvas tent. The canvas was fashioned and sewed by Mr. Gardner, Sailmaker of St. John, and we are happy to say that there was no occasion to call in the aid of foreign tent makers, as we had at first supposed might be the case.

The length of the interior was 150 feet, the breadth 75, and the height of the ridge pole 35.

The front presented, beneath, a massive rusticated base; above this rose four Ionic columns, supporting an elaborate entablature, then a pedestal on which stood Britannia, 12 feet in height, supported by the Lion and Unicorn, and bearing a spear and shield standard; the height of the spear-point above the ground was about 65 feet.

The words AGRICULTURE, ARTS, SCIENCE, and COMMERCE, were emblazoned in large letters, two on each side of the principal entrance; within, the whole space was divided into 20 bays, 10 on each side, separated by gaily painted columns. The roof was supported by nine vaulted arches, whose lightness of structure and brilliancy of colouring proved extremely effective.

At each end of the building were spacious galleries, capable of accommodating about one hundred people apiece. The eastern one was styled the Ladies' Gallery, and the western one the Music Gallery. These galleries were supported by rusticated arches, and the upper entablature by caryatides or colossal figures of men and women, each nine feet high; the entablature of the western end bore the Royal Arms; the eastern one exhibited an agricultural trophy of sheaves of grain and agricultural implements.

The main avenue was bordered by fourteen pedestals on each side, supporting flowers, and near the entrance four young elms recalled the trees that graced the great Crystal Palace of the London Exhibition. Flowers and shrubs were also scattered abundantly throughout the area and galleries, and gave a charming effect to the whole.

Fifty or sixty flags floated lazily in the breeze above the roof, and reminded the beholders of the triumphs of Arts and Industry displayed within.

The chandeliers used for lighting the building represented huge winged dragons, cut in wood, and pointing respectively east, west, north, and south, with a brilliant flame of gas issuing from their mouths; below, heraldic gryphons liberally disseminated, served to light up the well loaded shelves to advantage. The whole was tastefully coloured and festooned, and presented a *coup d'œil* of brightness, cheerfulness, and harmony which satisfied the most fastidious, and worthily enshrined the rich and varied contributions of the people.

Within the Province Hall, the Supreme Court, the Law Library and the Judge's room, were occupied as Committee rooms. The House of Assembly was occupied with hats, furriery, cabinet work, fine sewed work, clocks and musical instruments. The Speaker's room was chiefly occupied with minerals, models, and philosophical instruments. The Legislative Council Chamber was used as a Picture gallery. The Committee room was crowded with carved and gilt work, while the Clerk's room was occupied with embroidery, Berlin work, crotchet work, and all the fanciful productions of the nimble fingers of the fair sex. The outer, or main building, was crowded to overflow with agricultural and horticultural produce, of every variety possible in this clime, and in all their manufactured forms, agricultural implements, tools, carriages, domestic manufactures, fish, cheese, butter, honey, leather, ropes, ships' furniture, paper—in short, it was such a display of substantial wealth as at once gratified the eye and satisfied the judgment of the many thousands, who in the course of the week came to see, wonder, and believe.

The contributions in all amounted to about four thousand, and the number of exhibitors to nearly one thousand.

It was originally intended to have had a Catalogue prepared for

the opening of the Exhibition, but owing to the lateness of the arrivals it was found impossible. The Prize List, which forms part of this Report, indicates a considerable variety of the articles which attracted attention, and although it is by no means to be regarded as comprehending a tithe of the articles entered for Exhibition, still, on the whole, the Executive Committee cannot recommend the publication of a full Catalogue now, so long after the thing is over.

With our inexperience in such great Industrial Festivals, it was found difficult to be prepared for the amount of business which was precipitated upon the Executive Committee, or to meet the continual calls upon their attention by the thronging crowd of exhibitors and visitors. Every member of the Committee was kept on the *qui vive* from morning till night, and had it not been for the liberal and hearty aid of the officers of Agricultural Societies, Mechanics' Institutes, Local Committees, and of energetic volunteers from all parts, the pressure of business would have overwhelmed the Committee: as it was, withal, sundry things and sundry persons may have been overlooked: bustle to a few may have sometimes seemed confusion, but, nevertheless, an infinite deal of work was got through, and was well and usefully got through, to the lasting good and benefit of the country.

By 12 o'clock, on Tuesday morning, the 5th day of October, almost everything was in its proper place; the Hall of the Exhibition was cleared, and the public procession took place.

This was headed by the Band and Pipers of the 72d Regiment; then came the Engines and Fire Companies of Fredericton, next the St. John Companies, with beautiful Engines, and then the Masonic fraternity. The Fire Companies wore, of course, their smart uniforms, and the Masonic brethren their official insignia and costume. The signal to start was given by the fire of a field piece cleverly handled by a corps of young amateur artillerymen, and the whole was under the direction of B. Wolhaupter, Esq., High Sheriff of York. After marching through the principal streets of the City, the dainty Engines were deposited in their proper quarters, and most of the gentlemen adjourned to a public luncheon given in the new Market House by the Firemen of Fredericton.

The doors of the Exhibition were opened to the public at half-past one, and at two o'clock His Excellency Sir E. W. Head, Bart., Lieutenant Governor of the Province and Patron of the Society, attended by a guard of honor of the 72d Highlanders, entered the building under a salute of nineteen guns. His Excellency and suite were received by the President and officers of the Society; chairs of state had been prepared for His Excellency and Lady Head, who, with a large party of officials and ladies, occupied the dais under the western gallery. The numerous avenues of the great hall were crowded with well dressed people; the eastern gallery was occupied

by the united choir of all the churches in this City, and in the western one was placed the full Band of the gallant 72d Highlanders.

The weather had been somewhat showery hitherto, but for the rest of the day the sun shone out most pleasantly. At this moment the instruments and voices together burst forth in the strains of the National Anthem, at the conclusion of which the Hundredth Psalm was sung with accompaniments in an admirable and most impressive manner.

His Honor Judge Street, the President of the Society, (attended by the Officers with their respective badges,) now addressed His Excellency as follows:—

"It has become my pleasing duty, your Excellency, as President of the New Brunswick Society and Chairman of the Executive Committee, to present to your Excellency this address I hold in my hand, and I can assure you, Sir, that I have seldom been called on to perform any public duty that has given me so much pleasure as the one I am now about to discharge, not only from the high respect and esteem I personally feel for your Excellency and Lady Head, but also from the warm interest you both have always taken in every measure that has had for its object the promotion of the public good. With your leave I will now read the address."

He then read the following address:—

"*To His Excellency* Sir Edmund Walker Head, *Bart., Lieutenant Governor and Commander-in-Chief of the Province of New Brunswick, &c. &c.*

"May it Please Your Excellency,—

"We, the Executive Committee of the New Brunswick Society, for the encouragement of Agriculture, Home Manufactures and Commerce, throughout the Province, on behalf of ourselves, and the Society generally, take this opportunity of offering to Your Excellency our sincere thanks for your patronage, influential encouragement, and substantial assistance, given to us at all times, when required since our Society was formed, and in particular for the kind readiness with which Your Excellency has complied with our request, to attend here in person, to open this our first Provincial Exhibition.

"By the Constitution of our Society, and by the Act of the General Assembly incorporating the same, we are authorised to hold Shows, Fairs, and such Exhibitions as may have for their object the carrying out or furthering the purposes for which this Society was originally organized; and although the first three years of its existence are now just passed, we have not, at an earlier period, been able to carry out this great and important part of the object of our constitution; yet, we are happy in being able to assure your Excellency that the Society has been rapidly advancing in usefulness in various other

ways, and we have reason to believe it is gaining the confidence of the public more and more every year, by the valuable information on the modern improvements in the sciences of Agriculture and Horticulture, it has already been the means (through its annual reports) of diffusing among all classes of the people, and, after this Exhibition, we confidently hope we shall be able to extend that information to various other subjects, forming other objects of our Institution.

"This Society, therefore, has not been idle during the three past years, but has been rather (by its exertions) preparing the way for this Exhibition, and in April, 1851, it was resolved that the Provincial Fair and Exhibition should be held in October, 1852, to carry out which, we were the more encouraged by the success that attended the one subsequently undertaken, by the President and Directors of the Mechanics' Institute of St. John.

"The subject was again taken into consideration by a general meeting of the members of the Society, called for that purpose in October last, when it was unanimously determined, that the attempt should be made about this period, so as to give a year's notice to the public to prepare for it; at every subsequent general meeting of the members, a very warm and unanimous approbation of the scheme was expressed, and great zeal displayed for carrying it out. It was next brought under the consideration of the Legislature, who also approved of it, and made a special grant from the public funds, towards providing for the expenses; the Executive Committee were fully empowered by the general Society to carry the plan into effect; and all the funds that could be raised for the object placed at their disposal. Every exertion has been used by us, to give and widely circulate, through all parts of the Province, the fullest information on the subject, and a constant succession of printed publications, has been kept up and extensively circulated in every direction, during the whole of the year past, showing our proceedings from time to time as they went on, with full notice of what was intended and required, in order to keep the public attention alive to the importance of preparing for it, and calling on them for subscriptions and contributions towards the expense; as it has been our great and leading anxiety that the Exhibition should be one that would do credit to the natural resources of the Province, and the energy and industry of the people.

"The amount raised by private subscription, having fallen far short of what we expected, we have not been able to do all we wished, and were obliged to make some alteration in our original plan.

"We trust, however, the building and general arrangements we have now made, with the aid of our able and clever architect, M. Stead, (considering the limited means at our command,) will meet with your Excellency's approval, and give general satisfaction to the public at

large, which will afford us the most acceptable return we could desire for our exertions in the cause.

"We are well aware that these Exhibitions may be generally considered as too expensive, to be holden very often, but we think your Excellency will agree with us in opinion, that to have them occasionally, say once in every three years, alternately in different counties in the Provinee, must be productive of very general public good, as offering the best means of developing the internal resources of the Province, calling forth and encouraging both natural and acquired talent, inventive genius, improvements in the science of Agriculture and Horticulture, and giving a spur to industry and energy generally among all classes of the people, by creating among them that generous spirit of rivalry for excellence, which is the surest road to success.

"These are the objects the Society has kept in view, and by which it has been governed in getting up this Exhibition; and with such prospects of advantage to be derived from it, we trust the expence incurred, will be generally considered well applied.

"The example set by our Mother Country, in the Great Exhibition of Industry for the whole world, proved eminently successful, and has led to the adoption of the same mode for the advancement of national talent and industry in other countries, and forms such a precedent, as we need not fear to follow, even upon the very diminutive scale (in proportion) which we now offer to the notice of your Excellency and this large assemblage of persons here present.

"We have only to add our sincere hope, that the warm interest, we know by experience, your Excellency and Lady Head always take in promoting the good of the people at large under your Government, may, in this case, be enhanced by seeing them here assembled around you, in a praiseworthy trial for superiority in the various branches of Science, Arts, and Industry, and in obtaining useful and amusing information from the collection of subjects here offered, as well as joining in the enjoyment of the lighter amusements we may be able to furnish during the week."

His Excellency replied as follows:—

"Gentlemen of the Executive Committee,

"I thank you for your address and for the reception which you have given me—you have exaggerated the assistance which I have been able to afford you. My absence in England during a portion of this year necessarily made me ignorant of much that was done. I have great pleasure in attending here on the present occasion and rejoice at your success. The building in which we stand is alike creditable to your taste and to the ability of your architect, Mr. Stead.

"When I arrived in this Province a little more than four years ago, I found all interests depressed; but there are two sorts of depres-

sion—that which makes a man despair, and that which stimulates him to fresh exertion.

"If we look to the past we have no reason to be discouraged. The time is not far removed when the greater part of the River St. John was traversed only by the Indian and the Beaver. The site of the City of Saint John itself was a wilderness within the memory of one or two persons now in this room. Now, happy homes and cultivated fields are seen on each side from St. John to the Grand Falls.

"If we look to the future, we may hope that the vast sea of forest which divides the Province into two parts, will be traversed by half a dozen roads, each bordered by thriving settlements. The progress of Upper Canada shows us what *can* be done—but all this must depend on your own exertions.

"These exertions will be materially aided by such Exhibitions and meetings as the present, which will be useful in three ways:—

"1st, By what they *do show*;

"2nd, By what they *do not* show;

"3rd, By the contact and intercourse which they produce.

"With regard to what they do show, we must not be disappointed at the small number of productions of the fine arts, or of ornamental manufacture; such things cannot be expected in abundance in a new country like this.

"There is no department of the Exhibition more important than that which relates to Agriculture. I am glad to see those Agricultural Implements; such a manufacture is important in all countries, but more especially in one where labour is scarce. Your first business in New Brunswick is to grow your own food.

"There is much to be learnt from what is *not* shown, because it is every man's business to consider how far it is advantageous or possible for him to supply some of those deficiences.

"But, nothing in such gatherings as the present is more important than the fact that men from all parts of the country are brought together. One of the faults of New Brunswick is the division which sometimes exist among you. I wish to see the day when the Cornish motto, "*one and all*," could be applied to you, and when every man shall lend his hand to that which benefits the whole Province, and not his own neighbourhood alone.

"Gentlemen of the Committee,

"In again thanking you for your reception of myself and Lady Head, I desire to repeat my hearty good wishes for the success of your endeavours. I know at what you have aimed, and I know that I am expressing your feelings as well as my own, when I say that I hope this Exhibition may be an epoch in the History of New Brunswick.

"I hope that your sons and grandsons may look back on the year 1852, as the year in which a fresh impulse was given to the industry and prosperity of the Province. I earnestly pray that as that prosperity grows and strengthens, the ties of loyalty and affection which bind you to Great Britain may grow and strengthen—that these colonies—Canada, Nova Scotia, Prince Edward Island and New Brunswick may be destined, under Providence, to show to the world what can be done by British industry and energy under British Institutions, as applied in North America."

At the conclusion of the Lieutenant Governor's Address, the President conducted His Excellency and Lady Head over the Exhibition, which was now declared to be formally opened.

The crowd during the first day was overpowering, and some idea of the numbers may be had from the fact that during the day the large sum of £250 was received for tickets of admission.

The effect of the sight of our Exhibition of agricultural produce is well described in the following extract from a recent lecture of our clever and amusing friend, W. Watts, Esq., which it may be well to reproduce :—

"John Bluenose stood amazed, surprised, confounded, in view of the crops of *his own farm* and garden—*thought at first it must be somebody else's*—and when the glad surprise settled at last into the more glorious conviction, that it was all the fruit of *Provincial* fertility and industry—John fired up with new courage, cocked his hat, gave a tug to his shirt collar, and went home with larger faith, vowing he'd make the next show better.

"But you must not suppose that Bluenose was led to this conviction by the evidence of his own eyes employed on these trophies of his own fields—that had been to bold by half for him. He had to wait till a gentleman who had just returned from the great Upper Canada Fair, then lately held at Toronto, had first declared that our farm produce was greatly superior to their's; till another traveller who had been present at many of the great Agricultural anniversaries in the United States had given the same testimony;—till Mr. Sykes, the English railway contractor, had endorsed a similar opinion, and an Ayrshire farmer, who had time and again seen the finest Agricultural shows in Scotland, repeated the same tale;—then, and not till then, the glad assurance settled down into the heart of Bluenose, that notwithstanding his little faith—his imperfect husbandry—his paucity of agricultural implements—his wastefulness in manures—his carelessness in drainage—his disregard of systematic cropping, indeed of all the appliances of scientific agriculture—the simple fertility of the soil, and his own unskilled industry, had enabled him to gather on those shelves, a show of field and garden productions, worthy to be

pitted against the best results of wealthy and systematic farming in the best agricultural districts of the old world or the new."

It was originally intended to have given only £250 of money prizes, but on attempting to apportion the sum among the many articles named in the Schedule issued by the Society in February last, it seemed to be entirely too small, and the Executive Committee at once determined to double the amount, trusting to the future for their being sustained in the operation.

Prizes act in three ways—they induce some to come forward who might not otherwise have exhibited at all; they stimulate industry and ingenuity; and lastly, they reward merit.

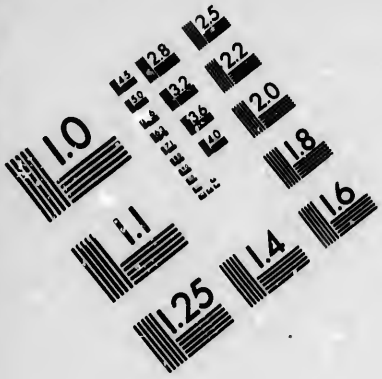
The Committee consider the honorary diploma of the Society to be much more valuable than the money prizes, and they know that the producers and manufacturers themselves, to whom it was awarded, look upon it in the same light, their holders being at once signalized as the first and best, in their respective branches, within the Province, but it may be some time before awards not of money can be dispensed with in this country; still, however, the effort ought to be made to substitute honorary awards for money, so as to develop a higher and better principle in connection with these Industrial Exhibitions. It may never be requisite to give so much again; although for the first time a large pecuniary inducement seemed to be necessary.

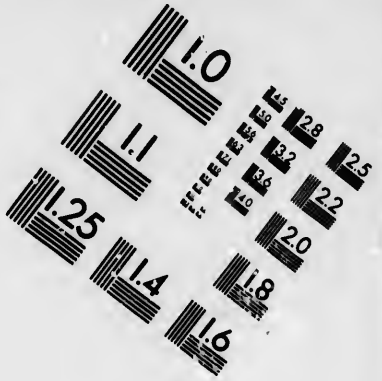
The Committee would refer with great pleasure to the mechanical execution of the diploma by Mr. Avery of St. John, which, as a piece of ornamental typography, has seldom been surpassed.

In the evening the crowd was as great as before, but perfectly orderly and good humoured, and every one seemed more than satisfied. The effect of the whole by gas light was eminently beautiful; rich and poor, old and young, all felt that the credit of the Province was safe. A glance at the dazzling spectacle instantly dispelled all doubts as to the capabilities of the soil of New Brunswick to bear all the proper products of a temperate clime, all doubts as to the capabilities of the mechanics of New Brunswick to vie in skill and ingenuity with any others in the world. The first and valuable result of our Exhibition is that *New Brunswick now has faith in itself.* Professor Johnston's report did as much as a *written* report could do toward that object, but the *sight* of the agricultural products contained in the Exhibition building gave evidence and "proof as strong as Holy Writ."

The great effort of the age, as has been well said, is *a seeking after facts and their relations;* we have now established the productiveness of our country as a very decided fact. Let us never again lose sight of it.

Wednesday was the day of the Cattle Show. The Grove was the





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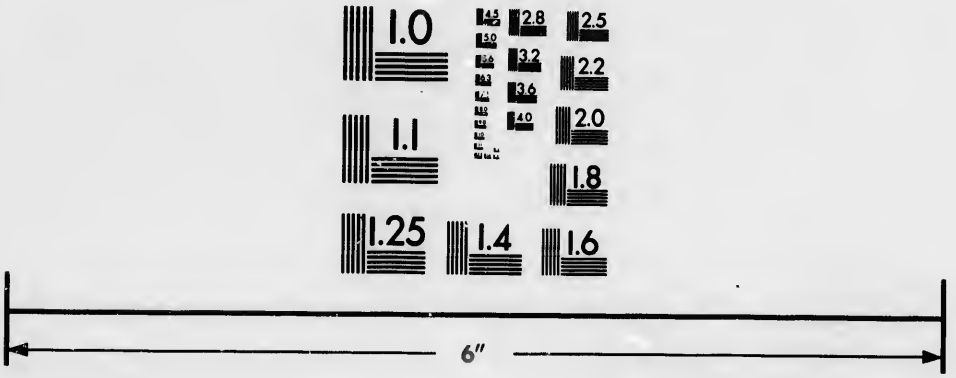

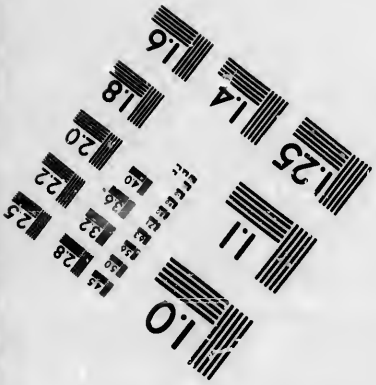

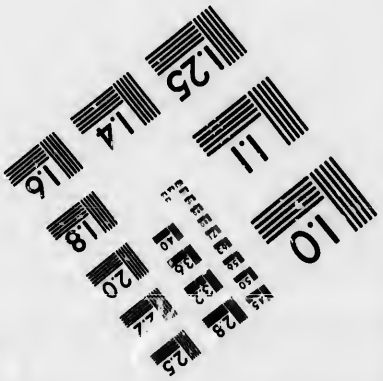

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site which had been fixed upon for the purpose. This piece of ground is about 12 acres in extent, beautifully situated in the rear of this City, and at the base of the upland. It is a fine old park studded with picturesque clumps of beech, maple, birch and hornbeam trees. On the day of the show, the sky was cloudless, the sun was warm, and the leaves were decked out in their gayest autumnal colours.

The arrangements in the grove had been chiefly managed by Mr. Watts, Sen. There were pickets for horses and cattle, and pens for sheep, pigs, and poultry. These were laid off in rows and groups so as to produce a pleasing effect. Across the main avenue in the line of pens, was erected a handsome arch decorated with flowers and evergreens. Water and hay for the stock were in abundance.

Early in the forenoon the stock was placed, that is, each kind of stock, and each different breed was put by itself; as far as possible, the principle of classification laid down in the premium list was literally adhered to. The advantages of classification in this department are even stronger than elsewhere.

The Juries thus worked easily and effectually.

The chief direction of the field was in the hands of Hon. W. Odell, assisted by members of the Executive Committee; but very much was due to the advice and assistance rendered by Mr. M. A. Cuming, an experienced Veterinary Surgeon, from Scotland, who had just arrived in the Province, and hastened to visit the Exhibition.

The number of animals exhibited was not very large, but there was a very considerable proportion of pure breeds among them. In each kind of stock improvements are going on, and, on the ground were bulls, cows, stallions, sheep and pigs, which would have attracted attention anywhere.

As Mr. Cuming is about to establish himself in the Province as a Veterinary Surgeon, it may be hoped that better practice and doctrines on the subject of the diseases of our domestic animals may prevail in future.

The show was well attended during the day, and after the business was over, most of the Judges dined together under the chairmanship of Mr. Odell. In the evening the officers of the Society attended the lecture by Judge Wilmot, in the New Market House. By eight o'clock the room was filled, and at the request of the Lecturer, Mr. S. K. Foster, of St. John, sang the "Song of the Great Exhibition." This was a beautiful and appropriate composition by Mr. Foster, to words by W. Watts, Esq. The song was composed, set to music, and printed in a marvellously short space of time, and the profits of the sale of it were generously handed over to the Exhibition fund. The following is a copy :—

"EXHIBITION SONG.

"We sing, oh! we love to sing,
The wealth of our own free land,
From sons of toil, and a fair fresh soil,
See the harvest on every hand!
From forge, from bench, from mine,
From river, and lake, and sea,
From the strong of arm, and the cunning hand,
These glorious guerdons be.

"Swart labour, bold and brown,
With health and with hope a-glow,
Our artizan, and our husbandman
Their peaceful trophies show;
From forge, from bench, from mine,
From river, and lake, and sea,
From the strong of arm, and the cunning hand,
These glorious guerdons be.

"The arts in a glad array,
The glories of woman's skill,—
Ho! good and fair in a union rare,
We hail them with right good will;
From loom, from lathe, from frame,
With spoils from the land and sea,
From the gentle taste and skilful hand,
These glorious guerdons be.

"We sing, we exult to sing,
The wealth of our own free land;
Ho! sons of toil, ho! our glad, free soil,
See your trophies on every hand;
God bless the bench and forge,
The mine and the generous sea,
The corn and fruit of the glorious land,
Whence all these treasures be!"

After the music, Judge Wilmot rose and spoke as follows:—

"LADIES AND GENTLEMEN,

"I fear the transition from music and song to the plain prose which I am to furnish as my portion this evening, will seem to you abrupt and unsatisfactory. You must expect no formal lecture from me. I never lectured in all my life, and cannot now attempt it for two sufficient reasons, first, I cannot write, and, because next, if I could, I

cannot read; and indeed, who would read and give his eyes to paper when they might enjoy the privilege of resting upon the more attractive faces of such an audience as I have now before me. You must be content then to accept from me a humble speech on the subject of our own good country.

"Now, to understand how good our country is, how fortunate its present position, I must invite you to a retrospect, not to the ancient trials and adversities of '83, but to the later difficulties which have been surmounted in the last ten years.

"In the lapse of ten short years our trade has been prostrated by the operation of a great commercial panic, which for a time seriously affected the value of our staple export, reduced the demand for labor within the Province, weighed down the hearts of our merchants, paralyzed the energies of our agriculturists, filled our courts and prisons, and compelled us to seek refuge in a system of general, not to say almost universal bankruptcy. Then our merchants and mechanics were driven to the forests, the laborer called in vain for employment, many a strong heart fainted, many a strong arm hung down, and to make the darkness deeper, our potato fields were blighted, and the protective duties of Britain which had assisted to sustain us, were withdrawn, the navigation laws repealed, and our whole Province, in town and country, were disheartened. Yet after all, and in spite of all, we have lived through these disasters and difficulties, and again God hath blest us with an abundant harvest, which is best of all. For we must ever bear in mind that while agriculture lies at the very foundation of national prosperity, the sunshine and showers which give success to agricultural labour come alone from God.

"Agriculture is entitled to the foremost place among all industrial employments in New Brunswick. Ancient and modern history have acknowledged it first in character and value. In every age it has been regarded as an honorable employment by the best and wisest of our race.

> "'In ancient times the sacred plough employ'd
> The Kings and awful fathers of mankind:
> And some, with whom compared your insect tribes
> Are but the beings of a summer's day,
> Have held the scales of Empire, ruled the storm
> Of mighty war; then, with unwearied hand,
> Disdaining little delicacies, seized
> The plough, and greatly independent lived.'

"But there are those who tell us ours is not an agricultural country, who refuse to believe in its agricultural capabilities, and who will not believe me when I produce statistics which are here before

me, and to which I invite examination and challenge contradiction, to establish that the value of agricultural labour in the year 1851 in this Province of New Brunswick equalled the enormous sum of £1,692,000, which, at six per cent., is the interest of £28,000,000. Yet astonishing and demonstrative as these facts are, there will still be unbelievers—men who will shut their eyes against the great array of witnesses gathered together in the Hall of the Exhibition, and showing a collection of agricultural productions which cannot be surpassed in any portion of the world.

"Is it any marvel that the world is ignorant of the resources of our country, when there are so many who are ignorant among ourselves? One good result of the labours of the New Brunswick Society will be to make us know and appreciate ourselves, and to make us justly known abroad. And it is high time the ignorance of our character and the character of our country was dispelled. Not long since, a person who married in this Province visited his friends in Britain, and when the subject of his colonial connexion was referred to, it was with the regret that 'he had not waited till his return, so that he could marry a white woman.' As another illustration of this ignorance, I may mention that an English gentleman, who fancied himself by no means deficient in intelligence, asked a Provincialist, who happened to be in England, 'how far it was from Halifax to Nova Scotia?' Again, a more painful, a more humiliating evidence of this prevailing ignorance is to be found in the book of geography, published by the National Society of Education, in the year 1849, in which it is coolly stated that the chief rivers of this Province are the St. John, the Shubenacadie, and Annapolis, and also adds that the chief employment of the people is in rolling logs dow the banks through the winter, and taking them to Halifax in the spring. Out upon such ignorance and misrepresentation! Why, we have lakes three hundred miles in the interior which would swallow three Nova Scotia rivers. But the worst is, we disparage our own resources. We did so at the World's Exhibition, when New Brunswick was represented by a lump of asphaltum, the figure of an Indian, and a bark canoe. This disparagement is as unjust as it is unpatriotic, for we may safely pit New Brunswick against any State in the Union for weight of wheat, bushel for bushel; and some of you will be surprised to learn that with all the boasted fertility of their grain-growing States, they only produce fifteen bushels per head in the United States, while we, unknown and dejected as we have been, are growing 12, and that while they grow but 5⅛ bushels of potatoes per head, we grow 14⅝. We are ready to enter the lists with them for fair competition, and leave to them to name both time and place.

"Then we can beat them easily in raising beef, for in grass, potatoes, turnips, and oats, we entirely outdo them both in quality and

quantity. With a free admission for Provincial beef in the United States' markets, our County of Westmorland would send them more beef before many years than would equal in value all our present exports.

"Now, if New Brunswick is not an agricultural country, where is one to be found? Some samples of our Gloucester wheat were sent, a few years since, to Britain, and so surprised the corn-brokers, that a sheaf had to be forwarded to satisfy them that the grains had not been picked. True it is our farmers have their difficulties—and other farmers in other countries have theirs—they are common to every employment and to every country—flies and rust injure wheat elsewhere as often as in New Brunswick, and the blight has destroyed other people's potatoes as well as ours. The immense importance of agricultural success to national prosperity is shewn in England by the anxiety with which every indication of fair or unfavorable weather is watched, not only by the agriculturist, but by the merchant and the statesman. One week of bad or good weather, at a critical season for the crops, will affect the markets of the world.

"There is no ground for discouragement or dissatisfaction with our country—there is no necessity for emigration from it. New Brunswick possesses a wealth in her potato fields superior to the gold fields of Australia, and our winters are infinitely better than their droughts. Much has been said about and against our winters—much that is exaggerated and untrue. Why, cold as they are, they are healthy—fertilize our soil—make us good and easy roads and bridges, and do us much good service. Who that knows New Brunswick would have a New Brunswick with no snow?

* * * * * * *

"Our farmers are improving, and they will improve. They will cultivate a smaller surface of land, and work it better and more advantageously: they are progressing with the intelligence and improved facilities of the age. We hail their improvement and prosperity with satisfaction, because it is identical with the improvement and prosperity of our country. Agriculture feeds us, and in part clothes us—it is the central pillar, which is the chief support of all Provincial enterprize and success.

"When we turn from Agriculture to Manufactures, we find that but one-fifth of the value is expended in Manufacturing labor that is given to Agriculture; or, in figures, a scale of £391,351. The gross value of Provincial labour in Agriculture, Manufactures, and Fisheries, in the year 1851, amounted to £2,692,920, equivalent, at six per cent., to a capital of £44,000,000.

"The New Brunswick Society, whose representative and organ I have the honor to be to-night, has made the improvement of our domestic manufactures an object only secondary to the paramount

interest of agriculture. Believing with Lord Bacon that the essentials of national prosperity are to be found—first, in fertile fields; secondly, in busy workshops; and, in a third essential to which I shall presently allude, the Society have spared no effort or encouragement to draw out the ingenuity of our home mechanics, and seduce them into new and valuable fields of labor. And nobly have the manufacturers of New Brunswick responded to this invocation! Their industry and ingenuity is attested on the tables and shelves of the Exhibition, which demonstrate to every fair and intelligent observer that there is nothing deficient in the skill of our mechanics. But they are exposed to a severe and prejudicial competition with those who supply the markets of the world, receive the orders of millions, and enjoy all the vast facilities of machinery—what we want is neither industry nor skill; we want *increased demand and larger markets for the products of our mechanical labour.* Many of the articles exhibited by our mechanics would have been received with favor at the World's Show; but I will not, as I ought not, attempt to discriminate at this time.

"Lord Bacon's third essential is, easy means of conveying men and commodities from one place to another. And here I must remind our friends from a distance that, honorable and satisfactory as the present Exhibition is on all hands acknowledged to be, it is by no means a just illustration of all the capabilities of New Brunswick; for, if we enjoyed the rapid and cheap modes of inter-communication familiar to our western visitors, this Show would be vastly larger—more varied and more creditable. But in this very matter there is land ahead. The glorious vision of the Portland Convention is about to receive its realization—the pathway of the world is to cross our country—men and commodities are to have easy way assigned them—the day of Railways, of rapid progress and development, is opening auspiciously before us. It is objected that in these remarks I am venturing too near the party ground of politics which, as a Judge, it is my duty to avoid? If so, I answer, it is a sort of politics which touches the dearest interests of my native land, and from which I will never be deterred. I would, indeed, I might enact the Judge to-night in this question of Railways! I am sure the intelligence and patriotism of such a jury as is now before me would neither cavil nor hesitate with the doctrine of my charge; and that, by common consent, we should find in favor of a Railroad. (Cheers).

"We have some old fashioned folks among us who have kept themselves out of reach of the light of the age, and don't know the good of Railroads: pity they couldn't go elsewhere and see, and save themselves from the contempt which belongs to an ignorance alike unfortunate and irrational. Why, I venture to prophecy that the very day which witnesses the completion of the Railway contract will see

the real estate of the Province increase in value at least fifty per cent! Yet there are those who have opposed, and will oppose, all Railroads that do not pass beside their door steps. Some of these people would remove the St. John river if they had their way; and many of them, certainly, if they had been been consulted, would have opposed its running where it does.

"Now, in the development of Railway enterprises, Engineers will be required. Where are they to be found? The schools of the Province do not furnish them—and even these, defective as they are, are not attended as they should be. It is a lamentable, a degrading fact, that there are 34,000 children between the ages of 6 and 16 years in New Brunswick who attend no school, and only 18,000 who do.

"It is unpardonable that any child should grow up in our country without the benefit of, at least, a common school education. It is the right of the child. It is the duty, not only of the parent, but of the people: the property of the country should educate the country. All are interested in the diffusion of that intelligence which conserves the peace and promotes the well being of society. The rich man is interested in proportion to his riches, and should contribute most to the maintenance of schools. Though God has given me no child of my own to educate, I feel concerned for the education of the children of those who do possess them. I feel concerned in what so intimately touches the best interests of our common country. I want to hear the tax collector for schools calling at my door. I want the children of the poor in the remote settlements to receive the advantages now almost confined to their more fortunate brethren and sisters of the towns. I know that full well God has practised no partiality in the distribution of that noblest of his gifts—the intellect; I know that in many a retired hamlet of our Province—amid many a painful scene of poverty and toil—there may be found young minds ardent and ingenious, and worthy of cultivation as the pampered children of our cities. It is greatly important to the advancement of the country that these should be instructed.

"'What constitutes a State?
Not high-raised battlement and laboured mound,
Thick wall and moated gate;
Not cities proud with spire and turret crowned;
Not bays and broad armed ports;
But men—high-minded men—
These constitute a State!'

"In this all important subject of public education, we have lately made a step in the right direction. Our Legislature has for many a year been liberal in its appropriations for this great object. Twenty

years ago we appropriated more money for the support of schools than was given for the same purpose in England. Still the bugbear of taxation is the resort of quack politicians, but I confidently trust the time is near us when the wisdom of our law makers will away with this delusion. Let our Legislature be as intelligent and firm as they are and have been liberal, and soon the light of knowledge will irradiate the darkest corners of our country.

"A false impression has been fostered among us to the effect that talent and education are misapplied or degraded when they are employed in industrial pursuits. If a youth of superior parts or accomplishments is discovered, it is at once suggested he must be a Lawyer, a Doctor, or a Parson. Yet agriculture and the arts afford the finest field for the exercise of genius and of cultivated intelligence. Some of our best and finest intellects are now engaged in farming our soil or prosecuting our manufactures. *We are amply, nobly, sufficient to ourselves in mind and in material production—all we need is education*—this we must have—and our success is sure. Need I refer you to the illustrious and encouraging example of the noble fruits of genius, education, and industry, in the story of Sir Joseph Paxton—the poor gardener's boy—the plodding labourer, toiling with mind and arm—becoming the architect of the magnificent Palace of the World's Industry—receiving the plaudits of his country and of all countries—earning and wearing the just honors of his sovereign, and becoming associated with the record of the most glorious and philanthropic enterprise of this glorious and philanthropic age?

"Though I dare enter into no detail respecting the articles exhibited, at this time, I must not omit to present the great aggregate—the Exhibition as a whole—as a most gratifying and conclusive evidence of the wisdom and success of the New Brunswick Society. I trust and believe that the effect of the comparisons now instituted between the produce of agricultural and manufacturing industry from the various sections of the Province, will be to excite a healthy and general competition—an ambition to grow more and make better, which will advance every important interest. I trust it will be regarded as I regard it, as a splendid illustration of the true dignity of labor, and of what constitutes the real wealth of a country. I trust it will at least give the death blow to that disparagement of the value and respectability of labour which has heretofore been too general among us. Let our young men know and remember that the labour of a country supports its wealth and power. It lies at the foundation of the greatness of Great Britain; her army with all its victories—her unconquerable navy—her widespread commerce—her diffusive missions of civilization and christianity—all, under God, rest upon the labor of those who toil in her fields and workshops. It is a noble ambition of patriotism to take part in thus sustaining all that is good—all that is

essential to the promotion of public prosperity: let our young men and our old men emulate this ambition, and all will yet be well."

Judge Wilmot was again and again honored in the delivery of this address by the most flattering and cordial expressions of approbation and delight from his audience.

At the close of the address, Mr. Foster sang "God Save the Queen," in which he was joined by a chorus of many voices; then three times three, and three more enthusiastic cheers, pronounced the loud and glad Amen of Wednesday.

Thursday the 7th, was warm, bright and beautiful as a day in June; this was fortunate, as much of the interest was in out-door work.

The Grove was the scene of the sports and manly games which had been promised by the Society: such amusements are rather rare in New Brunswick, whatever they may be in "Merrie England." The want of public holidays and a common rendezvous may perhaps conduce to this, or, perhaps the New Brunswickers prefer all work and no play. Nevertheless, the Society ventured upon the experiment.

The field was under the control of Lieut. Col. Hayne, A. D. C., assisted by the Hon. E. Botsford, as referee from the Executive Committee.

Nothing could have been more genial than the weather, or more picturesque than the chosen spot; crowds of visitors were coming and going all the while; the Pipers of the 72nd, in tartan and plumes, charmed the hearts of our many Scottish friends with the echoes of their fatherland, and never, it is believed, had these mountaineers seen better specimens of manly strength and agility in "their ain countrie." A full record of the various sports and games will be found in the report of the Committee, farther on.

Perhaps the spirit and vigor displayed by the various competitors may have been attributable to the presence of Lady Head and the fair daughters of New Brunswick, whose "bright eyes rained down influence."

The ploughing match was also of very general interest; while the young and gay amused themselves at the Grove, the quiet old folks wended their way to a field near Government House, belonging to the Hon. W. H. Odell, of Rookwood. The field was of a cohesive clay soil, and was well suited to show the ploughman's handiwork.

Fourteen ploughs from different parts of the Province were afield, and at the end of the day their workmanship elicited general admiration; in fact it was all good. Before starting, the odds were in favor of the Northumberland men, but at the close of the day, when the judges came upon the ground, the prizes fell to York and Saint

John. The Wilkie plough was decidedly the favorite, and was used by the three victors. This public and indisputable proof of the merits of the Wilkie plough was not one of the least valuable results of the Exhibition of 1852.

There were two competitors for the prize for ploughing with oxen; these stepped out handsomely, and were little behind the others, either in time or workmanship. Both ploughmen belonged to York County.

The advantages of good ploughing are so great and obvious that there can be no need in insisting upon them here; we conceive that there ought to be parochial, county, and Provincial ploughing matches annually—a good ploughman is not likely to be a slovenly farmer.

In the evening there was a grand Ball, under the patronage of Lady Head, where work and care were forgotten under the magnetic influence of beauty and music.

Notwithstanding the many out-door attractions, the Exhibition building was thronged with visitors the livelong day, and three or four steamboats were constantly plying, day and night, between St. John and Fredericton, filled with passengers on each trip.

Friday was showery in the forenoon, and wet in the afternoon, so much so that the Exhibition Fire-Works were unavoidably postponed until Saturday.

At the Regatta, the gig races were very fair, but not exactly such as we have seen in St. John harbour. The canoe races, however, were excellent.

As most of the pleasure-seekers were walking or driving along the river bank, the attendance at the Exhibition building was rather thin; nevertheless there never was a more busy day for the Committee, who had to occupy themselves in collecting and collating the various reports, in finding out from the entry books the names belonging to the numbers affixed to the articles returned as for diplomas, prizes, or honorable mention.

The juries had been selected with some difficulty; they were, as it were, pressed into the service; if they were not the best in the Province, they were the best that could be had; and manfully and faithfully they did their work, moving with pain and labor through the crowded hall to complete their responsible duties. The Executive Committee have the highest confidence in the good faith of all parties concerned, and much satisfaction in publishing the awards.

If possible, however, the judges hereafter should be chosen before the Exhibition, and specific instructions ought to be prepared for their use and guidance. Whatever errors, or inadvertencies, or omissions, may be observed in the present case, must be attributed to our inexperience.

Circumstances made it utterly impossible for the Committee themselves to take notes of, or even to examine a great part of the articles exhibited, and much that was worthy of notice may not have had even a meagre record in the list of awards; the public journals adverted to some of the things, and the reports of the juries refer to others, yet, under all the circumstances, and knowing that more ought to have been done, the Committee cannot venture now, of their own knowledge, to particularize the merits of such things as they chanced to observe, lest they should incur the charge of neglecting others equally worthy, which might have escaped their notice.

On Saturday the attendance was less crowded; but still the building was quite full, when, at 2 o'clock, His Excellency the Lieutenant Governor and Lady Head again came down and were received with nearly the same ceremonial as at the opening. Mr. Carman, on the part of the Executive Committee, declared the awards of the juries on the various subjects committed to them; the draft then read was somewhat imperfect, and has since been printed in an amended form, and is incorporated with this report.

The list of awards includes 45 diplomas, no less than 277 recommendations for prizes, and 169 cases of honorable mention. In addition to the lists of these in their regular order, we have appended sundry extracts from such of the reports themselves as offered matter of interest to the public; and furthermore, we have given extracts from letters received from exhibitors in illustration of their contributions.

The report on farm produce is perhaps the most satisfactory of the whole, as proving beyond all question the productiveness of our soil and climate. The statement might have been considered more satisfactory if in each case we could have subjoined the cost of production.

In connection with this report we may advert to the casual detection of a discrepancy in the bushel measures which had been intended to be used for the grain. This has been made the subject of special report by Professor Jack, of King's College; the detection and proof of this discrepancy is one of the many useful results of the Exhibition, and, we trust, may lead to a revision of our system of weights and measures by legislative authority. It may be well to add that the smaller, or Winchester bushel, was the one actually used by the jury.

His Excellency presented the several services of Plate to the Prize Essayists, and after the other awards had been declared, addressed a few words to the officers of the Society and to the public. His Excellency was pleased to express his gratification at the complete success of this Exhibition, and his sense of the taste and the great

exertions and unwearied assiduity of the Committee of Management. Repeated and enthusiastic cheers for the Queen, Sir Edmund, Lady Head, the Exhibition, &c., were then given, and His Excellency and suite departed.

On His Excellency and Lady Head retiring, his Honor the President stepped forward and addressed the assembled crowd as follows:—

"Ladies and Gentlemen,

"On behalf of the Executive Committee I think it right to say a few words to you before we part, and first, for the satisfaction of those who have been competitors on this occasion, we much wished to have read the Awards of the different Juries, along with the declaration of Prizes that has just been made, as Honorable Mention has been made therein of many articles, which, though they have not obtained prizes, are highly creditable to those who produced them, but the Awards were so numerous that it was found there would not be time enough to read them all, and we were obliged to confine ourselves to a mere declaration of the prizes; but the substance of all these Awards in which Honorable Mention is made of other articles than those to which prizes have been awarded will be hereafter published. I have to return the contributors the best thanks of the Executive Committee, for the praiseworthy spirit of competition they have shewn in coming forward so extensively with the productions of their respective industry, arts, and science, on this occasion notwithstanding the difficulties many have had to contend with in the want of means of transport from the distant parts of the Province; the result will, I trust, amply repay them for all the expense and trouble they have been at, in the credit and name they will gain by this public exhibition of their abilities and skill in their several branches of business, besides the development it has produced of internal resources that few, if any, were before aware we possessed. To those gentlemen who have kindly taken on themselves and discharged the important, and in many ways, difficult duties of jurors, I tender the sincere thanks of the Committee. The great pains they have taken to come at correct decisions in all cases, and the impartial manner in which they have discharged their arduous duties entitle them to the thanks of all concerned. I have also to return our best thanks to the different sub-committees, who kindly undertook and performed the different parts allotted to them in the general arrangements requisite to be made for carrying out our object, and particularly to those gentlemen from a distance, as well as residents in the town, for the ready manner in which they volunteered their services in the arrangement of the articles as they came in, in the different departments of the building, and for the able and expeditious manner in which this service was performed. Indeed, (owing to the lateness

of the hour when the great bulk of the contributions arrived) I don't know what we should have done without such assistance to have got everything in order previous to the time appointed for opening the Exhibition. I have also to express the high admiration as well as thanks of the Committee to the public at large, for the admirable, good, orderly, and quiet demeanor, shown by all classes of the people during the whole time the Exhibition has been open, for, notwithstanding the unusually large concourse of people that has assembled here daily, and the dense crowds we have sometimes had, there have been no transgressions of any moment committed by any one. A general and universal respect seems to have been shewn by all to the rules and regulations made by the Committee for the government of the whole, and an anxious desire to avoid any infringement thereof; and I will venture to say few instances can be adduced in any country where the same number of people of all classes, have been so promiscuously congregated together and surrounded with so many temptations and opportunities to transgress and pilfer, where such peaceable, orderly, honest, and good conduct has been displayed throughout; this in itself speaks volumes for the right minded feeling and good morals of the people at large in this Province. And now, Ladies and Gentlemen, I trust you will all agree in the remark just made by His Excellency, that this Exhibition has proved eminently successful, indeed I have reason to believe far more so than most people expected. I hope it is only a beginning of what is to follow, and that we shall have hereafter at fixed periods a regular succession of such Exhibitions. It has just been suggested to me that, before I conclude, I should allude to a subject that concerns us all, that is, the coming Exhibition in New York, where I trust this Province will be properly represented. We stood almost alone among the British Colonies unrepresented at the great London Exhibition, but I hope that will not be the case in the one to be held by our neighbors in the States, and that the Farmers, Mechanics, and Artists, who have done so much for this, will exert themselves in preparation to do equal credit to the Province in the one to be held in New York. Many of the articles exhibited here, particularly of the agricultural produce, would, I am convinced, take a high place in the competition there.

"I have only to add, that I trust you all have been pleased and gratified by the Show, and the arrangements that have been made, and that few, if any, will go away disappointed, in which case we shall not regret the pains and trouble we have taken to please you all."

During the afternoon of this the last day of the Exhibition, many of the things were removed or sold, and the night boats were crowded with passengers who were now hastening homewards.

The evening was warm, quiet, and dark—perfectly adapted for the grand display of Fireworks, which was managed with great *eclat* by Mr. Foster, of St. John. His pyrotechnic display far exceeded in beauty, variety, and mass of light and colour, any thing of the kind that had ever been seen in the Province.

Nothing could be more appropriate as a conclusion of the week's work, and the cheers of the assembled multitude testified their entire satisfaction with the whole.

On Monday, October 11, there was a full meeting of the Executive Committee, at which, on motion of the Corresponding Secretary, it resolved unanimously,

1st, That this Committee desire to record an expression of their earnest and heartfelt thankfulness to the Almighty Giver of all good, in that He has crowned this year with peace and plenty, and blessed so abundantly the labours of the Husbandman. They also desire to praise His Name for the fine and genial weather vouchsafed to us of late, whereby the exceeding richness of the earth, and the various products of the skill and industry of the people, (employed upon materials furnished by Him alone,) have been enabled to be brought together from far distant parts of the country, without injury, and exhibited to the best advantage, before the eyes of the whole people.

2nd, That the thanks of the Committee be, and hereby are, publicly tendered to His Excellency Sir E. W. Head, Bart., Lieut. Governor of New Brunswick, and to Lady Head, for the warm interest which they have taken in the Great Provincial Exhibition of 1852.

3rd, That the thanks of the Committee be, and hereby are publicly offered to Lieut. Colonel F. Murray, 72d Highlanders, for permitting the attendance of the admirable Band and Pipers of the Regiment, whereby the attractions of the Exhibition were so much enhanced.

4th, That the thanks of the Committee be, and hereby are publicly tendered to His Honor Judge Wilmot, for the eloquent and impressive Oration which he delivered at the desire of the Committee during the Exhibition week, and that he be requested to prepare a copy of the same for publication.

5th, That the thanks of the Committee be, and hereby are publicly offered to the Exhibitors at the recent Provincial Show and Fair, for their numerous and valuable contributions thereto, and which have excited such great and general satisfaction in regard to the resources, the skill, and the industry of the country.

6th, That the thanks of the Committee be, and hereby are publicly offered to the Gentlemen and Ladies who have acted as Judges, Committee men, Stewards, and Assistants, in connection with the Exhibition, and who have so faithfully performed the arduous and important duties devolving upon them.

7th, That the thanks of the Committee be, and hereby are publicly offered to the Messrs. Odell for the liberal and generous spirit evinced by them in throwing open their beautiful Grove and Grounds for the Sports, Cattle Show, and Ploughing Match.

8th, That the thanks of the Committee be, and hereby are publicly tendered to the numerous Musical Amateurs who assisted at the opening of the Exhibition, and likewise to William Watts, Jr., Esq., and to S. K. Foster, Esq., for the Words and Music of the "Exhibition Song."

9th, That the thanks of the Committee be, and hereby are publicly tendered to S. K. Foster, Esq., of St. John, for the care and labour which he bestowed on the superintendance of the Fire Works during the Exhibition week.

10th, That the thanks of the Committee be, and hereby are tendered to the Presidents and Officers of the various County Agricultural Societies—to the Chancellor and Council of King's College —and to the President and Directors of the Mechanics' Institute and gentlemen of St. John, and other places, for their valuable contributions, and for the services rendered under their direction in preparing for and assisting at the arrangements for the Provincial Exhibition.

11th, That the thanks of the Committee be, and hereby are publicly tendered to the President and Directors of the Fredericton and St. John Electric Telegraph Company, for the gratuitous use of their line for the purposes of the Exhibition.

12th, That the thanks of the Committee be, and hereby are publicly tendered to the Proprietors of Steamboats and other public conveyances, for the conveniences which they have afforded to contributors and exhibitors.

13th, That the thanks of this Committee be, and hereby are publicly offered to the Gentlemen of the Provincial Press, for the very favorable mention which they have been pleased to make of the Exhibition, and for many gratuitous favors rendered by them.

14th, That this Committee desire to express their gratification at the good conduct and right feeling displayed by all classes of the people during the Exhibition week.

15th, That the foregoing Resolutions be printed in the *Head Quarters* of Wednesday next, and that all the other Newspapers of the Province be, and hereby are requested to copy the same.

16th, That the Lists, Entries, Awards, Reports and Addresses, in connection with the recent Exhibition be copied, collated, and prepared for publication in pamphlet form as soon as possible.

In the course of the same day there was an auction sale of many of the remaining articles, and soon afterwards the Exhibition building was despoiled of all its treasures and adornments.

As the Legislature was to meet immediately in Special Session, the building was allowed to remain until the public business was brought to a close.

Soon after the prorogation, the materials of the building, with the exception of the canvas, were sold at public auction, and the whole was removed before the winter set in.

Although the receipts from the sale of the building were not very great, it is satisfactory to know that the funds at the disposal of the Society have been amply sufficient for all the expenses of the Exhibition year.

After the many eloquent and practical addresses given in the course of this report of proceedings in connection with the Exhibition, it will be unnecessary now to dwell upon the many advantages derivable from it, or from others to be held hereafter in New Brunswick. The Committee can now look back with pleasure to the time of the first development of the idea, although it was one of great doubt and anxiety—to the period of its progress and preparation, although it was one of care and toil—to the epoch of its full consummation and reality, which was one of thankfulness and triumph.

During the short Session just alluded to, Bills closing and confirming contracts, provisionally made with great English capitalists for a Railway or Railways throughout the Province, were all but unanimously passed by the Houses of Legislature. Let us hope that the year 1852—the Railway year, and the Exhibition year—may prove what it was designed to be—an era in the history of New Brunswick!

Submitted on behalf of the Executive Committe.

J. ROBB, *Secretary*.

PROVINCIAL EXHIBITION.

List of Juries.

On Prize Essays.

Dr. Robb, J. A. Beckwith, J. Gregory.

On Diplomas.

Dr. Robb, R. Jardine, A. E. Botsford, R. Fulton, W. Carman.

On Raw Materials from Mineral Kingdom.

Dr. Robb, Dr. Toldervy, Professor Jack, Dr. Paterson, Otis Small.

On Grinding and Polishing Materials.

Otis Small, Dr. Toldervy, William Morgan.

On Bricks.

Dr. Fletcher, R. Foulis, James Beatty, M. T. C. Andrews.

On Machinery and Engines.

Dr. Toldervy, Dr. Fletcher, Otis Small, William Morgan.

On Stoves, Edge Tools, Brass, Tin and Copper Work, and Agricultural Implements.

Alex. Goodfellow, T. R. Robertson, Thos. Stewart, Robert Foulis.

On Carriages and Vehicles of all kinds.

Rev. C. Churchill, Thos. Allan, John Wright, Dr. Fletcher.

On Wood and Implements chiefly of Wood.

James Brown, John J. Munro, Robt. Stevenson.

On Cabinet Makers' Work.

Otis Small, Dr. Toldervy, Dr. Fletcher, William Morgan.

On Musical Instruments.

Chief Justice Carter, Dr. Fletcher, Dr. Toldervy, George Roberts.

On Fine Arts.

C. Wardlaw, D. L. Robinson, J. Wilkinson, M. B. Desbrisay.

On Clocks and Watches.

Professor Jack, Dr. Toldervy, Dr. Fletcher, J. Wilkinson, James Robertson.

On Astronomical, Surveying, and Electrical Instruments.

W. B. Jack, M. R. Fletcher, James Paterson, J. Robb.

On Philosophical Machines and Models.

J. B. Toldervy, J. Robb, W. B. Jack, M. R. Fletcher, James Beatty.

On an Improved Truss.

Dr. G. P. Peters, Dr. M. H. Peters, Dr. Toldervy, Dr. Odell, Dr. Robb.

On Ornamental Guilding.

J. B. Toldervy, W. H. Odell, W. B. Jack.

On Garden and Farm Produce.

A. Jardine, M. T. C. Andrews, R. S. Armstrong, W. Pyewell, P. Mitchell, Peter S. Cox, Alex. Jessamine, Isaac Burpe.

On Green House Plants.

William Watts, Senr., Geo. E. Snider, Thos. G. Allan.

On Fruits.

Dr. Fletcher, M. T. C. Andrews, Geo. A. Perley.

On Grain Manufactures.

A. M'Killigan, G. A. Perley, G. E. Snider, Robt. Lormer.

On Butter, Cheese, Sugar and Honey.

Thomas Davidson, William Reed, S. F. Black.

On Domestic Manufactures.

John Thomas, Alexander Goodfellow, G. E. Snider, Alexander T. Paul, John M'Donald, Abner Bull.

On Millinery, Embroidery and Needle Work.

Mrs. Parker, Mrs. R. D. Wilmot, Miss Churchill.

On Hats, Furs, Tailors' Work, &c.

J. S. Conner, Martin Lemont, S. D. Macpherson, Thomas Essington.

On Leather, and Leather Manufactures.

R. Sutherland, W. F. Jones, S. Whittekir, John Little.

On Soap, Candles, Bread and Confectionary.

Joseph Gaynor, William T. Baird, Thomas Davidson.

On Salt Meats and Fish.

Thomas Davidson, G. E. Snider, John Little.

On Horses.

M. A. Cuming, Rowland Crocker, Thos. T. Smith.

On Cattle, (Distinct Breeds.)

A. Barberie, Dr. Black, Dr. Peters.

On Cattle, (Mixed Breeds.)

Hon. J. Brown, Jas. K. Trenholm, Hon. Wm. Harrison.

On Sheep.

A. C. Evanson, Hon. T. Gilbert, C. L. Hatheway.

On Swine.

W. H. Stockton, Carleton Peters, T. R. Barker.

On Poultry.

Geo. A. Perley, Stephen Burpe, R. S. Armstrong.

On Ploughing.

Hon. J. Brown, Robt. Keltie, Robt. Gray.

On Articles overlooked or non-enumerated.

R. Jardine, H. E. Dibblee, Dr. Fletcher, M. Stead, James Beatty, C. E., M. Desbrisay, Dr. Toldervy, M. T. C. Andrews, M. Lemont, Rev. C. Churchill, Prof. Jack, Hon. A. E. Botsford, Dr. Paterson, Dr. Robb, Robt. Stevenson, Judge Wilmot, Otis Small.

SUMMARY OF AWARDS.

Prizes for Essays.

On Farm Management.	1st.—G. P. Peters, M. D.	Saint John,	Tea Service with Inscription.
	2d.—R. Jardine, Esquire,	ditto,	ditto, ditto.
On Orchards.	Mr. W. Watts, Sen.	York,	A Fruit Basket.
On Turnip Culture.	J. G. G. Layton, Esq.,	Westmorland,	A Silver Cup.
On Agriculture and Horticulture.	C. L. Hatheway, Esq.,	Sunbury,	A Fruit Basket.

Honorary Diplomas.

Lady Head,		Water Color Paintings.
J. & G. Lawrence,	Saint John,	Cabinet Work.
Kennay & Scribner,	do.	The manufacture of Pianos.
Lockhart & Company,	do.	Furriery.
Harris & Allan,	do.	Manufactures in Iron and Wood.
E. & J. W. Broad,	do.	The manufacture of Edge Tools.
S. Spiller,	do.	do. do.
J. E. Edwards,	do.	do. do.
Wallace & Small,	do.	Brass Castings.
William Hayward,	do.	Brass and Composition Castings.
J. & R. Jarvis,	do.	The manufacture of Ropes and Cordage.
Alex. Richardson,	do.	The manufacture of Saws.
Philps Brothers,	do.	The manufacture of Paper.
Vulcan Foundry Company,	do.	The manufacture of Grates and Stoves.
W. H. Hallet,	do.	Carriage building.

Potter & Company,	Saint John,	Ornamental Gilding.
Andrew Scott,	do.	The manufacture of Soap and Candles.
S. Gasking,	do.	Wood Engraving.
R. A. M'Kim,	do.	Carving in Stone.
Matthew Stead,	do.	Architecture.
W. L. Avery,	do.	Typography.
S. K. Foster,	do.	The manufacture of Boots and Shoes.
John Sime,	do.	The manufacture of Trunks.
Jeremiah Harrison,	do.	Carriage building.
Dr. Hatheway,	do.	Manufacture of Artificial Teeth.
H. B. Crosbie,	do.	Manufacture of Bricks.
J. H. Venning,	do.	Engraving.
John Gaynor,	do.	The manufacture of Blocks, Wheels and Capstans.
E. Drury,	do.	Construction of Planes.
Robert Gray,	York,	The breeding of Cattle.
J. B. Toldervy, M.D.,	do.	The design and manufacture of Electric Clocks.
Mrs. Benjamin Jewett,	do.	Grass-plait manufacture.
John M'Causland,	do.	The manutacture of Astronomical Clocks.
James White,	do.	do. do. do.
Isaac Naish,	do.	The manufacture of Organs.
John Maloney,	do.	The design and manufacture of Hose Carriages.
F. P. Sharp,	Carleton,	Bee Culture.
E. W. Payson,	do.	The manufacture of Wagons.
Elizabeth Burpe,	Sunbury,	Berlin Wool Work.
Joseph Windsor,	Restigouche,	Preserved Salmon.
Dr. Fletcher,	Charlotte,	The design of a Truss.

B. Randall,	Charlotte,	Manufacture of Lime.
Roderick M'Kenzie,	Northumberland,	Design of Agricultural Implements.
Miss Elmina Letson,	do.	Fancy Wool Work.

J. Fletcher,	Charlotte,	The design of a Truss.

B. Randall,	Charlotte,	Manufacture of Lime.
Roderick M'Kenzie,	Northumberland,	Design of Agricultural Implements.
Miss Elmina Letson,	do.	Fancy Wool Work.
W. J. Fraser,	do.	Preserved Lobsters.
D. & J. M'Lachlan,	do.	Manufacture of Tobacco.

Premiums.

CLASS I.—MINERAL KINGDOM.—SECTION A.—*Raw Materials, &c.*

Ores of the Metals, best,	Robert Foulis,	Saint John,	£5	0 0
Do. 2nd best,	David Munro,	Carleton,	2	0 0
Mineral Paints, best,	James Watt,	Northumberland,	2	0 0
Combustible Materials, best,	Robert Foulis,	Saint John,	4	0 0
Ditto 2nd best,	Rev. N. A. Coster,	Queen's,	2	0 0
Grindstones, best,	Harris & Allan,	Saint John,	2	0 0
Clays, Sands, &c., best,	James Davidson,	Saint John,	4	0 0
Ditto, do. 2nd best,	James Provan,	Queen's,	2	0 0
Mineral Manures, best,	A. Barberie,	Restigouche,	1	0 0
Building Stones, best,	P. Cormack,	Saint John,	4	0 0
Ditto 2nd best,	R. Payne,	Saint John,	2	0 0
Slate, best,	A. Bennet,	Albert,	1	0 0
Minerals, best assortment,	J. Robertson,	Albert,	3	0 0
Salt, best,	Jo. Brand,	King's,	1	0 0
Potash, best,	G. L. Raymond,	Carleton,	1	0 0
Lime, best,	B. Randall,	Charlotte,	1	0 0
Bricks, best,	H. B. Crosbie,	Saint John,	1	0 0
Ditto 2nd best,	Edward Simonds,	York,	0	10 0

Honorable mention is furthermore made of—

Four jars of Mineral Paints,	J. Ross,	Truro, N. S.
Grindstone, (fitted)	Jardine & Co.,	Saint John.
Ditto	W. Southwood,	Gloucester.
Ditto	J. Steadman,	Albert.
A fine Hone from Dalhousie,	Dr. Robb,	York.
A slab White Gypsum,	J. Lewis,	Albert.
A mass of "Asphaltic Coal,"	Wm. Cairns,	Do.
Mastic Cement, Naptha, &c. from Rocks, Albert,	Dr. Gesner,	Halifax, N. S.
Blue Mineral Paint from Madawaska,	Wm. Maclauchlan,	Victoria.
Two specimens Plaister from Tobique,	Agricultural Society,	Carleton.
Samples Coal, &c.,	D. Palmer,	Queen's.
Polished Jaspers from Tobique,	H. E. Sir E. Head, Bart.,	York.
Metallic Ores,	A. J. Wetmore,	Charlotte.
Minerals, assortment,	Jeseph S. Reed,	Albert.

CLASS I.—Section B.—*Manufactures, chiefly in Metal.*

Stoves, best,	Harris & Allan,	Saint John,	£4 0 0
Ditto, 2nd best,	Vulcan Foundry Co. (Craig)	Do.	3 0 0
Plough, best,	Wm. Smith,	Do.	2 0 0
Ditto, 2nd best,	George Todd,	York,	2 0 0
Drill-harrow, best,	Wm. Smith,	Saint John,	1 10 0
Potato-digger, best	Wm. Watts, Senr.,	York,	1 10 0
Potato Forks, best,	P. F'Farlane,	Do.	1 10 0
Hoes, best,	Ditto	Do.	1 0 0

Manure Forks, best,	E. & J. W. Broad,	Saint John,	£1 0 0
Hay Forks, best,	T. G. Allan & Co.	York,	1 0 0
Ditto, 2nd best,	E. & J. W. Broad,	Saint John,	0 10 0

Hoes, best, - - - -	P. F'Farlane,	Do.	1	10	0
	Ditto	Do.	1	0	0

Manure Forks, best, - - -	E. & J. W. Broad,	Saint John,	£1	0	0
Hay Forks, best, - - - -	T. G. Allan & Co.	York,	1	0	0
Ditto, 2nd best, - - -	E. & J. W. Broad,	Saint John,	0	10	0
Axes, narrow, best, - - - -	Ditto	Ditto,	1	0	0
Ditto, 2nd best, - - -	J. E. Edwards,	Ditto,	0	10	0
Ditto, broad, best, - - - -	E. & J. W. Broad,	Ditto,	1	0	0
Ditto, 2nd best, - - -	S. Spiller,	Ditto,	0	10	0
Planes, best, - - - -	E. Drury,	Ditto,	1	0	0
Hammers and Edge Tools, best, - -	E. & J. W. Broad,	Ditto,	4	0	0
Ditto, 2nd best, - -	S. Spiller,	Ditto,	2	0	0
Saws, best, - - - -	Alex. Richardson,	Ditto,	1	0	0
Improved Plane, - - - -	John Blair, Jr.	York,	0	10	0
Fire Arms, best, - - - -	P. Schleyer,	Ditto,	1	10	0
Dentistry, best, - - - -	Dr. Hatheway,	Saint John,	1	10	0
Clocks, best, - - - -	John M'Causland,	York,	3	0	0
Astronomical Telescope, - - -	J. B. Toldervy, M. D.,	Ditto,	2	0	0
Electric Clocks, - - - -	Ditto,	Ditto,	2	0	0
Hose Cart for Fire Engine, - - -	J. Maloney,	Ditto,	5	0	0
Garden Engine, best, - - -	Jardine & Co.,	Saint John,	2	0	0
Silversmith work, best, - - -	J. Barry,	Ditto,	2	0	0
Copper and Tin Smith's work, best, - -	E. Stevens,	Ditto,	2	0	0
Horse Shoes, best, - - - -	J. Donovan,	York,	1	0	0
Brass Castings, best, - - -	Wallace & Small,	Saint John,	1	10	0

Honorable mention made of the following—

Fire Engine, - - - -	Portland Company,	Saint John.
Grates and Mantel Pieces, - -	George Craig,	ditto.
Lock, - - - - -	G. P. Thomas,	ditto.
Astronomical Clock, - - -	James White,	York.
Fire Engine, - - - -	A. Bradley,	Saint John.
Brass Castings, - - - -	W. Hayward,	ditto.
Composition Spikes, - - -	ditto,	ditto.
Gas Pillars with Brackets and Burners, -	Wallace & Small,	ditto.
Two Ships' Binnacle Bells, - -	ditto,	ditto.
Sickles, - - - - -	Michael Dunn,	ditto.
Cooking Stove and Franklin, - -	R. Hay,	Carleton.

CLASS II.—VEGETABLE KINGDOM.—Section A.—*Raw Materials.*

Cranberries, best, - - -	J. W. Saunders,	York,	£0 10 0
Wheat, best, (68½ lbs.) - -	James Henry,	do.	2 0 0
Wheat, 2nd best, (67 lbs.) - -	Joel Everitt,	do.	1 10 0
Ditto 3rd best, (67 lbs.) - -	Thomas Pringle,	do.	1 0 0
Ditto (Winter,) - - -	H. E. Dibblee,	Carleton.	1 0 0
Oats, best, (53 lbs.) - - -	Dow Brooks,	York.	2 0 0
Ditto, 2nd best, (52 lbs.) - -	James Cunningham,	Saint John,	1 10 0
Ditto, 3rd best, (51 lbs.) - -	John Johnston,	York,	1 0 0
Barley, (Chevalier,) best, - -	John Wyse,	Northumberland,	1 0 0
Ditto, do. 2nd best, - -	William Brait,	Kent,	0 10 0
Ditto, (Common) best, - - -	Thomas Jones,	York,	1 0 0

Barley, (Common,) 2nd best, - -	Robert Keltie,	Saint John,	£0 10 0
Rye, do. best, - - -	James Henry,	York,	1 0 0
Buckwheat, (Rough,) best, (56 lbs.) -	Thomas Douglas,	do.	1 0 0

Ditto, 2nd best,	-	-	William Brait,	Kent,	0 10 0
Ditto, (Common) best,	-	-	Thomas Jones,	York,	1 0 0

Barley, (Common,) 2nd best,	-	-	Robert Keltie,	Saint John,	£0 10 0
Rye, do. best,	-	-	James Henry,	York,	1 0 0
Buckwheat, (Rough,) best, (56 lbs.)		-	Thomas Douglas,	do.	1 0 0
Ditto, (Smooth,) best, (60 lbs.)		-	James Cunningham,	Saint John,	1 10 0
Indian Corn, best, (65 lbs.)	-	-	Isaac Murray,	York,	3 0 0
Ditto, 2nd best, (64 lbs.)		-	Dow Brooks,	do.	1 10 0
Peas, best,	- - -	-	Richard Sands,	Saint John,	1 10 0
Beans, best,	- - -	-	H. P. Bridges,	Sunbury,	1 10 0
Timothy Seed, best,	- -	-	Isaac Burpe,	do.	1 0 0
Flax Seed and Fibre, best,	-	-	James Henry,	York,	1 0 0
Hemp Seed and Fibre, best,	-	-	Nathaniel Rideout,	do.	1 0 0
Millet Seed, best,	- -	-	Isaac Murray,	do.	0 10 0
Turnip Seed, (Swedes,) best,	-	-	Michael Searle,	Northumberland,	1 0 0
Carrot Seed, best,	- -	-	John M'Cafferty,	York,	1 0 0
Mangold Wurtzel Seed, best,	-	-	Colonel Miles,	Sunbury,	1 0 0
Blood Beet Seed, best,		-	John M'Cafferty,	York,	1 0 0
Potatoes, best,	- -	-	John Harper,	Carleton,	1 0 0
Ditto 2nd best,	- -	-	Isaac Murray,	York,	0 10 0
Turnips, (Swedes,) best,		-	Thomas Barker,	do.	1 0 0
Mangold Wurtzel, best,		-	James Harrison,	Sunbury,	1 0 0
Carrots, Red, best,	- -	-	William Decantilon,	York,	0 10 0
Ditto, White, best,	- -	-	George Leek,	do.	0 10 0
Farm Produce, greatest variety,		-	H. P. Bridges,	Sunbury,	3 0 0
Ditto, 2nd do.		-	Charles Carson,	Charlotte,	2 0 0
Apples, best assortment of named varieties,			F. P. Sharp,	Carleton,	2 0 0
Pears, best,	- - -	-	Isaac Murray,	York,	0 10 0

Squash (132 lbs.) and Pumpkins, best, -	Judge Wilmot,	York.	£0	10 0
Parsnips, best, - - -	J. Berry, Government House,	do.	0	10 0
Onions, best, - - - -	J. Berry, Government House,	do.	0	10 0
Celery, best, - - - -	George E. Snider,	Saint John,	0	10 0
Salsify, best, - - - -	J. Berry, Government House,	York,	0	10 0
Cabbages, best, - - - -	Edward White,	Saint John,	0	10 0
Pickles, best, - - - -	Mrs. W. Watts, Senr.,	York,	0	10 0
Preserves, best, - - - -	Mrs. W. Watts, Senr.,	do.	0	10 0
Garden Produce, best, - - -	Judge Wilmot,	do.	4	0 0
Greenhouse Plants, best, - -	John Harris,	Saint John,	1	0 0

Honorable mention made of

Apples, - - - -	Wm. Watts, Senr.,	York.
Ditto, - - - -	S. Babbit,	do.
Ditto, - - - -	Isaac Lawrence,	do.
Ditto, - - - -	Isaac Murray,	do.
Ditto, - - - -	R. Hallet,	do.
Ditto, - - - -	George Cougle,	King's.
Ditto, - - - -	Hon. R. D. Wilmot,	Sunbury.
Plums, - - - -	Judge Street,	York.
Farm Produce, variety of, - -	Isaac Murray,	do.
Wheat, (Guinea,) - - -	George Morrow,	Sunbury.
House Plants, - - - -	Mrs. Ryan,	York.
Ditto, - - - -	W. Decantilon,	do.
Ditto, - - - -	Mrs. Parker,	do.
Ditto, - - - -	Mrs. Shore,	do.

Mangold Wurtzel, - -	Col. Miles,	Sunbury.
Ditto, - - - -	J. M'Cafferty,	York,
Ditto, - - - -	J. A. Maclauchlan,	Do.

Ditto,	Mrs. Parker,	do.	
Ditto,	Mrs. Shore,	do.	

Mangold Wurtzel,	Col. Miles,	Sunbury.		
Ditto,	J. M'Cafferty,	York,		
Ditto,	J. A. Maclauchlan,	Do.		
Ditto,	Isaac Murray,	Do.		
Carrots,	James Foshay,	Do.		
Ditto,	C. Carson,	Charlotte.		
Sugar Beets, } Omitted in proper place,	do.	do.	£0 10	0
Hops, }	do.	do.	0 10	0

CLASS II.—Section B.—*Manufactures chiefly in Wood.*

Plough, best,	Alex. Jessamine,	Northumberland,	£2	0 0
Harrow,	do.	do.	1	0 0
Cultivator,	Harris & Allan,	Saint John,	1	10 0
Horse Power,	do.	do.	3	0 0
Fanning Mill,	do.	do.	1	10 0
Thrashing Mill,	do.	do.	2	0 0
Grain Drill,	do.	do.	1	10 0
Chaff Cutter,	do.	do.	1	0 0
Corn Sheller,	W. T. Baird,	Carleton,	1	0 0
Horse Rake,	R. H. Carman,	York,	1	0 0
Hand Rakes, best,	John Vanwart,	Queen's	0	10 0
Cheese Press, best,	Roderick M'Kenzie,	Northumberland,	1	0 0
Churn and Butter Worker, best,	Asa Willard,	Saint John,	2	0 0
Ditto, 2nd best,	Harris & Allan,	do.	1	0 0
Scythe Sneaths,	Roderick M'Kenzie,	Northumberland,	0	10 0
Agricultural Implements, best,	Harris & Allan,	Saint John,	4	0 0

Shingles, best,	John Harris,	Saint John,	£0 10 0
Bee Hive,	E. H. Wilmot,	York.	1 0 0
Table, best,	C. Humphreys,	Saint John,	2 10 0
Chairs, best,	do.	do.	2 10 0
Couch and Sideboard,	J. & G. Lawrence,	do.	3 0 0
Picture Frames, best,	Potter & Co.,	do.	2 0 0
Shoe Lasts, best,	James Clerke,	do.	1 0 0
Lucifer Matches, best,	do.	do.	0 10 0
Blocks, Wheels, and Capstans, best,	John Gaynor,	do.	3 0 0
Pumps, best,	George Taylor,	York.	1 10 0
Spinning Wheels, best,	S. Trueman,	Westmorland,	1 0 0
Turnery, best,	C. W. Raymond,	Carleton,	1 10 0
Pianos, best,	Kennay & Scribner,	Saint John,	5 0 0
Ditto, 2nd best,	do.	do.	3 0 0
Organ, best,	Isaac Naish,	York,	1 10 0
Wheelbarrow,	S. Skinner,	Saint John,	1 0 0
Carriage or Pleasure Wagon, best,	Wm. Hallett,	do.	5 0 0
Ditto, do. 2nd best,	Jer. Harrison,	do.	3 0 0
Cart for farm purposes, best,	Alex. Jessamine,	Northumberland,	2 0 0
Sleigh, best,	Wm. Hallett,	Saint John,	1 0 0
Indian Baskets, best,	C. Lockwood, (Squaw,)	York,	1 0 0

Honorable mention made of

Pianoforte,	T. Richards,	York.
Pleasure Wagons,	W. E. Payson,	Carleton.
Ditto,	Wm. Hallett,	Saint John.

Pleasure Wagons,	Jer. Harrison,	Saint John,
Cart,	S. Skinner,	do.
Weavers' Swifts,	Isaac Lawrence,	York.
Cheese Press,	Charles Bull,	Carleton.

Ditto,	W. E. Payson,	Carleton.
Ditto,	Wm. Hallett,	Saint John.

Pleasure Wagons,	Jer. Harrison,	Saint John,
Cart,	S. Skinner,	do.
Weavers' Swifts,	Isaac Lawrence,	York.
Cheese Press,	Charles Bull,	Carleton.
Dog Churn,	do.	do.
Churn,	Roderick M'Kenzie,	Northumberland.
Ditto,	Wm. Tompkins,	Carleton.
Spinning Wheel,	W. Burpe,	Sunbury.
Ditto,	Roderick M'Kenzie,	Northumberland.
Grain Cradle,	J. Vanwart,	Queen's.
Ditto,	A. Barberie and E. Gordon,	Restigouche.
Plough,	Robert Clarke,	Kent.
Octagonal Rustic Table,	Judge Street,	York.
Hay Pitching Machine,	Wm. Tompkins,	Carleton.
Fanners,	Roderick M'Kenzie,	Northumberland,
Table of native Oak,	C. Humphreys,	Saint John.

CLASS II.—SECTION C.—*Manufactures from Grain, Fibre, &c.*

Wheat Flour, Provincial, best, (Wheat grown by Dr. G. Peters, St. John.)	J. & R. Reid,	Saint John,	£1	0	0
Rye Flour, best,	George Morrow,	Sunbury,	1	0	0
Corn Meal, best,	S. Burpe,	do.	1	0	0
Oat Meal, best,	Charles Carson,	Charlotte,	1	0	0
Buckwheat Meal, best,	Hon. R. D. Wilmot,	Sunbury,	1	0	0
Barley, hulled, best,	P. M'Farlane,	York,	1	0	0
Starch from any root or grain, best,	Miss Fanny Carman,	do.	1	0	0

Maple Sugar, best,	Wm. Clarkson,	York.	£0 15 0
Biscuits, best,	Thos. Rankine,	Saint John,	1 10 0
Confectionery, best,	Robt. Lormer,	do.	1 10 0
Ditto, 2nd best, (Special,)	Thos. M'Guire,	do.	1 0 0
Grass Plait Hat or Bonnet, best,	Mrs. Benj. Jewett,	York,	1 0 0
Ditto, 2nd best,	Mrs. Benj. Jewett,	do.	0 10 0
Straw Hat or Bonnet, best,	The Misses Olive,	Albert,	0 10 0
Ropes and Cordage, best,	J. & R. Jarvis,	Saint John,	1 10 0
Thread, best,	Mrs. T. Graham,	Queen's,	0 10 0
Linen Goods, best,	James Slip,	do.	1 0 0
Ditto, 2nd best,	Joseph Sharp,	King's,	0 15 0
Paper, best,	Philps Brothers,	Saint John,	1 10 0
Cider and Vinegar, best,	Isaac Murray,	York,	1 0 0
Native Dye Stuffs, best,	Wm. Dayton,	do.	1 0 0

Honorable mention made of—

Brooms, Pails, and Brushes, from Penitentiary,	Berton Brothers,	Saint John.
Starch,	C. Carson,	Charlotte.
Biscuits,	J. C. M'Intosh,	Saint John.
Grass Plait Bonnet,	Mr. and Mrs. W. H. Short,	Queen's.
Straw Braid,	Miss Blair,	King's.
Ditto, Rustic,	do.	do.
Maple Sugar,	A. C. Evanson,	do.
Chrystallized Maple Sugar,	Wm. Clarkson,	York.
Tobacco, manufactured,	D. & J. M'Lachlan,	Northumberland.
Patent Medicines,	Fellows & Co.,	Saint John.
Linen Cloth, (12 yards,)	W. Henry,	York.

CLASS III.—Section A.—*Live Stock, &c.*

Stallion over four years, any country or breed, best,	Hugh M'Monagle,	King's,	£7 0 0

Patent Medicines, - - -	Fellows & Co.,	Saint John.	
Linen Cloth, (12 yards,) - -	W. Henry,	York.	

CLASS III.—Section A.—*Live Stock, &c.*

Stallion over four years, any country or breed, best,	Hugh M'Monagle,	King's,	£7	0 0
Ditto for agricultural purposes, best,	John Duffy,	York,	5	0 0
Ditto, do. 2nd best,	Michael Searle,	Northumberland,	3	0 0
Ditto, three years old, raised in the Province, best,	James Slip, Senr.,	Queen's,	3	0 0
Ditto, two years old, do. best,	James Burns,	York,	3	0 0
Ditto, one year old, do. best,	Patrick Morris,	do.	1	0 0
Matched Carriage Horses, best pair, -	Hon. Wm. Odell,	do.	5	0 0
Ditto Draught do. do. - -	Hon. Wm. Odell,	do.	5	0 0
Gelding two years old, raised in the Province,	I. C. Murray,	do.	2	0 0
Brood Mare and Foal, any country or breed, best,	C. M'Gibbon,	do.	3	0 0
Saddle Horse, (Roadster,) do. best,	James Murchill,	Charlotte,	3	0 0
Bull, (pure breed,) Durham, best, - -	A. C. Evanson,	King's,	4	0 0
Ditto, do. Ayrshire, best, - -	R. Jardine,	Saint John,	2	0 0
Ditto, do. of two years old, Devon,	Monmouth Fowler,	King's,	2	0 0
Ditto, do. of one year old, Ayrshire, best	Robert Gray,	York,	2	0 0
Ditto, do. do. ditto, 2nd best,	A. A. Darrow,	Saint John,	1	0 0
Ditto, do. of 1852, Durham, best,	A. C. Evanson,	King's,	1	0 0
Cow, do. of any age, Ayrshire, best,	Robert Gray,	York,	3	0 0
Ditto, do. do. 2nd best,	A. C. Evanson,	King's,	2	0 0
Ditto, do. of two years old, best, -	Robert Gray,	York,	2	0 0
Ditto, do. of one year old, best, -	Robert Gray,	do.	1	0 0
Ditto, do. of 1852, best, - -	R. Jardine,	Saint John,	1	0 0
Ditto, (mixed breed,) of any age, best, -	W. H. Odell,	York,	2	0 0
Ditto, do. do. 2nd best, -	James Shanklin,	Carleton,	1	0 0
Ditto, do. of 1852, best, -	R. H. Carman,	York,	1	0 0

Milch Cow, (mixed breed,) best, -	Government House,	York,	£3 0 0
Ditto do. 2nd best, -	W. H. Odell,	do.	2 0 0
Heifer, do. of two years old, best,	G. B. Covert,	Sunbury,	2 0 0
Ditto, do. of one year old, best,	Judge Wilmot,	York,	1 0 0
Milch Cow, (mixed breed,) of 1852, best,	Rev. W. Shore,	do.	1 0 0
Working Oxen, best yoke, - -	Isaac Murray,	do.	3 0 0
Ditto, 2nd best, - -	Isaac Murray,	do.	1 0 0
Heifer, of any age, breed, or country, best, -	Samuel Scovil,	Queen's,	2 10 0
Steer, do. do. best, -	Col. Allen,	York,	1 0 0
Ram, (pure breed,) of two years and over, best,	John Duffy,	do.	2 0 0
Ewes, do. do. best pair,	E. Simonds,	do.	2 0 0
Ram, (mixed breed,) of two years and over, best,	Col. Miles,	Sunbury,	1 10 0
Ewe, do. do. best,	H. P. Bridges,	do.	1 10 0
Wethers, do. of three years and over, best pair,	Col. Allen,	York.	1 10 0
Lambs, do. of 1852, best, - -	Col. Miles,	Sunbury,	1 0 0
Boar, (pure breed,) under one year, best, -	H. P. Bridges,	do.	1 0 0
Sow, do. of one year and over, best,	Government House,	York,	2 0 0
Ditto, do. under one year, best,	H. P. Bridges,	Sunbury,	1 0 0
Pigs, do. 4 months old, best pair,	John Duffy,	do.	1 0 0
Boar, (mixed breed,) under one year, best,	R. W. Crookshank,	Saint John,	1 0 0
Pigs, do. 5 months old, best pair,	Jo. Horncastle,	York,	1 0 0
Fowls, (pure breed,) best pair, - -	John T. Smith,	do.	0 10 0
Ditto, (mixed breed,) ditto, - -	Wm. Watts, Senr.,	do.	0 7 6
Geese, best pair, - - -	John Camber,	do.	0 7 6

Honorable mention made of—

Gelding, 3 years old, - - -	John Dibblee,	Carleton.

Honorable mention made of—

Gelding, 3 years old, - - -	John Dibblee,	Carleton.
Pair of 3 year old Fillies, - -	W. C. Joslin,	York.
Ram Lambs, - - - -	Charles Duffy,	Sunbury.
Ewes, - - - - -	R. H. Carman,	York.
Two year old Ayrshire Heifer, - -	Thomas Davidson,	Saint John.
A Brood Mare and Foal, - - -	George Jacob,	York.

CLASS III.—Section B.—*Manufactures from parts of Animals.*

Hams, best pair, - - -	Isaac Murray,	York,	£1 0 0
Butter, best, - - - -	Mrs. Mary Trueman,	Westmorland,	1 0 0
Ditto, 2nd best, - - -	Wm. Plant,	York,	0 15 0
Ditto, 3rd best, - - -	John Anderson,	Westmorland,	0 10 0
Cheese, best, - - - -	Robert Gray,	York,	2 0 0
Ditto, 2nd best, - - -	Jardine & Co. (Aiton's,)	Saint John,	1 0 0
Cod Liver Oil, best, - - -	Joshua Alexandre, Junior,	Gloucester,	1 0 0
Honey and Wax, best, - - -	E. H. Wilmot,	York,	2 0 0
Ditto, 2nd best, - -	F. P. Sharp,	Carleton,	1 0 0
Candles, best, - - - -	John Brown,	Saint John,	2 0 0
Ditto, 2nd best, - - -	Andrew Scott,	do.	1 0 0
Soap, best, - - - -	do.	do.	2 0 0
Ditto, 2nd best, - - - -	John Brown,	do.	1 0 0
Leather, best, - - - -	David Caldwell,	do.	3 0 0
Furs and Skins, best, - - -	Lockhart & Co.,	do.	2 0 0
Ditto, manufactured, - -	do.	do.	1 0 0

Stuffed Birds, best,	George Otty,	King's,	£2 0 0
Boots and Shoes,	Stephen Parsons,	Carleton,	2 0 0
Trunks, best,	John Sime,	Saint John,	2 0 0
Harness, best,	Thomas Bradley,	York,	2 0 0
Ditto, 2nd best,	Henry Rutter,	do.	1 0 0
Saddle and Bridle, best,	M. Cummins,	Saint John,	1 0 0
Blankets, best,	Abner Bull,	Carleton,	2 0 0
Ditto, 2nd best,	C. J. Smith,	King's,	1 0 0
Woollen Carpet, best,	Moses C. Burpe,	Sunbury,	2 0 0
Counterpane, woven, best,	Mrs. Musgrove,	King's,	1 0 0
Flannel, best,	John M'Gill,	Charlotte,	2 0 0
Woollen Cloth, fulled, best,	Wm. Brown,	York,	1 10 0
Ditto, do. 2nd best,	do.	do.	1 0 0
Ditto, not fulled, best,	Calvin L. Goodspeed,	do.	1 0 0
Ditto, do. 2nd best,	Wm. Trenholm,	do.	0 15 0
Mixed Homespun Cloth, best,	Charles Carson,	Charlotte,	1 10 0
Ditto, for women's wear, best,	James Trenholm,	Westmorland,	1 0 0
Ditto, with reference particularly to pattern, best,	Rev. Dr. Wiggins,	Sunbury,	1 10 0
Ditto, 2nd best,	Wm. Sherwood,	King's,	1 0 0
Woollen Shawls, (fancy pattern,) best,	Chas. H. M'Alpine,	Queen's,	1 0 0
Ditto, Socks or Stockings, best,	Adam Jackson,	York,	0 10 0
Ditto, Mittens, best,	Chas. H. M'Alpine,	Queen's,	0 10 0
Tailor's Work, best,	A. Gilmour,	Saint John,	2 0 0
Hatter's Work,	Everitt & Son, A. Magee, } Equal,	do.	1 0 0 1 0 0
Feathers and Down, best,	Mrs. Mackay,	do.	0 15 0

Hair Work,	Mrs. B. Jewett,	York.	£0 10 0
Moose Horns, best pair,	Dr. Toldervy,	do.	1 0 0
Fish, smoked and dried, best,	James Brown,	Charlotte,	2 0 0

Feathers and Down, best,	Mrs. Mackay,	do.	0	15 0

Hair Work,	Mrs. B. Jewett,	York.	£0	10 0
Moose Horns, best pair,	Dr. Toldervy,	do.	1	0 0
Fish, smoked and dried, best,	James Brown,	Charlotte,	2	0 0
Ditto, pickled,	do.	do.	2	0 0
Ditto, do. extra,	J. Dixon,	do.	2	0 0
Salmon, preserved, best,	Joseph Windsor,	Restigouche,	1	0 0
Lobster, preserved, best,	Wm. J. Fraser,	Northumberland,	2	0 0

Honorable mention made of the following—

Butter,	J. Horncastle,	York.
Ditto,	Chas. Carson,	Charlotte.
Ditto,	Chas. Emery,	Carleton.
Ditto,	Daniel Baldwin,	Northumberland.
Ditto,	Isaac Murray,	York.
Ditto,	Benj. Burpe,	Sunbury.
Ditto,	Albert Smith,	Carleton.
Cheese,	James Slip, Senr.,	Queen's.
Ditto,	E. Trueman,	Westmorland.
Honey,	Hon. Judge Wilmot,	York.
Soap,	D. Coll,	Saint John.
Glue,	Roderick M'Kenzie,	Northumberland.
Leather,	J. Dooley,	Saint John.
Ditto,	Simmonds & M'Causland,	York.
Morocco,	Michael Riley,	Saint John.

Harness, with Silver Mounting,* - -	James Reid,	York.
Harness, - - - -	D. Collins,	Saint John.
Engine Hose, - - - -	Geo. Letson,	Northumberland.
Hats, - - - -	J. Boyd,	do.
Counterpane, - - - -	C. M'Alpine,	Queen's.
Domestic Manufactures, - - -	P. Smith,	King's.
Ditto, do. - - -	Mrs. F. Ferguson,	Gloucester.
Plaid, - - - -	Mrs. Dugald Stewart,	Dalhousie.
Homespun Cloth, - - -	James Trueman,	Westmorland.
Dress Coat, - - - -	Andrew Skillen,	Saint John.
Vest, - - - -	W. P. Fowler,	do.
White Vest, - - - -	A. Gilmour,	do.
Waterproof Pantaloons, - - -	J. A. Fraser,	York.
Smoked Fish, - - - -	Wm. Tinker,	Charlotte.
Sausages, - - - -	Jacob Heber,	Saint John.
Trunk covered with Zinc, - -	J. Sime,	do.
Dressed Skins and Gloves, - -	E. Bennet,	York.
Fish, - - - - -	Capt. Robinson,	Charlotte.
Codfish, - - - - -	Joshua Alexandre,	Gloucester.
Sturgeon Oil, - - - -	J. Maclauchlan,	York.
Neatsfoot Oil, - - - -	P. Schleyer,	do.
Shark's Bones, - - - -	R. Foulis,	Saint John.

* Harness.—This was considered to be the best of any; but the Collar being an imported one, the Jury thought that they were, on that account, precluded from awarding the Premium to it.

CLASS IV.—*Fine Arts, &c.*

Oil Painting, best, - - -	Mrs. Shore,	York,	£3 0 0
Water Colour Painting, best,	Mrs. Tolderwy,	do.	2 0 0

cluded from awarding the Premium to it.

CLASS IV.—*Fine Arts, &c.*

Oil Painting, best,	Mrs. Shore,	York,	£3 0 0
Water Colour Painting, best,	Mrs. Toldervy,	do.	2 0 0
Drawings in Crayons, best,	Miss Hopkins,	do.	1 0 0
Pencil Drawing, best,	Mrs. Toldervy,	do.	1 0 0
Engraving,	J. H. Venning,	Saint John,	1 0 0
Wood Cutting,	S. Gasking,	do.	1 0 0
Typography,	W. L. Avery,	do.	1 0 0
Daguerreotype,	Thomas Ellison,	do.	1 0 0
Electrotype,	R. Fowler,	do.	1 0 0
Sculpture,	Robert M'Kim,	do.	1 0 0
Carving in Wood, best,	Capt. Knox, R. A.,	do.	1 10 0
Ornamental Writing, best,	Michael Flinn,	Northumberland,	1 0 0
Model or Design of any kind, best,	J. Wilkinson,	York.	2 0 0
Ditto of Bridge,	Wm. Murray,	Northumberland,	1 0 0
Crotchet Work, best,	Miss E. Letson,	Northumberland,	0 10 0
Cotton Fancy Knitting, best,	The Misses Allan,	York,	0 10 0
Ditto Netting, best,	Mrs. E. H. Wilmot,	do.	0 10 0
Embroidery, best,	Mrs. O. Carman,	do.	0 10 0
Braid Work, best,	Mrs. M'Killigan,	do.	0 10 0
Berlin Wool Work, best,	Miss Sarah Austin,	Saint John,	0 10 0
Raised Worsted Work, best,	Miss A. Moran,	do.	0 10 0

Honorable mention is made of—

Painting in Oil,	J. W. Gray,	Saint John.
Landscape Paintings in Oil,	Rev. C. Churchill,	York.

Water Colour Drawings, - -	E. Metcalfe,	Restigouche.
Pencil Drawing, - - -	J. Percival,	Saint John.
Design on Wood, - - -	S. Gasking,	do.
Electrotype, - - - -	Potter & Co.	do.
Plain Writing, - - - -	Miss Mary Dickson,	Northumberland.
Ornamental Gilding, - - -	Fairbanks & Co.	Saint John.
Alto Relievo in Leather, - - -	Mrs. Julius Thompson,	Charlotte.
Model of a Fog Bell, - - -	Thomas Robson,	Westmorland.
Ditto Saw and Grist Mill, - -	Thomas Robson,	do.
Ditto House and Grounds, - -	J. E. Woolford,	York.
Ditto Brick House, - -	Geo. R. Kelly,	Saint John.
Ditto Water Wheel, - -	J. H. Anderson,	do.
A series of Models and Apparatus, -	King's Coliege,	York.
Model of a Church Font, Chair and Seat, -	Lord Bishop,	do.
Model of Jerusalem, - - -	Hon. Judge Wilmot,	York.
Design of Farm Buildings, - -	L. Donaldson,	Charlotte.
Force Pump, - - - -	George Peebles,	Saint John.
Head of a Turning Lathe, - -	I. Lawrence,	York.
Model of a Ship, - - -	Capt. W. Steele,	Saint John.
Ditto do. - - - -	Capt. Brown,	Charlotte.
Ditto do. - - - -	Geo. Blatch, Jr.	Saint John.
Ditto do. - - - -	D. Currier,	York.
Model of a Register Grate, - -	S. Spiller,	Saint John.
Domestic Gas Apparatus, - -	George Peebles,	do.
Measuring Rods, - - -	Jer. Gove,	do.
Berlin Work in Frame, - - - -	Miss Walsh,	do.

Fine Knitting, - - - -	A Lady 74 years of age,	King's.
Swansdown Muff, Cuffs and Mantilla, -	Miss Hennigar,	Westmorland.
Silk Patchwork, - - - -	A Lady 90 years of age.	

Berlin Work in Frame, - - -	Miss Walsh,	do.

Fine Knitting, - - - -	A Lady 74 years of age,	King's.
Swansdown Muff, Cuffs and Mantilla, -	Miss Hennigar,	Westmorland.
Silk Patchwork, - - - -	A Lady 90 years of age.	
Hearth Rug, - - - -	Miss E. Letson,	Northumberland.
Berlin Work, - - - -	G. S. Perley,	Sunbury.
Ditto do. - - - -	G. A. Perley,	York.
Knitted Collars, - - - -	Miss Wood,	Queen's.
Royal Arms, Indian Bark Work, - -	T. E. Perley,	Carleton.
Mantilla in Feather Work, - -	Mrs. W. Mackay,	Saint John.
Bracelet in Hair Work, - - -	Mrs. Stevenson,	Charlotte.
Church Carpets, - - -	Miss Burnett,	York.
Chairs with Patchwork Covers, - -	Miss Dibblee,	do.
Chairs and Ottoman in Berlin Work, -	Miss Street,	do.
Netted Shawl, - - - -	Miss F. Carman,	do.
Braided Riding Habit, - - -	Wm. Cadwallader,	do.
Oil Paintings, - - - -	J. E. Woolford,	do.
View of Suspension Bridge and Falls of R. St. John,	G. N. Smith,	Saint John.
Maps of Palestine and New Brunswick, -	S. S. Lee,	do.
Dial Plate, - - - -	J. Brown,	Charlotte.
Watch Escapements, - - - -	Dr. Bourne,	Northumberland.
Mysterious Box, - - - -	Roderick M'Kenzie,	do.
Case of Bibles, N. B. A. Bible Society, per	Hon. Judge Parker,	Saint John.

PLOUGHING—With Horses.

1st Prize,—Gilbert Ross,	Hon. W. H. Odell's Ploughman,	York,	(Wilkie Plough,)	£6	0 0
2d Prize,—James Robertson,	Mr. A. Martin's do.	Saint John,	do.	3	0 0
3d Prize,—James Agnew,	Dr. G. P. Peters' do.	do.	do.	2	0 0

PLOUGHING—With Oxen.

1st Prize,—Peter M'Crea,	Mr. Bartlett Rainsford's Ploughman,	York,	(Barker Plough,)	£2	0 0
2d Prize,—William Howie,	Mr. Camber's do.	do.		1	0 0

By Order of the Executive Committee.

Fredericton, *3rd November*, 1852.

J. ROBB, *Secretary*.

REPORT,

On the means used to secure the Funds at the Great Exhibition.

To the Executive Committee of the New Brunswick Society.

The subscriber having, in conjunction with P. Mitchell, Esquire, of Newcastle, been appointed a Sub-Committee to discharge the duty connected with the issue, sale, and accounting for, of the Tickets of Admission to the Great Exhibition, so far as not assigned by previous Resolution to the Treasurer of the Society, begs leave to report as follows:—

That owing to the late hour at which the Admission Tickets were received from Saint John, the extent of duty which devolved on the Treasurer, under the regulations made by the Executive Committee, together with the increased attention to his own private affairs consequent on the great influx of strangers, it was found impossible to carry out literally the expressed intention of the Executive Committee in regard to the sale and accounting for of the Admission Tickets.

The subscriber therefore undertook, in conjunction with Mr. Mitchell, to superintend the distribution of the Tickets to the parties appointed to sell them, and the Treasurer appointed his confidential clerk, Mr. George Thompson, to receive the cash proceeds.

Under this arrangement Mr. Charles Brannen took charge of the Ticket Office at the Exhibition Building, assisted by Mr. Paisley; and Messrs. Beek, Brayley, and Coy, undertook to sell Tickets at their respective places of business; and to secure a faithful account of the funds, it was agreed that the money received at the Ticket Office should be accounted for every afternoon and evening, and the proceeds of the other Tickets every morning, in the presence of the party appointed to sell the Tickets, the Sub-Treasurer and the subscriber; an arrangement which was literally carried out, and which it is presumed involves all the security for accuracy that such cases admit of. The Tickets were accordingly checked by the subscriber, and the balance in money was paid over by the recipients in his presence to the Sub-Treasurer, and such memoranda of the amounts were taken as enable him to report the net receipts to have been as follows:—

Tuesday, 5th October.

At the Ticket Office, - - -	£136	19	2½	
By Mr. Beek, - - - -	56	7	9	
By Mr. Brayley, - - - -	40	13	9	
By Mr. Coy, - - - -	28	0	0	
			262	0 8½

Wednesday, 6th October.

At the Ticket Office, - - -	£106	5	1½	
By Mr. Beek, - - - -	21	5	6	
By Mr. Brayley, - - - -	4	8	9	
			131	19 4½

Thursday, 7th October.

At the Ticket Office, - - -	£76	12	9	
By Mr. Beek, - - - -	6	13	5	
By Mr. Brayley, - - - -	3	8	9	
			86	14 11

Friday, 8th October.

At the Ticket Office, - - -	£79	4	8½	
By Mr. Beek, - - - -	2	2	2	
By Mr. Brayley, - - - -	2	12	1½	
			83	19 0

Saturday, 9th October.

At the Ticket Office, - - -	£22	7	4	
By Mr. Beek, - - - -	0	13	3	
By Mr. Brayley, - - - -	0	6	7½	
By Mr. Coy, (balance of Tuesday's sales,)	0	10	0	
			23	17 2½

	£588	11	2½
From which deduct price of a Ticket refunded to a Mr. Johnston,	0	10	0
Total amount received for admission to Exhibition,	£588	1	2½
Proceeds of admission to Judge Wilmot's Lecture,	17	17	10
Proceeds of the Exhibition Song and the Society's Reports sold in the building,	5	12	2½
Grand Total, ...	£616	11	3

The regulation that no money should be received at the door, may be said to have been strictly observed; for so far as the subscriber saw, or learned from members of the Executive Committee, or Mr. Stead, one of whom was, with scarcely any intermission, stationed

at the door to supervise the entrance, not more than ten or twelve shillings were received by the door-keeper, and the amount was immediately transferred to the Ticket Office in exchange for Tickets which were put into the receiving box.

In conclusion, it is deemed proper to record that, owing most probably to the hurry and vehement demand for Tickets at the Ticket Office on Tuesday and Wednesday, losses on change and some errors which have been explained to the satisfaction of the President, there was some discrepancy between the cash accounted for and the amount due as shewn by the Tickets; and that, as a means of discovering the source of the error, the actual duty at the Ticket Office was, on the subsequent days, discharged in presence of Mr. Brannen by Mr. George Thompson and Mr. Henry S. Beek, who, at the request of the Executive Committee, consented to assist in the onerous duty at the Ticket Office.

All which is respectfully submitted.

FREDERICTON, 28*th Dec.*, 1852. J. GREGORY.

EXTRACTS FROM REPORTS OF JURORS.

Wheat.

"The Jurors feel at a loss to express their satisfaction at the general excellence and quality of samples exhibited in this most essential of agricultural products, the difficulty of deciding between many of the samples was great, and it was after a very close and minute inspection that the Jury decided on their awards.

"The first premium is awarded to No. 1154, (Jas. Henry, York.)
"The second do. do. do. 271, (Joel Everett, York.)
"The third do. do. do. 1842, (Thos. Pringle, York.)

"Two samples of Winter Wheat exhibited, both of which were superior, and the Jury beg to recommend for a special premium, sample No. 1286, (H. E. Dibblee, Carleton.)

"For the satisfaction and gratification of the Province, the Jury note underneath the weights of the different samples of Wheat, which they have no hesitation in saying cannot be surpassed for excellence in any part of the world, the measure is taken per Winchester Bushel, viz.:—

No. 1154, 67 lbs.—James Henry, York,
" 250, 67 lbs.—Wm. Moffatt, do.
" 271, 67 lbs.—Joel Everett, do.
" 1842, 67 lbs.—Thos. Pringle, do.
" 322, 67 lbs.—Dr. Pallen, Kent,
" 1986, 66 lbs.—G. L. Hatheway, York,
" 1384, 66 lbs.—Isaac Murray, do.
" 1829, 66 lbs.—John Douglas, do.
" 318, 66 lbs.—John Tweedie, Kent,
" 1270, 66 lbs.—John Dibblee, Carleton,
" 1185, 66 lbs.—William Sherwood, King's,
" 1871, 65 lbs.—W. H. Bustin, York,
" 214, 65 lbs.—G. I. Dibblee, do.
" 1383, 65 lbs.—Isaac Murray, do.
" 470, 65 lbs.—John Wyse, Northumberland,
" 468, 65 lbs.—Peter Mitchell, Northumberland,
" 599, 65 lbs.—Charles Carson, Charlotte,
" 1286, 65 lbs.—H. E. Dibblee, Carleton,
" 323, 65 lbs.—J. Potter, Kent,
" 321, 65 lbs.—W. S. Saunders, Kent,
" 1257, 65 lbs.—Geo. H. Ketchum, Carleton,

No. 1150, 65 lbs.—R. D. Wilmot, Sunbury,
" 1538, 64 lbs.—Robert Stevenson, Charlotte,
" 1270, 64 lbs.—John Dibblee, Carleton,
" 1283, 64 lbs.—R. Ketchum, do.
" 1626, 64 lbs.—H. B. Rainsford, York,
" 1336, 64 lbs.—William Dayton, do.
" ——, 64 lbs.—Dr. Peters, Saint John,
" ——, 63 lbs.—James Brown, Charlotte.

"The Jury further beg to recommend for special notice several samples of Wheat, Oats, and Barley, of superior quality from the County of Gloucester. Had opportunity permitted for sufficient quantities for competition to be brought forward, the Jury have no doubt from the samples and weight marked thereon, that they would have done equal credit to the Provincial Exhibition. The weights stated are :—

WHEAT—*Not for competition.*

James Wetherell, 65 lbs. per bushel,
David Sandoll, 63 " do.
Robert Mann, 64½ " do.
Robt. Ferguson, 63½ " do.
Wm. Fleck, 63½ " do.
Thos. Armstrong, 64½ " do.

BARLEY—*Not for competition.*

Wm. Napier, chevalier, 55½ lbs.
Wm. Bishop, 54 "
Robert Ferguson, 53½ "
Chas. Doucett, 54½ "

OATS.

Jas. Wetherell, white, 50½ lbs.
Robert Moodie, 49 "
Jas. Gilbraith, 48½ "
Robert Mann, 47 "
William Deacon, 47 "

"The Jury have with pleasure to make the same report on Oats as on Wheat. The samples exhibited number about 30, all superior.

"The first premium is awarded to No. 1809, (Dow Brooks, York.)
"The second do. No. 1347, (J. Cunningham, St John.)
"The third do. No. 1150, (John Johnston, York.)

"The respective weights of Oats exhibited, were—

Black—No. 463, 44 lbs.—George Johnston, Northumberland.
White—No. 464, 48 lbs.—John Wyse, York.
" " 1140, 57 lbs.—John Johnston, York.

White—No. 946, 51 lbs.—John M'Cafferty, York.
" " 2028, 49 lbs.—A. Barberie, Restigouche.
" " 900, 46 lbs.—Charles Carson, Charlotte.
" " 344, 46 lbs.—Hon. J. A. Street, York.
" " 1102, 49 lbs.—Chas. Bowzer, Westmorland.
" " 1347, 52 lbs.—Jas. Cunningham, St. John.
" " 1138, 51 lbs.—(*damp*) J. Murchill, Charlotte.
" " 1387, 49 lbs.—Isaac Murray, York.
" " 1809, 53 lbs.—(*not well cleaned*) D. Brooks, York.
" " 1810, 52 lbs.—[illegible]ed Patterson, York.
" " 1256, 47 lbs.—[illegible]E. Dibblee, Carlton.
" " 216, 42 lbs.—[illegible]. P. Bridges, Sunbury.
" " 466, 49 lbs.—Geo. Johnston, Northumberland.
" " 1844, 51 lbs.—W. Pringle, Jr., York.
" " 320, 50 lbs.—W. S. Caie, Kent.
" " 319, 48 lbs.—John Tweedie, Kent.

Field Root Productions.

"We, the undersigned Committee appointed to examine, adjudicate and report on the Field Root Productions, respectfully beg to report, that we have attended to that duty, and have great pleasure in reporting as follows:—

"In Potatoes your Committee find that, with one or two exceptions, the numerous samples exhibited reflect the greatest credit upon our Province, as well from their great variety as their superior qualities and size, and your Committee regret that the limited number of prizes prevent them from awarding to many the prizes to which their successful cultivation entitles them. Your Committee recommend that No. 1399 (John Harper, Charlotte,) shall have the first prize, as embracing with superior quality the greatest weight and largest size; in this sample the largest Potato weighed 1 lb. 8 oz., and six of the same sample weighed 7 lbs.; and we also recommend that No. 1379 have the second prize, (Isaac Murray, York,) and this we do, more from the superior quality than because of its size, as there are several samples of a larger size, yet the fair size of these, with their superior quality, induced your Committee to recommend this sample the second prize: of this sample a single potato weighed 11 oz., and six of the same sample 3 lbs. 7½ oz. We also recommend the following samples for superior specimens in the order in which they are named, and regret that they cannot extend a recommendation for prizes:—

"3rd.—No. 1947, one potato weighing 1 lb. 5 oz.; six of same sample 5 lbs. 12 oz.

"4th.—No. 294, (James Petty, York,) one potato 11½ oz.; six 4 lbs. 7 oz.

"5th.—No. 1269, (Gilbert Spurr, Carleton,) one weighing 1 lb. 3 oz.; six of same sample, 4 lbs. 13 oz.

"6th.—No. 254, (William Moffatt, York,) one weighing 12 oz.; six of same sample, 3 lbs. 12 oz.

"In Turnips we recommend five samples for especial notice, and consider that sample No. 1133 (T. R. Barker, York,) is entitled to the prize from the superior size, the quality being also equal to the others hereafter noticed; the largest one of this sample weighed 13 lbs., and six of the same sample weighed 57 lbs.; and we also recommend the following samples to especial notice in the order in which they are named:—

"2nd.—No. 2018, (Rev. W. Shore, York,) one 7 lbs. 12 oz.; six of same sample, 45 lbs.

"3rd.—No. 1517, (J. M'Gibbon, York,) one 9 lbs.; six of same sample, 44 lbs.

"4th.—No. 330, (Archibald Plummer, Sunbury,) one 10 lbs.; six of same sample, 47 lbs.

"5th.—No. 902, (Charles Carson, Charlotte,) one 6¼ lbs.; six of same sample, 38 lbs.

"In weight, No. 4 exceeds Nos. 2 and 3, yet we gave them the preference from superior quality, taking into consideration the respective weights."

"In Mangold Wurtzel, we recommend five samples as worthy of especial notice, and recommend for the prize No. 328, (James Harrison, Sunbury,) the largest of which weighed 8 lbs. 8 oz., and six weighed 42 lbs. We also recommend as worthy of being observed on in the order in which they are placed:—

"2nd.—No. 380, (Col. Miles, Sunbury,) one 8 lbs. 4 oz.; six of same sample, 40 lbs.

"3rd.—No. 949, (John M'Cafferty, York,) one 8 lbs. 12 oz.; six of same sample, 38 lbs.

"4th.—No. 263 (J. A. Maclauchlan, York,) one 9 lbs.; six of same sample, 35 lbs.

"5th.—No. 1381, (Isaac Murray, York,) one 6 lbs.; six of same sample, 30 lbs."

"In White Carrots, we recommend three samples as being superior, and consider No. 1846, (Geo. Sick, York,) one weighing 3 lbs., and six of them 15 lbs., as entitled to the prize; and as worthy of especial notice, we recommend No. 1519, (J. Foshay, York,) one weighing 2 lbs. 12 oz., and six weighing 14 lbs. 8 oz.; No. 594, (Charles Carson, Charlotte,) one weighing 1 lb. 12½ oz., and six weighing 9 lbs."

Fruit, &c.

"The undersigned Judges, having been appointed to examine and determine on Apples, Pears, Pickles and Preserves, sent to the Provincial Exhibition, having carefully examined the same, make the following Report:—

"That sample No. 2022, (F. P. Sharp, Carleton,) is entitled to the prize on Apples for the best assortment of named varieties, containing 22 samples, and these, though not so numerous as others exhibited, we consider entitled to the prize, as comprising the greatest assortment of superior varieties.

"We also recommend samples No. 934 and 1551, in the order in which they are named, as being superior samples, and containing great varieties, viz.:—

No. 934, containing 28 samples (W. Watts, Senr., York);
No. 1551, " 16 samples (Isaac Lawrence, York);
and these we consider entitled to especial recommendation.

"We also beg to notice 1570, (Isaac Murray, York,) containing 8 samples, and No. 967, (Hon. Judge Street, York,) containing 23 samples, as being worthy of commendation.

"We would further observe, that No. 1591, (W. Hallett, York,) 493, (G. Cougle, King's,) and 1152, (R. D. Wilmot, Sunbury,) are worthy of notice as being good descriptions.

"The above Apples were named and the varieties kept distinct, but in addition to these a great number of superior samples were exhibited, well worthy of notice, but the varieties of which were not named. In conclusion, ot this department of our duties, we beg to notice a sample of Apples presented by Samuel W. Babbit, Esq., for exhibition only, called "*The Beauty of Kent*," and these we consider entitled to the appellation of "*The Apples of the Exhibition*," exceeding in size and beauty any others exhibited, and quite equal in flavour. We are also glad to observe that the exhibitor of 934, (W. Watts, Senr., York,) has intimated to the Committee his ability to supply the public with grafts and young trees, of his own raising, of the various samples, and we consider that to this important fact special attention should be directed, and we trust that the public patronage will be extended to so enterprising an exhibitor.

"We would also favorably notice a basket of assorted Fruit, containing Peaches, Plums, Grapes, &c. &c., of superior description, sent for exhibition only, by G. D. Street, Esq., of St. Andrews, and we regret that no prizes were laid down for such description of Fruit, to which they would certainly have been entitled. We regret that only one prize should have been awarded for Apples, as the several samples were truly creditable to the Province, and find much difficulty in determining the superiority of several of the largest samples of named varieties.

"We award the prize on Pears to No. 1571, (Isaac Murray, York,) containing 2 varieties, and consider them superior.

"No. 936, (Mrs. W. Watts, Senr., York,) containing 8 varieties of Pickles, we award a premium to, and consider them a very creditable assortment, and the Committee have received notice that the exhibitor can supply any reasonable quantity.

"The premium on Preserves we recommend should be awarded to No. 935, (Mrs. W. Watts, Senr., York,) containing 16 varieties, of a superior description.

"Your Committee cannot close this Report without noticing an impression they formed on inspecting the different varieties of Fruits, so creditable to our Province, and capable of comparison with the productions of older and more favored countries, and have no hesitation in pronouncing New Brunswick to be capable, when time and skill are directed to the subject, of producing superior Fruit and innumerable varieties."

Leather, &c.

"Without going into any further description of the different lots exhibited, we are of opinion that the Leather sent for competition to the present Exhibition of so superior a kind, that it proves that the inhabitants of New Brunswick need not go to a foreign market for their supply.

"In Harness, the Committee award the first prize to numbers 1301 and 1302, (Thomas Bradley, York,) being a lot from one saddler, consisting of a set of single Harness and four Collars, as being the best assortment of Harness manufactured entirely in this Province. The second premium we award to 1369, a set of single Harness with silver mounting. No. 1654, (James D. Reid, York,). We consider the workmanship of this set of single Harness as the best of any exhibited, but the Collar being an imported one, we cannot award this lot a prize.

"We must also express our approbation of a set of single Harness, with brass mountings, No. 2030, (D. Collins, St. John,) on account of the ingenious improvement in the tug, and which, from its great utility and simplicity, we strongly recommend to the attention of the public."

Hose Cart or Carriage.

"This article we cannot represent as fully as it deserves; it combines good taste in design and good skill in workmanship rarely excelled; great ingenuity is displayed by the maker for the mode he has adopted in securing the carriage to the fore axle, which admits of the vehicle being turned round in a comparatively small space. We believe this to be a new invention, and suggest that the highest award be given."

Clocks and Watches.

"Two Astronomical Clocks examined. The Clock with no number is considered by the Jury to deserve the preference on account of the friction being much diminished by the absence of the train wheel in the face, as also its being provided with a compensation pendulum, and to it we award the premium. Both, however, are worthy of high consideration for beauty and perfection of workmanship.

"The Watches exhibited by a M. D. Z., for the purpose of explaining certain changes in the construction of the escapement, which the exhibitor considers to be improvements on the same. That numbered 1452, appears to be different from anything heretofore seen by the Jury, and shews considerable ingenuity, but whether the proposed alteration may be conducive to greater accuracy of performance, could only be determined by comparison and registration for an ample period of time. No. 2951 is not a novelty, as one of the Jury has seen a similar one many years ago, and it can scarcely be considered superior to a common vertical escapement, as the vibration is very limited, and the Watch cannot, therefore, be expected to perform well. No premium, however, is mentioned in the list for improvements in Watches, and the Jury do not think it necessary to recommend one to be given in the present case."

Musical Instruments.

"We, having carefully examined and considered the relative qualities of the different Pianos submitted for competition at our Provincial Exhibition, are of opinion that the one marked 475, No. 2, (Kennay & Scribner, St. John,) presenting as it does the greatest number of advantages in proportion to its price, is fully entitled to the first premium, and do award it accordingly.

"On similar grounds we adjudge the second best premium to that marked 475, No. 1, (the same.)

"The Piano, numbered 1372, (Thos. Richards, York,) in the Secretary's Book, we consider highly creditable to the manufacturer and displaying excellent workmanship, but are of opinion that its quality does not bear so fair in comparison with its price as to justify us in putting it on an equal footing with either of the above mentioned; guided as we are by the three essential considerations combined in the 12th rule, page 327 of the Society's Journal, Part III.

"No other Musical Instrument has been offered to our notice excepting a very superior Finger Organ, (Isaac Naish, York,) the number of which in the Secretary's Book we have not ascertained. We consider, however, the quality of this Instrument so intrinsically good, that we cannot refrain from strongly recommending it for the premium which we have reason to believe, nothing but a want of competition prevents us from being called upon to award to it."

Flour.

"The Committee deem it of importance to remark that, as the Flour ground from imported Wheat might perhaps not be entitled to compete with Flour ground from New Brunswick Wheat, yet, as the whole was inspected without reference or knowledge of the place of production, and the result has shewn the superiority of the native production, that good rather than harm has resulted from the open competition. They would further state, that both first samples of Flour from New Brunswick Wheat are superior in all respects, whether as household Flour or for bakers' use, to the Flour ground from white Genessee Wheat."

Hone Stone.

"A sample of Hone Stone from Dalhousie, No. 73, (Dr. Robb, York,) an exceedingly good specimen, capable of giving the finest possible edge, it would not cut as fast as Turkish stone, but would leave a finer and smoother edge.

"As the Exhibition displays nothing equal to this, we would suggest that it be entitled to a premium."

Surgeon's Truss.

"The undersigned having been appointed a Special Jury to examine an improved Surgeon's Truss, No. 1679, (Dr. Fletcher, Charlotte,) report, that they highly approve of the principle, and think it a decided improvement upon the Trusses commonly in use, and therefore recommend it to the Provincial Association as an object worthy of their approbation. The improvement consists in a self-adjusting movement at the connection of the pad with the spring, by which the bearing can be regulated by the patient when necessary."

Astronomical Instruments, &c.

"1. Examined a reflecting Telescope, on the Newtonian form (Dr. Toldervy, York,); the large speculum is 7 inches in diameter, with a focal length of 6½ feet, stated to have been ground and polished by machinery made after the plan adopted by Lord Ross.

"The Telescope stand and grinding apparatus reflect great credit on the perseverance and handicraft of the ingenious constructor. To it we award the premium, as being the most deserving of the astronomical instruments exhibited, and made in the Province.

"2. Examined with much interest the clockwork, micrometer and lamps, belonging to the refracting Telescope at King's College, from the workshop of Merz & Son, of Munich, in Bavaria; these were exhibited for the purpose of shewing the great perfection attained in their manufacture, and the admirable nicety with which they are adapted to the ends contemplated in their construction.

"3. Examined Levelling Staves, No. 1705, (Jeremiah Gove, St. John,) and Artificer's Scales, No. 1706, (same). The workmanship and materials are good, and for these the exhibitor is entitled to much credit, but the Staves are now entirely superseded by others of more approved forms.

"Examined three Electric Clocks, (Dr. Toldervy, York,) each of which takes its time from a common Clock, with which they must necessarily agree, though separated from it and from each other by hundreds of miles; the connection is made by wires through which is sent the magnetic current, at the end of each movement of the minute hand of the common Clock; the ingenuity and simplicity of the contrivance cannot be too highly commended, and the accuracy with which, at small expense, the same time might be indicated by means of the telegraphic wires in use, over any extent of country, is deserving of particular notice. In two of the Clocks the moving power is the electro-magnet, the other is intended as a model of a Turret Clock, which is moved by a weight, the electro-magnet releasing the escape wheel.

"To this scientific piece of mechanism we award the first premium, as being the best electrical instrument.

"The following notice is appended to the apparatus by the exhibitor:—

"'I claim the merit of the invention, my first Clock having been in operation in the summer of 1840, nearly twelve months before the patent was granted to Messrs. Barwise & Bain, in England.'

"Examined a Magneto Electric Machine, for exhibition only, from King's College. The advantage of this Machine is that it is always ready for use, as shocks can be given by it without the trouble of batteries, or chemical solutions, or the removal of deposits."

Philosophical Machines and Models.

"For this department no prize has been provided in the list, but the Jury beg to report that they have examined

"Model of a Bridge, No. 461, (W. Murray, Northumberland). This is a structure in which the strain appears to be judiciously distributed, so as to attain great strength with little expenditure of labour and materials; for spans of moderate extent it might be introduced with much advantage.—(2nd prize.)

"Model of what is called the Barrel Bridge (P. Stubs, Esq., St. John). This model is beautifully constructed; but the greatest strain is across the fibres, or in the direction of the least strength of the wood, in which direction is also the greatest amount of shrinkage; it is further objectionable on account of the large quantity of materials required, and the staves being so placed as to make it difficult to protect them from rapid decay, for these reasons we would not recommend the rearing of a structure after this model.

"Model of a Fog Bell (Thomas Robson, Westmorland). This is an ingenious application of the force of the wind to give motion to the hammer of a Bell; but unless it can be proved (and no small amount of evidence would be required) that a fog is always accompanied by a current of air sufficiently strong to drive the machinery, the using of it for the purpose contemplated might lead to fatal consequences.

"Model of a Saw and Grist Mill, (Thomas Robson, Westmorland.) In this the motive power is derived from the same source as in the above, but we fear that difficulties of a practical nature would be encountered in the attempt to make a machine sufficiently powerful to do the work indicated in any but a strong breeze; if, however, the force can be obtained, it is very judiciously and economically distributed.

"Carefully executed model of House and Grounds near Fredericton (J. E. Woolford, York).

"Model of Water Wheel, No. 1900 (J. H. Anderson, St. John). This is a very ingenious contrivance, but the principle is not entirely new, as upright wheels of similar construction are, we believe, used in France, and we think in practice it would not be found to possess all the advantages its exhibitor claims for it.

Fine working model of Centrifugal Pump (J. Wilkinson, Esq., York). This appears to be much superior in efficacy to the common Centrifugal Pump, which generally consists of tubes united in the form of the letter T, placed perpendicularly in the water to be raised; here, however, instead of the horizontal strait tube there is a hollow cylinder of the same diameter as the length of the tube would be; the quantity of water it is capable of raising and discharging is quite surprising; the exhibitor states that the model was constructed in 1835, and that the idea had occurred to him some time previously. (First Prize.)"

Non-Enumerated Articles.

Glue, Churn, &c.

"Glue, No. 540, manufactured by Roderick McKenzie, we think worthy of special commendation.

"A Churn, No. 405, a Fanning Mill, No. 445, and a Spinning Wheel, No. 456, with improved head, the construction and manufacture of Roderick McKenzie, we think entitled to special notice. The Fanning Mill we would venture to say deserves a premium for some ingenious improvements it possesses. The Spinning Wheel also appears to possess a principle which is worthy of commendation."

Honey and Honey Comb.

"Honey and Honey Comb, with live Bees, No. 2023, from Carleton County, by F. P. Sharp, we think highly worthy of notice, and would have received the prize, we are sure, if it had been exhibited in proper time."

Sports.

"The Highland games of 'putting the Stone' and 'throwing the Hammer' created considerable interest, the prize for the former being awarded to F. Jenkins, who put the (24 lbs.) shot 24 feet, 2 inches. The prize for the latter was well contested, many of the competitors throwing the Hammer (7 lbs.) for the first time; the prize was won by Jeremiah Smith, who threw the Hammer 61 feet, 3 inches.

"'Pitching the Handspike.' This truly Provincial game created great interest and amusement, the prize being eventually won by Benjamin Wheeler, the distance pitched being 35 feet, 8 inches, beating his adversary, J. T. Douglas, Jr., by less than 2 inches.

"Jumping—'the Standing Jumps.' This game created great excitement owing to the keenness of the competition and the excellence of the Jumping. The prize was cleverly won by Corporal Ballard, 72d Regiment, whose 3 jumps measured 33 feet, 10 inches.

"'Jumping with the Pole.' This game was contested with much spirit and varied success. T. O. Miles, Jr., was eventually declared the winner; the greatest height jumped was 8 feet, 10 inches.

"'Hop, Step, and Jump.' Unusual excitement and competition took place for this prize, Corporal Ballard, 72d Regiment, taking it with much difficulty from Private J. McDonald of the same Regiment. The ground covered in this game amounted to no less than 40 feet, 5 inches."

Extracts from Letters of Exhibitors, &c.

Corn.

"Land, a rich sandy loam, green sward, deeply ploughed in Spring, well harrowed, and furrows drawn with plough from 28 to 30 inches apart, and manured from the hogpen, with a full shovel to the hill, 25 to 28 inches apart. The manure slightly covered in the earth, and from 3 to 4 seed to the hill. Seed soaked 24 hours before planting, and well dried with plaster, is put into the ground and covered with the hoe, and kept clean in the usual way. Planted 28th May. Harvested last week in September. Quantity computed from product of one square rod, which gave a full bushel and a half of husked ears, which I reckon to give (allowing for shrinkage and cob,) 15 quarts to the rod, making the yield 75 bushels to the acre.

"H. E. DIBBLEE.

"WOODSTOCK, 3*d October*, 1352."

Wheat.

"White bald Wheat, raised on low land, well under drained, soil rather sandy, with clay bottom; previous crop, turnips; cross ploughed this spring nine inches deep, (with an American deep tiller) dressed with lime and ashes wet with urine, seed washed with cold water and limed, sowed 10th May, and ploughed in 4 inches deep, reaped 1st of September. Yield 32 bushels per acre.

"ROBERT STEVENSON.

"ST. ANDREWS, *Sept. 29th*, 1852."

Red Wheat.

"Last year there was turnips and potatoes on the land, ploughed it this spring, manured to the extent of thirty loads of lime compost to the acre, harrowed the seed in with the compost. The soil is sandy and very light.

"Ploughed on the 28th April; sowed on the 9th of May; reaped on the 14th of August.

"I consider the land will yield 32 to 24 bushels to the acre in ordinary seasons; but owing to the great dryness of the season, did not obtain more than 15 bushels per acre. I had four acres sown.

"J. PALLEN.

"RICHIBUCTO, *September 25th*, 1852."

Red Wheat.

"I ploughed the lee ground and took one crop of oats in the fall of the year, top dressed it with stable manure and compost mixed, and ploughed it down. I put about 30 cart loads to each acre; I sowed at the rate of 1¾ bushels of Wheat to each acre.

"The Wheat was sowed on the 3rd of May, and reaped on the 19th of August; its yield will be at the rate of twenty-four bushels to the acre. The sample sown is Red Wheat.

"I pasture two years; then two crops of Oats; then Potatoes; and after Wheat, sown down with Hay Seed, say 6 lbs. Timothy, and 3 lbs. of Clover to the acre; and then cut two crops of Hay, and then pasture a year. The soil is dark loam.

"JOHN TWEEDIE.

"KOUCHIBOUGUAC, *September* 23, 1852."

Wheat.

"My Wheat was raised on ground which grew Potatoes and Turnips last year. The field contains about four acres, three acres of Potatoes, and one of Turnips, which received about forty cart loads of stable manure per acre. It is a heavy clayey soil, was ploughed about the 1st of May, sowed on the 9th of May, and reaped on the 16th of August. I sowed in the whole field 7 bushels, say 5 red and 2 white Wheat, which yielded 20 bushels to the acre, or 11½ returns. White and red about the same.

"My mode of cropping is—Pasture two years; Oats two years; Potatoes one year, and manure forty loads to the acre; Wheat one year, and grass seeds; Hay two or three years.

"WILLIAM SAUNDERS.

"KOUCHIBOUGUAC, *September* 21, 1852."

Winter Wheat.

"Sample of Winter Wheat one-half bushel, grown the past year. Land light sandy loam, in Carrots two previous years. Sown the 10th October, and reaped the 25th August, 1852; one-half acre sown; yield light, part winter killed, the Wheat not having sufficient root. I am satisfied this Wheat can be grown as successfully as Summer Wheat by early sowing and deep covering.

"H. E. DIBBLEE.

"WOODSTOCK, *October* 3, 1853."

Oats.

"Quantity per acre, as computed, 50 bushels; soil, upland sandy loam, green clover sward, ploughed in spring directly before sowing.

Sown the 25th May, and reaped the 15th September. The quantity is computed thus:—two square rods, situate in different parts of the field, of a medium quality, and carefully harrowed; the produce of these rods, differing 1¼ lbs. in weight, were then put together, and found to measure nearly 21 quarts by sealed measures; taking, then, 10 quarts to the square rod, will give 50 bushels to the acre.

"H. E. DIBBLEE.

"WOODSTOCK, *October* 3, 1852."

Oats.

"The kind of Oats which accompanies this (in a box marked with my name,) was originally imported to Bathurst, I think seven or eight years ago, is called the "*Poland Oat.*" Seems to answer the soil and climate of New Brunswick much better than the Potato Oat, from which *in appearance* it only differs, by having no *bosom pickle*; its weight has increased since being imported. This season having been very dry in the County of Kent, the grain is not as heavy or plump as it would have been, had the season been as wet as usual.

"This grain was raised on a piece of ground off which hay was cut last and the previous six or seven years. It was added last fall to a field on which was potatoes last season, to make the field a proper size. Before being ploughed, it received a top dressing of about thirty cart loads to the acre, of a compost put up last summer, of black bog and lime, well mixed before being put on. The whole field was ploughed last fall, and again this spring. I intended sowing Wheat on the whole field and laying it down with Grass Seed; but before the addition, or the piece on which these Oats grew, was ready, the season was rather far advanced for Wheat, and my farmer advised the sowing of the Poland Oats on it, which he did on the 15th of May, and laid the whole field down with 2 lbs. of Clover and 5 lbs. of Timothy. The soil being of a heavy dark brown loam, and rich, he thought 2 bushels to the acre sufficient, and accordingly sowed 2½ bushels on the 1¼ acres, which the piece contained, and which proved quite enough. It was cut on the 16th of August, and produced 72 stooks, which thrashed out fully 3 pecks each, in all 54 bushels, or 22 returns. (Last year I had about the same return.) I may also state, that the straw of the Poland Oat is eaten by cattle much better than that of the Potato Oat.

"I propose cropping in the following manner, but having had the farm only three years, I cannot say how it will answer:—Pasture one or two years; Oats two years, after two years pasturing; Potatoes one year, with compost manure, if possible; Hay two to four years—if the latter, a top dressing the 2nd or 3rd year; then Pasture again.

"WILLIAM S. CAIE.

"KOUCHIBOUGUAC, *September* 21, 1852."

"St. Patrick, *April 13th*, 1853.

"Dear Sir,—You request me to give you my plan of pork-raising; I shall state the course that I have followed for the last two years. I keep one sow that farrows about the first of January, when about six months old, and generally from six to eight pigs, which I sell at ten shillings each. In the month of May the sow farrows again, and generally has from ten to twelve pigs, from which I select six of the best for pork the next winter, and sell the remainder at ten shillings each. I let the sow farrow the third time, and from the pigs I select the two best for the purpose of breeding for the next year, for, from experience, I find the third litter the best for breeding or to raise the stock from. I then fatten the sow, which generally weighs from 4 to 5 cwt., and the other six I feed from twelve to thirteen months, then have them killed, they mostly weighing from 300 to 325 lbs. each. I have fed the above swine on the produce of two acres of land and the refuse milk of a dairy of seven cows.

"The land was cropped as follows:—On one acre, Swedish Turnips, raised on grass land, yielding 1200 bushels; a quarter of an acre of Carrots, 240 bushels; three-fourths of an acre of Barley, 35 bushels. The ground on which the Carrots were raised, has received no manure for the last four years, except irrigation, and the soil seems to increase in richness. The pigs make manure enough for the acre of Turnips. The leaves are fed to the swine through the summer and fall, without any injury to the Carrot or Turnip. All the roots are fed raw; I have tried the experiment of steaming, but I consider it useless. The Barley is ground in the mill and fermented, and fed in a soft state.

"I here send you the whole facts, and if you think them worthy of notice, you can put them in proper form. The sale of the young pigs pays for the seed and cultivation of the land.

"CHARLES CARSON.

"Dr. Robb, Secretary, &c."

Sussex Farmers.—W. A. Stockton, Esq., of King's County, procured from his farm for this year 12 Pigs, making 36 cwt. of Pork; 10 were eight months old, and averaged in weight 280 lbs. each. The sow from which these were bred (killed at the same time) was eighteen months old, and weighed 410 lbs. Mr. S. produced from 7 cows this summer, over 1000 lbs. of butter. Mr. Hayward, a neighbor of his, brought to market this week, 8 Pigs about the same age, viz., 8 months, which weighed on an average 334 lbs., the heaviest weighing 367. He also produced about 1000 lbs. of Butter from a Dairy of 13 cows.

The above farmers have spared no pains in procuring the best

breed, and we congratulate them on the very satisfactory results. We trust the farmers of New Brunswick will not be long in following their example.

The following is communicated by Lauchlan Donaldson, Esquire, of Saint Andrews:—

"A gentleman residing in town has a lot 80 feet by 160, which was sown in clover. On the 28th of May he began to cut it, and since that time, with the exception of six days, has fed 28 lbs. of clover each, to two cows, morning and evening, or one cwt. per day; he will be able to continue the same until the 15th or 20th October. This is truly a great yield from less than one-third of an acre. The THIRD crop is now in full blossom, and upwards of twenty-six inches high, and so thick that it is lodging. Upon inquiry we learned that the lot was put in order by spade husbandry; the cattle are not allowed to pasture on it, but the clover is cut when about to be fed and carried off on a barrow. We were astonished to see the fourth crop on part of the lot looking well. This shows, conclusively, that one acre well tilled, is better than two poorly cultivated."

We have been recently furnished with an interesting statistical report of the District Agricultural Shows for York County, the following table from which, will show the weight of grain, &c., in the several Parishes:—

	wheat	oats	bwht.	peas	beans	rye	barley	I. corn.
Kingsclear,	63½	44¼	55	64	65			
Prince William,	67	45	57½	67	65	62	56	60
Dumfries,	66	55	51					67
Southampton,	65	51	52½	66	65	54		63
Queensbury,	69	42½	52	67	70	61		66½
Douglas,	72½	59½	66	75½	81½	69½		
Stanley,	66	50	53	66				
St. Mary's.	53	43	53	63		49		

"WOODSTOCK, *January 28th*, 1853.

"The information which we most need at the present time, is a knowledge of *the varieties of winter fruit adapted to this climate.* It was partly to obtain an addition to my stock of knowledge upon this point, that I made my recent visit to the State of Maine, where I visited over 30 towns, lying principally between the Penobscot and Kennebec.

"From the fruit which I there saw and tasted, and which grew in a climate similar, but upon a soil far inferior to our own, I have no

doubt that we have advantages in raising winter apples *for export*, equal if not superior to those of any other country. After returning to Bangor, (from the country,) the best imported apples in the city *would not at all compare* with those which I obtained 40 miles in the interior. Herewith is a note of the apples which I sent to the Exhibition :—

"*Fameuse, or Snow Apple.*—A very excellent early winter apple, very hardy and productive, and peculiarly adapted to northern climates. Scions from Green Islands, Lower Canada, and from Montreal. True.

"*Pomme Gris, or Grey Apple.*—Moderately hardy and very productive. The fruit, though very small, is, when well ripened, exceedingly rich, and brings the highest price in the English market; a very long keeper. It is said that two-thirds of all the trees grafted in Canada are of this variety and the Fameuse. Scions from Green Islands, C. E. True.

"*Holland Pippin.*—Fruit from medium to large size, mellow, and of a pleasant acid flavor. Moderately hardy when young, and very hardy when old; a great and constant bearer. Season—middle September to middle of October. Scions from Dunning, Bangor, Me.

"*Wine Apple.*—Large, moderately productive and a good keeper; when ripe, is fine grained, tender, and of the finest quality. Growth slow, but sufficiently hardy for New Brunswick. Scions from Dunning, Bangor, Me.

"*Sweet Bough.*—Tree tender, but with care will succeed well here; regular, but, as far as tried, only a moderate bearer; probably will bear heavily as the tree advances in age. Fruit of the highest quality, very tender and juicy. Season—middle of August to middle of October. Scions from Bangor and New York. True.

"*Kennebec Sweeting.*—A very beautiful and excellent small early apple, very hardy and exceedingly productive. Does not keep long after ripe. Scions from Amity and Kennebec, Me. True.

"*Honey Pink.*—A very excellent winter sweet apple, hardy, and so far moderately productive, and keeps well. Scions from Dunning, Bangor, Me.

"*Ribston Pippin—the Apple of England.*—Size medium, very rich and excellent, a good keeper, moderately hardy and productive. Much better and more productive here than further West or South. Scions from Col. H. Little, Bangor, Me., and from New York.

"*Flemming Early.*—A showy, pleasantly acid, and very mellow apple, of only second-rate quality; does not keep well, bears very early, and is very productive.

"*Bullock's Pippin, or American Golden Russet.*—Large size,

and a very valuable winter apple of the finest quality when properly ripened. Very productive and moderately hardy. Better and larger here than further West. Scions from Breck & Co., Boston, and from Col. H. Little, Bangor. True.

"*Ruby Russet.*—Hardy and productive, but hardly second-rate. Not suited to our climate.

"*Roxbury Russet.*—A celebrated apple of Massachusetts, but can be raised here only by skill, or upon very favorable soil, and is very tender. Scions from Boston and Bangor.

"*Sweet Bourassa.*—Productive and moderately hardy. Fruit of the highest quality, very tender and juicy. Season—October. Scions from Green Islands, C. E.

"*Tallman Sweeting.*—A celebrated apple, but very tender; not so productive or good as *Honey Pink* and some others. Not recommended. Scions from Bangor.

"*English Nonpareil.*—A very fair winter apple, but requires good cultivation, and is not very hardy or productive.

"*Swaar.*—Large and excellent when ripe, but requires good soil and skill to produce fruit. Unfit for this climate for general cultivation. Scions from Bangor.

"*Sops of Wine.*—Medium size, very valuable, productive and hardy. Fruit of the first class, when in season, say from last week in August to last week in September; better here than further South and West. Scions from Bangor, New York, and Canada. True.

"*Red Astrachan.*—Celebrated Russian fruit, exceedingly hardy and productive. Fruit large and very beautiful, excellent for the table and cooking. Not so sour here as when grown further South. Scions from Col. H. Little, Bangor. True.

"*Williams' Favorite.*—Somewhat tender when young, but valuable for its productiveness, large size, excellent flavor, and beauty of the fruit. Season—September. Scions from H. L., Bangor. True.

"*Dyer.*—Tree tender, and fruit only second-rate.

"*Peabody Greening.*—Originated at Woodstock, fruit only second-rate, but valuable on account of its very early bearing, great and regular productiveness, good keeping qualities, and from its growing on poor land and without much care. Good for beginners.

"*Hawley.*—Large and excellent for cooking, and keeps twelve months; only medium for the table.

"This is the best description I can, with my limited experience, give at present. Many of the specimens sent are inferior, as the best were stolen.

"FRANCIS P. SHARP.

"DR. ROBB, Fredericton."

Willard's Butter Machine.

"It being universally admitted that the great cause of butter turning rancid and unfit for the table, is, first, the cream not being of a proper temperature when churned; second, the buttermilk not being thoroughly extracted; and third, it being salted with dry salt, instead of a strong brine or pickle.

"This Machine is so constructed that the butter can be made in much less time than by any other process, by male or female labour; and the Butter turned out perfectly cleansed from all impurity, and pressed into squares without being touched by the hand. During the process, the butter is impregnated with a very strong cleansed pickle, sufficient to keep it sweet all seasons of the year, and for a long time. butter prepared by this machine may be kept years, if excluded from the air, in as pure a state as when from the machine.

"The subscriber is prepared to grant licences for the manufacture and sale of this invention.

"ASA WILLARD.

"St. John, N. B., *September 10th*, 1851."

"Newcastle, *30th August*, 1852.

"Dear Sir,—Mrs. Goodfellow has used the No. 3 size of 'Willard's Butter Machine,' manufactured by you, constantly, since I purchased it from you in May last, and find that it makes the butter in very much less time, and with less labor than any other churn we have ever tried. It separates the butter from the milk so that not a particle of butter remains, consequently a larger quantity of butter is obtained from the same quantity of milk. The butter is thoroughly washed, and may be salted by the churn without being touched by the hand, (a great object in warm weather,) and is much cleaner and in better order than can be made after the old fashion, and the whole operation may be performed in the best carpeted parlor, without leaving a speck or stain, and the machine itself is easily cleaned and kept in order. I consider it decidedly the best churn I have ever seen, and have no hesitation in recommending it to the public. You are at liberty to make such use of this letter as you may see fit.

"Your obedient servant,

"ALEX. GOODFELLOW.

"Mr. Oliver Willard, Newcastle."

Churn and Butter Washer.

"1st. This churn will keep in circulation all the cream that is put into it, during the process of churning, which, in my belief, is not done by any other churn that has come before the public.

"2nd. The vent, or free circulation of air, so essential in churning, is better provided for in this churn, than in any which has as yet made its appearance.

"3rd. There is no metallic substance in the interior of this churn, that can come in contact with the cream or butter, in the process of churning and washing.

"4th. As the salting of butter *in the churn*, is injurious to the wood of which it is made, it is recommended not to do so.

"5th. As the axle in this churn runs entirely in wood, no metallic deposit can be formed which might discolour the butter, or impair its flavor.

"R. M'KENZIE."

"Mr. Roderick M'Kenzie is a resident of Newcastle, Miramichi; he has manufactured a number of superior Butter Churns, and as this certificate is expected to accompany the same to the Exhibition at Fredericton, we sincerely hope that such an excellent article will not be allowed to pass without either a trial or examination; all who have had a trial of them seem to think that nothing is wanted but to make such an excellent article known to the public. We can certify that we have known excellent butter produced by these churns, in three and a half, or more minutes.

"A. Kirk,	George Watt,
Calvin Niven,	William Gremley,
Thos. P. Bourne,	Sarah Harkins,
Catharine M'Tavish,	Anastasia Bagnall,
John Bagnall,	Wm. Henderson, A. M.,
William Masson,	Isabella Masson.

"Newcastle, 30*th September*, 1852."

Fanning Machine.

"The Fanning Machine is constructed on a different principle from that of any invented, or in use in this part of the country, in the following particulars:—

"1st. That all the wind that is collected in the cylinder is thrown to the place where the grain is emitted from the hopper to the slide, by which means the wind acts more powerfully on the grain, and cleanses it thoroughly, that no wind escapes except where the chaff is ejected.

"2nd. That the riddle and sieve are driven by a different process than formerly, being now driven by means of a spring and pulley, and not as heretofore by a crank, which occasions a very small amount of friction, and is accompanied by little or no noise.

"3rd. The machine now exhibited has two riddles and one

sieve, which is sufficient to cleanse wheat, barley, oats, rye, buckwheat, peas or beans; should smaller grains or seeds, such as hay seed, be required to be cleaned, small riddles or sieves can be attached in the place of those now in the machine, with a trifling expense in addition.

"4th. A Fanning Machine similar to the one exhibited, has been in operation for the last two years, and has not cost 2s. 6d. for repairs, and has performed a vast amount of work in the neighborhood, and is now in first rate working order.

"RODERICK M'KENZIE."

"We, the undersigned, inhabitants of the Town of Newcastle, do hereby certify that we have had occasion to call on Mr. Roderick M'Kenzie for the use of his Fanning Machine. We cheerfully certify that the machine has worked admirably well, and done entire satisfaction, the grain thoroughly cleaned, and the work done with great expedition.

"Allan A. Davidson,	Wm. Grimley,
Edwd. Williston,	J. C. Allan,
Patrick Morrissy,	William Loch,
George Watt,	Edward Farrell,
George Ingrem,	Winckworth Allan,
Moses M. Sargeant,	William Falconer,
Oliver Willard,	H. H. Patten,
John Miller,	John Brander,
Calvin Niven,	John Bagnall,
Wm. Henderson, A. M.,	William Masson.

"Newcastle, 30*th September*, 1853."

Bee Hive.

"This Hive combines all the useful properties of 'Miner's Patent Equilateral Bee Hive,' being free from several of its imperfections, and has one great improvement, viz.: the glass in the back of the Hive, which allows the apiarian at all times to observe the operations of the Bees, which is highly important to all who conduct the business upon scientific principles.

"The great feature of this Hive is that it is so constructed, that the Bees are guided in their comb building, so that they are compelled to build their combs in parallel and straight lines, thus avoiding the inequalities and turnings, observed in many Hives where they are not guided in their works. The turnings cause the combs to be of different thicknesses, thus rendering a large part of the cells *unfit for the breeding of young bees*; upon the rapidity of which production in the spring season, depends entirely the success of the family of

bees. This fact has been long known to scientific apiarians, but this plan has but lately been discovered.

"With respect to the productiveness of this Hive in this country, from all the information and experience I am possessed of, the average yield of honey per season is from 10 lbs. to 120 lbs. surplus when the bees are allowed to swarm, say 25 lbs. per hive, per season. They will average about 80 lbs. to 150, if the bees are not allowed to swarm.

"FRANCIS P. SHARP."

Preserved Fish.

"6 Cannisters Preserved Salmon, hermetically sealed, containing 2 lbs. each, price 1s. per lb.

"6 Cannisters Preserved Salmon, hermetically sealed, containing 1 lb. each, 1s. per lb. Quantity of Salmon available, 70,000 lbs.

"6 Cannisters Preserved Lobster, hermetically sealed, containing 1 lb. each, price 10d. per lb. Quantity of Lobster available, 20,000 lbs.

"WM. J. FRASER.

"CHATHAM, 21*st September*, 1852."

"We would wish to call your attention particularly to the manufacture of the Manilla Rope. We have been to some expense in getting up machinery, and the yarn of which the Rope is made, has been spun by girls who have not had more than six months' practice; this season is the first they ever worked at the business. The tarred Hemp Rope was spun and made by young men whom we have had with us, say four years; our foreman is from Liverpool; all the rest of our crew, thirty in number, are hands whom we have instructed in the business. And we feel confident the Rope we have sent you is not inferior to any rope imported. We last week made a rope for E. Allison, Esq., for the Coal Mines, 500 feet long, 7 inches in size, weighing 9 cwt. 2 qrs., from the same lot of yarns as that we have sent to the Exhibition. We name the above to show what we have sent was not spun for the express purpose to send to the Exhibition. The ten per cent. duty on the Manilla, is a protection to us; we shall this year manufacture about forty tons; we have sold at from seventy to eighty pounds per ton. The prices have been in Boston from 14 to 15 cents per pound. We are getting more machinery fitted up, and expect next year to manufacture from 70 to 100 tons.

"You wished us to say something of the quantity of rope imported into this place; we have not yet been able to ascertain that, but shall do so and write to you. There is one thing we are sure of, if two-thirds of the amount of rope imported was made here, it would

employ more than 50 men and boys for the year round; in fact we are sure 200 in number would not manufacture more than the quantity imported; such a business would leave a very large amount of money in the country for labor, which is now sent away, and such a number of hands constantly employed would be the means of employing many others. A duty of five per cent. on Hemp Rope, would in a few years stop the importation, and competition would keep down the price; you may say five per cent. is so small that it would have but little effect on the manufacture, but the business is a heavy one; suppose we manufactured, say 100 tons at fifty pounds per ton, which is about the price, such would leave two hundred and fifty pounds. We shall take the liberty to write to you again some other day.

"Remaining your obedient servants,

"J. & R. JARVIS.

"Dr. J. Robb."

New Brunswick Ships.

Many models of Ships were shown, and in connection therewith, we may reproduce the following communication to a St. John paper:—

"I think that the past year has pretty well shown that our New Brunswick ships are equal, if not superior to any now afloat.

"The shortest passages on record have recently been made by vessels, all built in St. John, N. B., and its vicinity. I will enumerate the latest:—

"Ship Onward, built by Mr. James Smith, made the round voyage from Liverpool to New York, thence to Quebec and back to Liverpool, in 83 days.

"The Eagle, built by Mr. M'Donald, was only 76 days from Australia to Liverpool.

"The Marco Polo, built by Mr. James Smith, was 68 days from Liverpool to Australia, and made the round voyage in 5 months and 21 days.

"The Zetland, owned by Chas. M'Lauchlan, came here from Liverpool in 18 days.

"And the Asia, Capt. Calhoun, has just arrived in Penarth Roads, in 16 days from here.

"The Yankee Clippers are pretty smart, but they have not done better than this yet."

Furs.

The following is a list of articles manufactured and exhibited by Lockhart & Co., St. John. The New Brunswick animal skins are all dressed and prepared by the same firm:—

2 New Brunswick Bear Skin Sleigh Robes, fancy lined.
1 New Brunswick Bear Skin Sleigh Robe, Lynx figure in centre, lined.
1 New Brunswick Bear Skin Sleigh Robe, Wolf figure in centre, lined.
2 New Brunswick Racoon Skin Sleigh Robes.
2 New Brunswick Lynx Skin Sleigh Robes.
1 New Brunswick Rocoon Sleigh Mat, Bear figure in centre, lined.
1 New Brunswick Lynx Sleigh Mat, Bear figure in centre, lined.
1 Pair Gent's Newfoundland Seal Boots, lined fur.
1 Gent's South Sea Seal Vest.
1 New Brunswick Sable Muff.
2 Pair New Brunswick Sable Cuffs.
2 New Brunswick Sable Flat Boas, very good.
1 New Brunswick Sable Queen's pattern Riding Boa.
1 New Brunswick Mink Muff.
1 New Brunswick Mink Queen's pattern Riding Boa.
1 Pair New Brunswick Mink Cuffs.
1 Fitch Flat Boa.
1 Pair Fitch Cuffs.
1 Stone Martin flat Boa.
1 Pair Stone Martin Cuffs.
1 Stone Martin Victorine.
1 Stone Martin Queen's pattern Riding Boa.
1 Siberian Grey Squirrel Queen's pattern Riding Boa.
1 Siberian Grey Squirrel Muff.
1 Pair Siberian Grey Squirrel Cuffs.
1 New Brunswick Otter Skin, plucked.
1 New Brunswick Otter Skin, natural.
2 New Brunswick Sable Skins, dressed.
2 New Brunswick Mink Skins, dressed.
1 New Brunswick Otter Fur Cap, natural.
1 New Brunswick Beaver Fur Cap, plucked.
1 New Brunswick Beaver Fur Cap, plucked and dyed.
1 South Sea Seal Fur Cap.
1 New Brunswick Racoon Fur Cap.
1 New Brunswick Otter Fur Cap, natural, Hungarian Shepherd style.
1 Newfoundland Seal Skin Fur Cap, Canadian pattern.
1 Russian Astrachan Skin Fur Cap, Canadian pattern.
1 Pair New Brunswick Sable Lady's Gloves.
1 Pair black Russian Jennet Gents' Gloves,
1 Pair Newfoundland Seal Gent's Long Gloves.
1 New Brunswick Bear Skin Foot Muff, lined outside with plush.
1 Newfoundland Hair Seal Foot Muff, lined Australian sheep.

1 New Brunswick Fox and California Sheep Foot Muff, lined outside with red Morocco.

1 New Brunswick Fox and California Sheep Foot Muff, lined outside with green Morocco.

1 Scarlet Australian Sheep Foot Muff, lined outside with blue Morocco.

1 Russian Jennet Fur Coat.

1 Newfoundland Seal Fur Coat.

1 North American Buffalo Fur Coat.

1 Gent's Siberian Lamb Skin Riding Boa.

1 Pair Gent's Siberian Lamb Skin Cuffs.

9 assorted Hats.

13 assorted Caps.

A travelling Cap.

Pianos.

"SAINT JOHN, *September 21st*, 1852.

"To the Committee of the Provincial Exhibition.

"GENTLEMEN,—We, the undersigned, intend sending to the Exhibition 2 Pianofortes, value £100.

"One 6⅞ Octaves, Rosewood Semi Cottage, value £35.

"One 6⅞ Octaves, Rosewood, Grand Cabinet, with fret work, double brackets, French front, circular bottom, and truss legs, value £65.

"Both the instruments have the half pedal, and all the latest improvements, and are warranted by us for the term of three years.

"Should the instruments prove unsound within three years from date of purchase, new ones to be given in exchange, free of charge. All Pianos bought of us will be delivered in any part of the Province, free of expense.

"The principal materials used in these instruments are of this country's growth.

"The materials imported, are—Rosewood, the growth of the Brazils, imported from United States. Ivory and Ebony, the produce of Africa, imported from England. Key-Pins, Rest-Pins, Steel and Copper Wire, Lock and Hinges, Damper Wires, Hopper-Pins, Vellum, Felt, and Leather, imported from England. Limetree, imported from England, and Holly from Ireland. The rest are the growth of this Province, and manufactured by ourselves.

"The following are the woods of which the Piano-Fortes are constructed: *Foreign*—Rosewood, Mahogany, Limetree, White Holly, Black Walnut, Whitewood, and Ebony. *Provincial*—Deal, Pine, Butternut, Rock Maple, Yellow Birch, and Basswood.

"We remain, gentlemen, your obedient servants,

"KENNAY & SCRIBNER."

Astronomical Clock.

"FREDERICTON, *January 4th*, 1853.

"SIR,—In compliance with a request that some information would be furnished by the manufacturers of articles that received premiums at the Exhibition held in October, 1852, I have been induced to give a short description of the Astronomical Clock manufactured by me, together with a few remarks on what I consider its superiority over clocks of the common description; by which I mean clocks having the anchor escapement. These clocks, running eight days, generally require a weight of ten or fourteen pounds to keep a pendulum of from three to five pounds in motion, when, with a weight of three pounds on a double cord, I drive my clock with a pendulum that weighs thirteen pounds. In order to accomplish this, I have taken considerable trouble to reduce the friction of the working parts as much as possible by finishing in the best manner. I have also arranged the wheel work in such a manner that there is no unnecessary weight of metal in the moving parts. The fusee, which turns in twelve hours, has a maintaining power-spring that keeps the clock going while it is being wound up. On the back of the fusee wheel is secured a wheel of sixty teeth, which pitches into another of the same number; on the centre of this wheel the hour hand is fitted. By this arrangement I separate the hands from one another; the hour-hand is placed on the right side of the face, the second-hand at the top, and the minute-hand in the centre. By placing the hands in this manner, I get rid of all the friction of running the hand work, which amounts in ordinary clocks to more than the weight that I use would overcome. The second, third, and escape wheels in my clock are gilded, which gives them a clean appearance, and also preserves the oil, if any be used, on the escapement wheel teeth; this is of great importance, for after the oil becomes viscid, the good performance of the clock ceases. The pinions of the third and escape wheels are of the kind called lanthorn pinions. To these I would call particular notice, and would recommend those that wish to have wheel work run smooth, to give them a trial, and they will be surprised at the advantages they possess over the common or leaf pinion, when the proper curve of the wheel teeth is attended to. (See Dennison on Clock and Watch Making.) The pivot holes of the escape wheel are jewelled, also the holes of the arbors that carry the weights which give impulse to the pendulum. The escapement is of that kind called gravity escapement, so named on account of the pendulum being kept in motion by two small weights which are raised alternately by the escape wheel, and allowed to descend resting on the pendulum rod. The mechanism by which this is accomplished, is so complicated as to render it almost impossible for

any but a professed clock-maker to understand it without a drawing. I shall not attempt a description, but would refer those who are anxious to possess a knowledge of it to Dennison's Treatise on Clock and Watch Work, a book of great merit. My reason for selecting this escapement for my clock, was, that it can be kept going with less weight than an anchor escapement. This is one point of its superiority, as, the less weight the less wear there will be on the rubbing parts; this, in an expensively got up clock, is a great object. Another reason why I prefer it, is on account of the uniformity of its vibration, which, when once fixed, cannot, from the nature of the power employed to keep it up, suffer any material change. Now it is well known that it is impossible to make wheels and pinions run perfectly smooth, or transmit the same amount of force to the escapement under every angle that the leaf of the pinion assumes. With regard to the tooth of the wheel that is driving it in the gravity escapement, this would seem to be of little consequence, as the office of the train is merely to raise two small weights which, as I before stated, give impulse to the pendulum. In the anchor escapement the evils of the inequality in wheel work appears by making the pendulum vibrate different arcs, thereby causing them to be performed in different times, according as they are long or short.

"The pendulum of a clock being the part that governs all the rest, should be fitted up with particular care, the spring ought to be about three-fourths of an inch in length, and as thin as it can be made without subjecting it to be broken by the weight of the pendulum ball, which should weigh in eight-day clocks from 12 to 15 lbs. My pendulum is a mercurial compensation for heat and cold; it is composed of a steel rod, at the end of which is attached, by means of a frame, a glass jar filled with mercury to a sufficient height to compensate for the expansion or contraction of the steel rod by a change of temperature in the atmosphere. (For a more particular description, see Reid on Clock and Watch Making, page 357.)

"In order that the clock should perform well, it is absolutely necessary that the pendulum should be well and firmly secured at the point of suspension, the common method of suspending pendulums being from a cock screwed to the back plate of the clock; this should never be done in a good clock. The way in which my pendulum is suspended is altogether different. I have a cast iron seat board to which the clock is firmly secured; immediately behind the clock I have a cast iron frame, shaped like the letter A; the top of this reaches just as high as the top of the plates; from this I suspend my pendulum, by which means I remove all the injurious strain of the works of the clock, and secure a firm support.

"I remain your obedient servant,

"JOHN M'CAUSLAND.

"Dr. J. Robb, Secretary, &c."

Lime.

"St. George, *September 23rd*, 1852.

"Dear Sir,—I send you by the *Creole*, from Eastport, one barrel lime, and a small box of samples of the lime rock, for the Exhibition of the New Brunswick Society, at Fredericton; and perhaps it would be well for me to give you some statistics relative to the quantity of rock and lime manufactured yearly. The quantity of rock, as you are well aware, is inexhaustible. The exports annually range between twelve and fifteen thousand casks. The home consumption is quite small, but gradually increasing. At present there are but three kilns in operation, which is sufficient to supply the demand, but any number of kilns can be erected, should the future demand require them. The consumption of wood for burning is about twelve hundred cords per annum. Hoops—one hundred and twenty thousand; sawed spruce staves—two hundred and twenty-five thousand; and about one hundred thousand feet of pine boards for heading; all of which is procured in the immediate neighbourhood.

"Any other information you may desire, if you will intimate your wishes by letter, shall be complied with cheerfully. With my best wishes for the prosperity of the Society,

"I remain yours, most respectfully,

"BENJ. RANDALL.

"Dr. J. Robb."

We have great pleasure in concluding the foregoing notices of the late Provincial Exhibition with a letter from Mr. Cuming, embodying, as it does, his candid opinion of our agricultural position, as compared with that of other countries:—

"St. John, 10*th May*, 1853.

"Dear Sir,—Having been requested to express an opinion on the merits of the agricultural productions shown at Fredericton in October last, I do so with the more confidence from being able to form a comparison which few else in the Province, I believe, can. For a number of years back I have attended the Shows of the Highland, and Agricultural, and Royal Northern Societies of Scotland, as reporter for a portion of the Scotch agricultural press, and in consequence given an amount of attention to the articles exhibited which casual observers seldom devote. At the time the Fredericton Exhibition was held I was but newly arrived from Scotland, nor had time worn off from my mind the impression of things as I left them there, and I was no less surprised than gratified at the quantity and quality of the grains, roots, and vegetables the building contained.

"The grains (the wheat and oats especially) were in sample, color, and weight, *par excellence*, the best I had ever seen, and showed in a striking light the superiority of climate in which they were grown, as in Scotland or the north of England at the same date but little of the grain would be in a condition even to be threshed.

"The turnips, carrots, beets, and cabbages, were all of them what would have been considered *crack* samples in the best cultivated districts of Scotland, proving both the soil and climate of New Brunswick to be adapted to a much more advanced and profitable system of agriculture than is yet believed in by many of its inhabitants. But besides these and the other articles of which I could judge by comparison with what I had seen at home, the variety of productions that cannot by any means be raised there, struck me most as illustrative of the agricultural resources of the Province, and the course of prosperity which science and industry may yet develop.

"Turning from the vegetable to the animal exhibition, praise must be given less generally, still in some respects there was room both to approve and congratulate. In the pig tribe the show was decidedly good. There was less obesity and over feeding than is generally found on like occasions in Britain, but the points indicating rapid growth and prime quality were fully as well marked as there.

"Of sheep there were a few prime animals, but as a whole there was not the display which might have been expected from a country so well adapted to this kind of stock; for there is slight risk in prophesying that in a few generations sheep rearing and root feeding will be among the most profitable employments of the New Brunswick farmer.

"Of cattle there were a number of very creditable specimens, considering the breeds to which they belonged, and the way in which they are in this country commonly kept; but it seems to me a point open to consideration, if, under existing circumstances, the breeds that have been imported are the best adapted to the wants and character of the country.

"The only portion of the exhibition in which I was seriously disappointed, was that in which, from profession, I felt most interested, and which I had been accustomed to see the farmers where I came from regarding as the right arm of their agricultural strength—I mean the draught horses. Nor was this disappointment caused alone by the inferior quality of this kind of stock on the ground—a matter which I knew could not be all at once helped—but in great measure by the promulgation of a fallacious principle, the reverse of that which, from experience and necessity, it has been found profitable to adopt elsewhere; I allude to the idea of breeding for draught or farming purposes from the blood horse, or hunter, a proceeding good enough if the country were in a position to leave off work, and go a racing

or pleasure jaunting, but which if it wish to acquire a name among the nations for laborious and persevering industry, it should by every means avoid.

"I have alluded to this last topic, at the risk of being thought critical, in order to afford the promoters of the Exhibition and those interested in the Province, in few words, a candid and adequate idea of the judgment which would have been passed upon the different items of their agricultural productions had they been brought together in one of the best cultivated Counties of England or Scotland, instead of New Brunswick, and am, with much respect,

"Yours very truly,

"M. A. CUMING, *V. S.*

"Dr. J. Robb."

MR. CUMING'S LETTER.

The following is the Letter referred to in one of the resolutions passed at the meeting in January :—

"ROBERT JARDINE, Esq.,

"DEAR SIR,—In compliance with your request to furnish a few observations relating to the Veterinary profession, for submission to the St. John Agricultural Society, and as I am as yet but a stranger, comparatively, both to you and to its members, I have taken the liberty of connecting therewith copies of a few testimonials, the originals of which, along with others, you have already seen.

"You will observe that most of them are of an old date, having been procured nearly five years ago, when competing for a situation in a district where the certifying parties were all well known; and I may mention farther, that through their influence the situation was obtained, where I might still have been, had I not wished to see a little more of the world, and to have a wider field of usefulness.

"The Veterinary profession being altogether new in this Province, I may be allowed to mention a few of the aspects in which it may be expected to prove itself useful; and in the first place, I think it necessary to correct an idea that seems common here, namely, that it takes cognizance only of the diseases of the horse. Instead of this, the structure and diseases of cattle, of dogs, and, in short, of all the domestic animals, are comprised in the studies of the Veterinary Surgeon; and you may observe, from some of my certificates, that in one of these classes (viz., *cattle*) I have had considerable experience and opportunity for investigation.

"I may, therefore, at all times be consulted about the diseases of any of the domestic animals, either personally in St. John, or by letter from any part of the Province, when the case is such as to admit of time for correspondence, or to be susceptible of sufficiently accurate description; and in order to meet the wants of those who may have occasion for such advice, I have, with the aid of friends better acquainted with the condition of the Province than myself, made up my tariff of charges on the most reasonable terms, stipulating only that when consulted by letter by parties at a distance, or not known, the consultation fee be enclosed; and that when called from home specially to any particular case, whatever travelling expences are necessarily incurred should be paid, with a reasonable allowance for loss of time.

"It has also been suggested that my services may be made useful

to the different parts of the Province, by visiting occasionally or periodically, (at times to be mutually arranged and previously intimated,) the different local Agricultural Societies, or other centres of population. In any scheme of this kind I shall hold myself entirely at the disposal of the Agricultural Societies or other influential parties in the Province; and any practice done in this way I would charge for at the same rate only as if done at home in St. John, provided those who requested my services out guaranteed my travelling and other necessary expenses, or an amount of practice equal thereto. As the idea of perambulating the Province in this way is to me altogether new, without some stipulation of this kind, I could hardly undertake commencing it, at the risk, it may be, of the loss of home practice, time and expense. Without reference, however, to the above, I purpose, if it be desired, in the season for castrating colts, to make a tour of the Province, for the performance of this operation, regulating my charges as far as possible by the number of cases that offer; and should like to arrange previously about collecting them into parties, here and there, as localities may suit, when they could be operated upon both better and cheaper than if gone to separately.

"Another way in which my profession may be made useful to the owners of animals in the Province, and that connects itself naturally with the idea of visiting from time to time the different parts of it, is the establishing in suitable localities depots for the sale of horse and cattle medicines, in forms prepared to meet the various diseases that most commonly occur, and made up in quantities and with suitable directions for the different kinds of animal. In every country district, and especially in a scattered population like that of New Brunswick, cases are of daily occurrence where the owners of animals have to trust to their own experience and common sense for the treatment of diseases among their stock. In such cases, even although the indications of the disease are the most plain, yet difficulties often exist to know *what* and *how much* to give to fulfil the end desired, and doubts as to the purity and even identity of the articles to be got. Both these doubts and difficulties may be obviated by having within reach a supply of the articles included in the following list, viz:—

For Horses.

"Physic balls, in two sizes, suitable for larger or smaller animals. These made of the best selected aloes, and so combined with aromatics as to counteract the tendency to griping and sickness, are the only safe purgative a horse can get.

"Diuretic, or urine balls. Useful in cases of grease, swelled legs, sheaths, and all diseases connected with plethora.

"Cordial, tonic, or stimulating balls. The best restorative in all cases of debility or weakness of the stomach, especially after physicing

or over hard work. Highly useful in spring and autumn, when horses are shedding their coats, and liable to sweating, faintishness, &c.

"Fever balls. Recommended in inflammation of the lungs, bowels or other internal organs, also in cases of feverishness from severe external injuries, when the horse will not bear purging.

"Colic balls. Suitable for all cases of colic or gripes, where inflammation does not exist.

"Ball for mitigating broken wind or heaves.

"Cough ball. To be given in cases of protracted colds or coughs, where there is a profuse discharge from the nostrils or lungs; also in incipient farcy or glanders.

"Astringent ball, for cases of diarrhœa, dysentery, superpurgation, &c.

"Condition Powders. The best alterative in all cases of unthriftiness of the skin, dryness of hair, and want of appetite and condition.

"Cough Powders. Suitable for chronic coughs, colds and thickness of wind, where there is no profuse discharge from the throat or nostrils.

"Worm powders, with full directions for the extirpation of these parasites.

"Blistering ointment. For severe sprains, spavins, ringbones, splints, &c.

"Healing ointment, for sores; ointment for mange or itch; ointment for chaps, cracks, and other injuries about the feet of horses in the winter.

"Sweating liniment, for strains, windgalls, &c.

"Sweating oil, for coughs, sore throats, influenza, strangles, &c.

For Cattle.

"Purgative powders, in three sizes, for small, medium, and large sized cattle. Suitable in cases of constipation, indigestion, hoven, hide-bound, and all derangements of the stomach, liver and bowels, where physic is indicated. These powders are a combination of saline and vegetable physic, and contain medicines never before used on this side the Atlantic, being only of recent introduction at the Veterinary Colleges. They are the only purgative for cattle yet introduced in Britain that can be depended on for safety and efficiency.

"Tonic powders, for cattle. Highly useful in cases of debility or want of appetite, consequent on severe purging, change of food, over travel, or the like.

"Sweating liniment, for strains in the limbs of cattle—a different composition from the horse liniment.

For Horses or Cattle.

"Powder for making wash for killing vermin.

"Caustic powder, for taking off proud flesh.

" Whitewash powders, for sore backs, shoulders, and wounds and bruises of all kinds.

" Foot-rot powder, for thrushes in the feet of horses, ' foul of the foot' in cattle, and ' foot-rot' in sheep.

" Fever powders, for horses or cattle. Recommended in inflammation of the lungs, bowels, &c., also in cases of severe external injuries, when the patient has had physic given.

" Astringent powder, for purging, diarrhœa and dysentery in cattle and sheep.

" Each of these preparations is accompanied with plain printed directions as to the kind of cases in which it is applicable, and the mode in which it is to be used; and the whole are made up on formulæ tested by my own experience; and by selecting the drugs of the best quality, and making them up in quantities, I cannot only with confidence recommend them for their efficiency, but can sell them at as cheap a rate as preparations of a far inferior kind are sold. The extent to which quack horse medicines are sold, however valueless they may be, and however absurd their pretensions, shows the nature of the wants of the country; and the evils which are inflicted in this way can only, I fancy, be met by supplying the public with genuine articles, having no ridiculous pretensions to cure all diseases, but every one of which is simply and truly what it is represented to be. Should my endeavors to meet the wants of the community in this way be accepted, I shall be glad to send samples of the medicines, with list of prices, and all other information to any parties who may be recommended as suitable agents by the St. John or other Agricultural Societies.

" It was also suggested to me in correspondence, previous to coming here, that I would likely be asked on my arrival, by young men natives of the Province, for instruction in the Veterinary Art; but however desirable such might be for the more populous and distant parts of the Province, I have as yet heard nothing further on the subject. I may, therefore, be allowed to mention the means that were adopted by those interested in the matter for a diffusion of veterinary knowledge in Scotland, at a time when the art was as new there as it is now here—say thirty years back.

" The Highland and Agricultural Society of Scotland established the Veterinary College of Edinburgh, by giving its patronage to Professor Dick, and by granting him annually a small sum as rent for *class* and *dissecting rooms*, and for *hospital medicines*, so as to enable him to treat *gratis* the horses and other animals of the poor. By these means an extensive in-door practice was raised, and numerous interesting and a wide variety of general cases came under the notice both of the Professor and students that otherwise would never have

been seen. But all these would have taken a long time to diffuse through the land veterinary knowledge and sound principles in the treatment of animals to the extent that they now exist, had the subject not been taken up by the local Agricultural Societies and leading gentlemen of the country. Many of these, (the Agricultural Societies,) and sometimes spirited proprietors, on their own account, sent up young men to the Veterinary College, paying more or less of the cost as they could agree, and promising their patronage and employment on their return, conditioning only that they should give their services in the district that had contributed to their instruction. By this means the usefulness of the profession soon came to be found out, and long since all such adventitious aid has ceased to be needed, and there are now as many young men studying for the profession as the wants of the country require.

"Should the Agricultural Societies of New Brunswick at any time entertain a wish to follow in the same track, I shall show both my will and ability to aid them by my earnest endeavors to make the proceeding successful; as an encouragement, I may mention that in Scotland, within the last thirty years, the loss of animals by disease has decreased by one-half; not so much in consequence of more cures being effected—although that has had a certain share—as from the dissemination of more knowledge, and better systems in the rearing and general management of their stock, many diseases having through this means altogether disappeared.

"The only other mode that I shall mention in which the experience of the veterinarian is made extensively available at home, and which does not seem to be appreciated here, is in examining horses for sale or purchase. Most people who have had to sell or buy horses know how much their value is enhanced when they are 'warranted sound;' and in England, when a man has a horse to sell, however sound he may think him, it is seldom that he cares to take the responsibility of warranting on himself, when, for the matter of half a sovereign, he can have the more satisfactory evidence of a veterinary examination and certificate; and, on the other hand, if a horse is to be bought, if the seller is not prepared to give the fullest satisfaction, the buyer generally has recourse to veterinary opinion as to his qualifications and capabilities, in preference to any other. During the short time I have been in this country, I have not, of course, had time to see much of the way in which horses are bought and sold; but in the little that I have seen, the amount of *jockeying* carried on seems excessive, in proportion to the real business done. This tendency to 'smartness' in horse-dealing affairs would be materially kept in check, at it is at home, by the intervention between the parties of a *thirdsman*, no way interested in the price, but speaking only to the soundness and qualifications of the article to be sold. Time, however,

and experience of its usefulness, can alone introduce this element extensively in these transactions.

"I am, your obedient servant,

"M. A. CUMING.

"St. John, *November* 24, 1852."

Copy of Testimonials.

(From Professor Dick, *of the Veterinary College, Edinburgh.)*

I certify that Mari A. Cuming attended here the usual course of study, and obtained his diploma, also two medals out of three which were given to the students of his year. And from his unremitting attention to his studies, and the knowledge of his profession which he acquired, as well as his uniform good conduct and steadiness, I have no hesitation in fully and strongly recommending him to any society or gentlemen who may have occasion for his services as a Veterinary Surgeon.

WILLIAM DICK.

Edinburgh, Vet. College, 27th January, 1848.

(From Mr. Barlow, *Demonstrator of Anatomy, and Lecturer on Diseases of Cattle, Veterinary College, Edinburgh.*

I certify that during the time Mr. M. A. Cuming was attending my class on Veterinary Anatomy, he was distinguished for great diligence, and for the highly satisfactory progress which he made in his studies.

Mr. Cuming paid particular attention to the diseases of cattle during his stay here; and since he obtained his diploma, he has written several articles on this branch of veterinary practice, which confer on him great credit, as regards his knowledge of the structure and diseases of these animals.

JOHN BARLOW.

Edinburgh, Vet. College, 27th January, 1848.

(From D. Wilson, *Fellow of the Royal Society, and Lecturer on Chemistry, Edinburgh.)*

I hereby certify that Mr. Mari A. Cuming was for two years a pupil of the Chemistry Class taught by me, in connection with the Edinburgh Veterinary College. During that period, Mr. Cuming assisted me in examining the class, and displayed great knowledge of

chemistry, and much sagacity in speculating on its laws, as well as in applying these to the explanation of physiological and pathological phenomena. I also derived much help from Mr. Cuming's occasional labors along with me in conducting experiments and prosecuting researches, and had many opportunities of observing his originality of mind, patience, perseverance and accuracy.

Mr. Cuming was also the author of several essays on the relation of chemistry to different important questions of physiology and pathology, which were characterised by great clearness, precision and extent of knowledge.

Altogether it has not often been my lot to meet with one who made a greater impression on me than Mr. Cuming did as to sagacity, capacity, and amount of information. He is the most accomplished veterinarian student whom I ever met with, and likely greatly to distinguish himself.

GEORGE WILSON.

24, Brown Square, Edinburgh, April 20th, 1847.

(From the Veterinary Medical Society of Edinburgh.)

MR. CUMING,

SIR,—I am requested by the Members of the Veterinary Medical Society to convey to you their sincere thanks for the excellent and valuable paper you were so kind as to send them, on "Poisoning by Lead," so full of practical information and scientific research, which confers great honor on the Society, in having such a distinguished member.

I am, sir, your most obedient servant,

CHAS. S. ROMANIS, *Secretary.*

Edinburgh, March 9th, 1847.

(From JOSEPH TAIT, *Esq., Veterinary Surgeon to the Banffshire Farmers' Club.)*

I hereby testify that I have met the bearer, Mr. Cuming, on several occasions, in way of our business, and always found him very expert in every operation. I consider him a very clever Veterinarian, and will, I am convinced, give every satisfaction to any person who may require his services in the Veterinary art.

Portsoy, 28th January, 1848. JOSEPH TAIT.

(From Mr. M'GILLAVRAY, *Veterinary Surgeon, Huntly.)*

The bearer, Mr. M. A. Cuming, Veterinary Surgeon, Banff, has been personally known to me ever since the commencement of his

professional life. I have much pleasure in testifying that I always considered his natural talents to be of a very high order; and his professional acquirements are such as might be expected to result from the above circumstance, combined with his indomitable perseverance, when engaged in the study of the theory and practice of the Veterinary art.

And not only do I consider his professional abilities of high standing, but as a *man* I have uniformly found him possessed of that strictness of principle and uprightness of conduct which never fails to commend the respect and esteem of all whose good opinion is worth having. Mr. Cuming is a person eminently qualified to fill the situation of Veterinary Surgeon in any place where such services are required.

JAMES M'GILLAVRAY.

Huntly, January 28th, 1848.

(From Alexander L. Emslie, *Physician and Surgeon, Banff.)*

My Dear Sir,—I have received your note, in which you mention the possibility of your soon leaving this district. I can candidly assure you that I shall very deeply regret your loss. I have had so many opportunities of witnessing your knowledge of your profession, and of various sciences connected with it, as chemistry and natural history, that I despair of finding one to succeed you, you will be able to fill up the void which your removal will create. I do not hesitate to congratulate the inhabitants of the district which may be the field of your future labors, and beg to say, that if any recommendation of mine can be of any avail to you, you are at liberty to address me at any time, when I shall be extremely happy to confirm what I now state.

I remain, my dear sir, yours truly,

A. L. EMSLIE, M. D.

Banff, 28th January, 1848.

(From Patrick Panton, *Surgeon and Farmer.)*

It affords me much pleasure to give my testimony in favor of Mr. M. A. Cuming, V. S., a person in whom I have every confidence, by committing my cattle and horses, under any disease that may attack them, to his treatment and care. From what I have seen him prescribe, I feel aware he has with the greatest attention and zeal, properly studied his profession. As an operator, his sound knowledge of anatomy will never fail him in performing whatever may come under his charge to the satisfaction of any one competent to scrutinize.

PATRICK PANTON.

Knockiemill, Turriff, February 4th, 1848.

(From James Reid, *Esq., Physician and Surgeon, Ellon.)*

These certify that I have known Mr. Cuming for a period of three years, and that from all I have seen of him I believe him to be a man of good character and good abilities, very well informed in his profession, and very successful in his treatment. His manners are mild and gentlemanly, and I doubt not his whole conduct and character will give satisfaction in the discharge of his duties, in whatever quarter of the globe Providence may be pleased to cast his lot. Given at Ellon, this 7th day of August, 1852.

JAMES REID.

(From parties residing in the neighborhood of Ellon.)

Mari A. Cuming, V. S., has for the last four years practised in the Ellon district with great success. He is a steady, honest, and strictly sober man, and considered one of the best Veterinary Surgeons in Scotland.

JAMES BLACK, *Factor on the Ellon Estates.*
ALEX. MILNE, *Farmer, Mains of Esslemont.*
WM. MILNE, *Farmer, Mains of Waterton.*

Ellon, 6th August, 1852.

CIRCULAR.

The subjoined CIRCULAR *has been recently published and disseminated generally throughout the Province.*—J. R.

"FREDERICTON, *30th May*, 1853.

"SIR,—The Legislature having granted £200 to each of the County Agricultural Societies on condition of £50 more being subscribed for the importation of improved breeding horses, it is to be hoped that the Societies will not allow the matter to sleep without making some exertion towards working out the objects of the grant. The fact that New Brunswick, with all her meadows and pastures, does not produce horses enough, nor of sufficient quality, for her own use, without sending to the neighboring Provinces for the best ones, ought to be sufficient inducement to improvement, without adverting to her proximity to the States as a profitable outlet for extra stock if they could be raised, or the increased demand certain to follow in the track of railways.

"The chief points in which improvement is needed are weight and substance. Take them as a whole the horses of New Brunswick are far too light for many of the purposes for which they are required, and even for such work as they are weight for, they want substance to enable them to go through it unhurt. The lumberman, the wagoner, the ship-builder, and even the farmer who would cultivate his farm deeply and thoroughly, can all of them bear testimony to the difficulty of getting horses sufficiently heavy, while the number of crippled and used up animals everywhere betoken the want of bone and substance needful to sustain the exertions they are called upon and otherwise willing to undergo. The Canadian and Vermont horses have both of them been spoken of as likely sources from which to improve those of New Brunswick, and both have numerous points about them to admire; their form and proportions indicating what experience proves them to be possessed of, namely, activity and endurance; but both are objectionable for want of weight. Take them by themselves (even the best and heaviest of them) they would be too light for a number of the purposes needed in this Province, and, coupled with its still lighter mares, and the deteriorating treatment to which many of the colts are likely to be subjected, no great permanent improvement could be expected from their introduction among us.

"The only two British breeds, combining the necessary additional strength and weight which New Brunswick would need, without

diminution of endurance and activity, are the English Suffolk and the Scotch Clydesdale, and, in any combined scheme of selection for the good of the Province it would be advisable to have part of both. The Suffolk Punch is the Canadian horse, made in a larger mould, the average weight of the breed being nearly as one and a half to one. He can walk in the plough or on the road four miles an hour, is gentle, good constitutioned, and his truthfulness at a dead pull is proverbial the kingdom over. The Clydesdale horse has more of the proportions of the Vermont horse, but will be nearly twice the weight. He has great power, courage, and endurance, and is hardy and easy to keep. The Suffolk breed is of the two, the most uniform, and is found in greatest perfection in the midland counties along the east coast of England. The Clydesdale is now to be found in all parts of Scotland and in the north of England, and is the kind chiefly used for farming and draught. In consequence of greater variety of location the breed is less uniform than the Suffolk, the size and weight varying with the situation in which the individuals are propagated. The heavier kinds are to be found in Clydesdale itself, the Lothians, parts of Fifeshire, the Carse, and the lower parts of Aberdeenshire. The lighter and hardier specimens in most of the Border counties, the upper part of Perth and Aberdeen shires, and along the whole of Banff and Moray.

"In selecting from either of these breeds it would not be advisable to make choice of the largest specimens, as such are less likely to be of pure blood than those of more moderate size, the desire to increase the weight sometimes tempting the breeder to cross in a heavier male or female of inferior quality, trusting to breeding back again to the original stock for keeping the form right with an addition of size. Neither would it be prudent, though such were met with, to select the exact stamp of horse that is wished to be re-produced, as the deteriorating and diminishing effect of the class of mares to be used has to be also considered, and it is the medium animal likely to result from the union of two, that is the standard from which to calculate back in making a choice. Neither would it be wise to take any horse unless of very superior promise, but such as had given proof of his capabilities by the number and quality of his stock. There is no rule of selection equal to this, although it is one involving trouble and acquaintance with the ways of the country to work it out.

"The probable cost of good, not over large, animals of either of these breeds, would be somewhere about £150 Sterling; if prize specimens at any of the principal agricultural shows, likely the amount of the prizes in addition, as these are forfeited when the winner leaves the district. The best time to select, in fact the only time when a *number* could be selected, is the last half of July and month of August, as then the County, District, and General Shows, are held; and these being previously known, a person acquainted with

the country, by arranging his track so as to take in the greatest number of these, would have more opportunities of seeing and comparing than he could have again by running after individual animals till that time twelvemonth.

"The sum of £200 currency, even augmented by £50 subscribed, would fall considerably short of meeting the charges incurred by any individual county in sending an agent to purchase, with the additional cost of freight and other items; but, should any of the societies wish to go into the scheme alone, means will be found of putting them in communication with parties in England or Scotland, for whose confidence and fidelity in selecting, a guarantee can be given. The safer way, however, would be for a few of the counties to join, when a small amount from the funds of each, would admit of an agent, knowing the exact thing needed, and acquainted with the Scotch and English markets and breeds of horses, going over to make the selection, and coming back in personal attendance on the animals bought. An agent thus specially appointed, and knowing that he was liable every day to be confronted with his purchases, would have a care and responsibility on him in selecting that would not be felt by even the most trustworthy person who was to part with them on the other side of the Atlantic.

"If, on consideration of the foregoing details, it should be determined to co-operate in the way above suggested, it might be found possible to secure the services of Mr. Cuming, Veterinary Sugeon, St. John, for the undertaking. In this way, we have no doubt, the busines would be well done; and the greatest benefit secured at the lowest rate to the country. Mr. Cuming, from whom we have derived most of the information in connection with this subject, considers that the agent for England should be at work no later than the end of July, and consequently an early decision on the subject is most desirable.

"Should circumstances make it impossible to go thus favorably into the English market, the same mode of conjoint action on the part of the New Brunswick Agricultural Societies would apply to an agency in the United States or Canada.

"The foregoing considerations are earnestly pressed upon the attention of the officers and members of agricultural societies and farmers in general, and the favor of a reply is respecfully requested by

"Sir,

"Your very faithful servant,

"J. ROBB,

"*Secretary New Brunswick Society.*"

ABSTRACT

Of Proceedings at Quarterly Meeting in April, 1853.

The following are the speeches delivered at the meeting of the New Brunswick Society, held at Fredericton, April 6, 1853;—Mr. Justice Street, President, in the Chair.

The President in introducing the objects of the meeting, spoke as follows:—

The present is to be understood as not only the ordinary April quarterly meeting of our Society, but also as the general meeting appointed by our constitution to be held during the sitting of the Legislature. The latter is its more important character, and the one in which we are chiefly anxious it should be regarded. The policy of our constitution in the appointment of this meeting is two fold, viz:—to afford us the advice and counsel of influential friends and members from distant localities who rarely visit Fredericton except in the discharge of their Legislative duties, and to inform the general mind of the Province of the progress, transactions, position, and purposes of the Society. It is therefore to be considered rather a Provincial than a local meeting, and we trust the doings of the Society through the past year will be received as satisfactory evidence of its value, and clearly exhibit its claims on the legislative bounty.

The third general report of this Society was published in August 1852, and brings down its proceedings to the April preceding. The report has been very widely circulated and read, and I have reason to believe well received. It contains some very valuable information in essays, and reports of sub-committees, on subjects of great interest and value to all who are engaged or interested in Provincial agriculture, manufactures, or commerce. Our prize list was published shortly after the Exhibition, and within the last few days a portion of our fourth general report has been issued, and is now in the hands of the members of the Legislature and of others who take concern in the welfare of the Society. Although incomplete as yet, the portion of this report which has been published will be found very interesting. It contains a full account of our Exhibition in October last, and of all matters connected with it; some very interesting correspondence respecting the Exhibitions in preparation at Dublin and New York, and the proceedings taken by this Society to procure a Provincial representation at both these Shows. The balance in the hands of our Treasurer in January last somewhat exceeds £300, but this amount was subject to be reduced by outstanding claims, in all

amounting to nearly £200, so that the net amount left in hand, after all the expences of the Exhibition and the Society have been discharged, a little exceeds £100. It affords me great pleasure to be enabled to make this statement because a very different result was at one time apprehended, and it must be confessed that a very different and much less agreeable result would have occurred if it had not been for the great attractions and the amazing success of our Exhibition. But while we have reason for gratitude and encouragement in the fact that this great experiment has not entirely exhausted our exchequer, it has become evident that the expences of such Exhibitions are too great to permit them to be repeated more frequently than once in three years.

The sub-committee appointed to make arrangements for the representation of the Province at Dublin and New York, have addressed circulars to all parts of the Province requiring specimens for show, and though many of these are yet unanswered, we have reason to believe a creditable exhibition of Provincial grains will at any rate be procured. The Government have acted toward us in this matter with great liberality and promptitude. Immediately on the requisition of the Society it contributed £250 from the public funds towards the expences of these preparations, leaving it to the Legislature to make further and more competent provision.

It is worthy of our consideration to-night whether the Irish Show is not the one at which it is most important to our interests to be well represented. It is from Ireland we must expect to draw our most desirable and valuable element of industrial success—human labor—and perhaps no one thing would more certainly lead to the sort of emigration we so much desire than to establish for our country a favorable agricultural character at the great Dublin Exhibition. We have nothing to fear in offering samples of our grains. Richibucto has given us wheat weighing 67 lbs. to the bushel; half cleaned oats were put on show at our own Exhibition which weighed as they were 49 lbs., and when properly cleaned up 52 to 53. Lists of Provincial materials and products suited to these Shows have been published by our Society. Space has been allotted to us both at Dublin and New York, and it is to be hoped that the farmers and mechanics of New Brunswick will aid us in our exertions to secure a reputation for our country in the capitals of Ireland and the United States.

(The learned President then entered into some explanations of the proceedings of the Society in relation to weights and measures, a digest of the County agricultural societies reports in this Society's annual general reports; Dr. Cuming, Veterinary Surgeon, and other objects fully detailed in the report.)

Hon. A. E. Botsford in moving 1st resolution, said:—

Mr. President,—I have always taken a deep interest in the success of this Society, and as I can at best only regard myself as an honorary

member, I suppose I may speak in its praise without indelicacy. I have long been impressed with a sense of its value to the best interests of our country, I have watched its proceedings with close attention, and am bound to admit that I yield it the tribute of my heartiest approbation, and acknowledge the obligations of the Province for its patriotic exertions and success. Sir, it deserves a unanimous expression of Provincial gratitude; the information it has diffused has been invaluable; I have witnessed the beneficial effects in my own section of the Province, and am authorised to speak with confidence of the benefit and gratitude of the farmers of Westmorland.

Some years ago, sir, our situation was a very painful and humiliating one, the repeated failures of the potato and other crops, the commercial embarrassments and bankruptcies which became so general, disheartened our people; poverty and even want became more frequent and distressing in the poor and remote districts than many are aware of to this day. The impression was spreading rapidly that the far west was an easier and more favorable country for the working man, and the man of enterprise; distrust became almost universal in the capabilities of our soil and country to return an adequate reward to industry, and many, very many, of our hardy and once hopeful Provincial yeomanry turned their backs upon us, and sought a better fortune in a foreign land. Sir, I allude to these circumstances to justify and give weight to the cheering sentiment of the resolution I am to offer you; *times have indeed improved since then;* good crops have been restored to us, our fields have renewed their fertility, our barns have been filled with the rich abundance of our harvests, the commerce of the world has been improved, and we have participated in the benefits. Increased knowledge of the real resources of our Province has enlarged public confidence. Many of those who left us found disappointment rather than success, and some of them have gladly returned and said so—content once again to take the chances of Provincial life. Members of the Legislature, magistrates, and men of intelligence and influence generally, in the different districts have turned their attention to the resources of our own soil, and disseminated more correct and encouraging information of its true character. Complaints have been made of the severity of our winters, but, sir, if these are cold they inspire men with vigor, and stimulate them to healthy and profitable exertion. Southern climates enervate man physically and intellectually, and deprive him both of the inclination and ability to work. I hold it to be one of the most fortunate circumstances connected with our position that our climate forces us to be industrious. It is, sir, the hardy sons of northern climates who have given impulse to the enterprise of the world.

The native productions of our country compare favorably with those of the United States and England. We have nothing to fear in a

comparison of soils, of coal fields, of timbers, or of fish. In fact nature has given us one of the most highly favored countries on the face of the earth.

The Exhibition of last October, for which all praise is due to the exertions of this Society, has tended greatly to strengthen our confidence in our people and country, and has attracted the attention and admiration of our colonial and republican neighbours. The county agricultural societies throughout the Province have not in all cases dealt justly by the liberality of the Legislature, still many of them have encouraged the introduction of improved systems of cultivation, and the employment of improved implements. I have long thought that a general combination, such as is found in this Society, would be of immense advantage. United effort seems essential to any considerable success in all pursuits, and scientific instruction is one of the prime necessities to the farmers of this age.

With these observations, sir, I beg to propose the resolution, and shall only add in conclusion, that when we obtain a fair admission to the markets of the United States (which is the only stimulus we require,) the rapidity of our progress will surprise the most sanguine, and produce a degree of success for which we are scarcely prepared.

The hon. gentleman then moved the 1st resolution.

Resolved, That this meeting rejoices at the manifest change of the public mind, on all hands, evinced in favor of the natural capabilities and advantages of this Province.

D. S. Kerr, Esq., said, I rise to second the resolution proposed by my honorable friend, Mr. Botsford, and trust I shall be permitted to occupy a little of your time in glancing at the history and achievements of our Society.

It may not be known to all the gentlemen present that the New Brunswick Society was not even organized till the year 1849, and did not commence its operations until 1850. In those years, sir, the habit was all but universal to cry down our Province and people. The disposition to emigrate was showing itself in every district; our best men were leaving by scores. One of the very first efforts of the Society was to array itself against this unpatriotic system of self depreciation, and with what success is told in the great and beneficial changes which have since occurred, for it will not and it cannot be denied that a large share of influence in the production of these good effects is to be credited to the labors and publications of this Society. Among the evidences of an improved feeling of confidence in the country, I may mention that the grants in the Crown Land Office last year were greater by thirty or forty per cent. than they were in 1848 and 1849. A settlement and home is now becoming an object of ambition to our young men, who, a few short years ago, cast

longing eyes across the border. Our country is well entitled to confidence and praise. We had wheat sent up to the Exhibition in October, weighing 68 lbs. to the bushel, and this, sir, was no solitary instance of a single sample. Five samples weighed 67 lbs. each, and of thirty samples sent, the lightest weighed over 64 lbs. The jury who sat upon this grain declare it could not be surpassed in the world, and that they were right is easily demonstrated, by a reference to the weight of wheat put on show at the World's Exhibition in London. Some of our oats weighed 53 lbs., and the average weight of this grain was over 50 lbs. Our flour was pronounced superior to the Gennessee. Competent judges from Britain and the United States declared our roots and vegetables to be the finest they had ever seen.

Sir, the effects of this Exhibition has been to change the mind of the country, it has given us a new heart, and inspired courage in us to go to work hopefully, to make New Brunswick the happy and prosperous home of ourselves and families. The country has been demonstrated to be a good country, all we want is will and energy in the people. Before I conclude, Mr. President, I must avail myself of the occasion to express my personal gratitude to you, for the zeal and perseverance with which you devoted yourself for many months in the preparations for that great Exhibition, which in the end produced such glorious results. I beg to second the resolution.

The resolution was then put and carried unanimously.

The Hon. J. Brown, M. L. C., in moving the second resolution, spoke as follows:—

Mr. President,—It is my duty to speak to this resolution, yet I hardly know what I can add to that, which has been so well and so truly said by the gentlemen who have preceded me. I am bound to support them in all they have said respecting the effects of the disasters and depressions of 1848 and 1849. Men's hearts failed them, and many very many deserted us; it is a wonder how we bore up against it at all, Mr. President, and we would not if it had not been for the support of our farmers, and perhaps they would not have supported us, only it was impossible for them to desert. In our extremity we sent for Professor Johnston, he made a reconnoisance of the Province and reported favorably, yet the country said he was sent for to deceive us and the world. His whole report was denounced as a fabrication. Though I travelled with the Professor, I confess I myself could scarcely credit the flattering results obtained by him, until the great Exhibition of last year, congregated all the products of the different portions of the Province, and distanced the eulogies of the Professor. No man could distrust the demonstration of that show.

I came up to the show, sir, with my little tribute of a half bushel

of wheat. I came with many hopes and not without some apprehensions, but, sir, I came wholly unprepared for the 16000 people I met in your city; for the rich and varied array of such magnificent agricultural productions; the specimens of mechanical skill so honorable to Provincial ingenuity, and I came, sir, unprepared to find so many people with so much to make them proud and happy, and unprepared to find my week in Fredericton, as I confess with joy, I did find it the proudest and happiest of my life.

Sir, it is a proud position to be enabled to boast justly that we can beat the world in wheat. The northern districts of the Province would amaze those who have not visited them; they amazed me. Our whole country is almost a wilderness even yet, we want more people, more able bodied men to work it. It is not my purpose to suggest any emigration scheme, but I content myself with the remark, we want small capitalist farmers, and we want farm laborers. The task of converting the forest into a farm is not very hard work, Mr. President, and I know all about it and have gone through it all. I cut and piled and burned the trees upon the land, which gave me a right to vote, and afterwards qualified me to sit as a member of the Assembly. All it wants, sir, is a good axe and a good will, the crop is soon got in, and the harvest, though plentiful, is not difficult; no manure is wanted for the rich virgin soil, a strong hand and a stout heart are your only requisites. The man who is discontented here must look for the cause in himself, not in the country; labor is no curse, so far from it, sir, it is a great blessing; the curse is on him who has nothing to do. I don't like, I confess, to be over wrought, but just enough is pleasant and profitable. A life of industry is a life of pleasure, for with us a farmer may easily find time to read and to play, as well as to work, and the rude independence he enjoys is just the most valuable element of the truest happiness. California and Australia have nothing to compare with it. Then, sir, we can get *up* as well as *on* in the world in New Brunswick as readily as any where else, as I have learned in my own experience, and I have come up in this country from the very lowest condition to almost the highest—

"Bliss is the same in subject as in king."

Hon. Mr. Brown then moved the second resolution.

Resolved, That this society regards such favorable change of sentiment of vast value, towards the elevation and advancement of this country, as eminently tending to improve its character, and to introduce emigration and capital from abroad, to stimulate public and private efforts, and promote contentment and happiness at home.

Hon. Mr. HAMILTON.—I was present, Mr. President, at the annual meeting of your Society in February, 1852, when it was resolved to

ask the Legislature for £500, in aid of the proposed exhibition. Although I seconded the resolution for that application, I confess my faith was not over strong, and that I did so with many doubts. You may well imagine, sir, from these circumstances that I looked to the results with great anxiety, and felt that no small portion of responsibility rested upon myself, and you will be able to fancy with what delight I hailed the joyful information, that in spite of fears and discouragements the great Provincial Exhibition had been attended with the most signal and complete success. I have no hesitation, sir, in declaring my conviction, that the Exhibition in its effects will prove of more importance to the real progress of New Brunswick, than any other event which has occurred since the first white man landed on its shores. I beg to second the resolution.

George L. Hatheway, Esq., M. P. P.—Mr. President, I have been for many years extensively engaged in the lumbering business, indeed, until I had all but made myself a bankrupt. I am now a practical farmer, and am enabled from my own experience to state, that the business of the agriculturist is profitable in New Brunswick. New lands, sir, can be cleared for £4 an acre, sixty bushels of oats will pay all the cost of clearing, and the straw will cover the expence of growing and harvesting. I received for my oats the present winter three shillings and sixpence per bushel at my own house in cash, and, with the average prices of farm produce, I am satisfied that hired labor at £2 10s. or even £3 a month will prove remunerative in farming operations, if it is judiciously expended. I was present, sir, at the great Agricultural Show and Fair at Albany two years ago, and although Canada was largely represented there, it did not begin to compare with ours of last October. Sir, our Exhibition and its great success has stimulated the farmers of our country to go on with new heart and hope. The resources of New Brunswick are equal to those of any other country in the world, and they only want to be made known to draw in a valuable immigration.

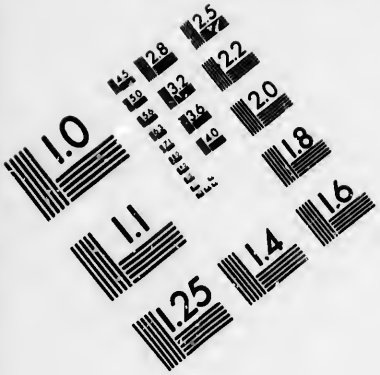
Resolution passed unanimously.

Hon. Mr. Wark.—So much has been said, and so well said, Mr. President, on the general aims and progress of your society, that I may well be spared any further remark on these heads. I have perused your reports and papers with great satisfaction and instruction, men of science and practical men have employed themselves upon them in a way which entitles both to the gratitude of all who are interested in the well being of our country. Sir, I cannot confess to any lack of faith at any time in the fruits of our Exhibition. I always anticipated great and valuable results, and must own in your hands it has been made to fulfil my fondest expectations. The effects of local shows had taught me a confident belief in the advantages of this larger effort; I left home for the show with high expectations, and

before I got to Fredericton I received very gratifying intelligence of your preparations, and the extent and character of the contributions that were coming forward, but sir, as was the case with the "wisdom and prosperity" of Solomon, I was compelled when I arrived here to admit with the Queen of Sheba, "the half had not been told me." The specimens of mechanical art put on show were very honorable to the skill and ingenuity of our mechanics, but the agricultural productions constituted the great attraction of the Exhibition, and I am sure whether in quality or variety, these could not be surpassed, if equalled, in the world. All the arrangements for the Exhibition were planned and executed with admirable tact, affording every desirable convenience to those who came to show as well as those who came to see. These arrangements entitle yourself, Mr. President, pue the officers of your Society to the public gratitude, and, sir, I must couple in this praise all the people of your city for their considerate and liberal hospitality to visitors during the week of the Exhibition.

Sir, I quite agree in the opinion that we ought to be advantageously represented at the Shows in New York and Dublin. The favorable opinion of the Irish people is especially important to us, because it is to them we must continue to look for our chief supply of immigrant labor and settlers. This supply of foreign labor is essential to our progress, but I would not, Mr. President, be understood to advocate any great scheme of immigration. I do not like the idea of such a scheme, because I do not think it suited to the circumstances of the country. I have always thought, and still think, that a gradual and continuous flow of healthy and thrifty immigrants is better for us than any sudden influx of great numbers.

I am of opinion, sir, that a powerful engine to promote the objects of your Society would be found in an agricultural seminary and model farm. I visited such an institution in my late visit to Ireland, and examined it with great curiosity and satisfaction. In the course of the preceding year, I learned it had turned out seven hundred and thirty-four students. Some of them had become editors of agricultural newspapers and magazines, some masters of agricultural schools, some gardeners, farm agents, stewards, &c,—three hundred and two of them were cultivating their own or their father's farms, and only thirty-one of the seven hundred and thirty-five had gone out of agricultural pursuits. I was very much interested to ascertain the course of studies pursued, and made many inquiries on the subject. I found that to all the branches of a superior English education were superadded Botany, Agricultural Chemistry, practical farming, and early rising. The students were taught to work as well as to think, the hand was instructed as well as the head. The advantages of such an institution in a farming country are scarcely to be over estimated;



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it is calculated to impart as much in a few hours as a man would acquire from his own experience in the course of years—on such subjects as those of drainage, manures, food of animals, character and requirements of soils, modes of farming, the best and most economical farm implements, on these and similar subjects all that is known to science, all that has been learned by the practical agriculturist is condensed into familiar lectures, and illustrated by experiment and practice. I fear, sir, I should fail to make this subject interesting if I were to discuss it further now, but I shall be happy to communicate all the information I possess upon it to the Society if it is thought desirable. I think the subject one of great importance, and well worthy of the deliberate and favorable consideration of your Society and that of the Legislature. I am satisfied that the expenditure of a portion of our public monies in the foundation and support of such an institution in this Province would be productive of very great and very general advantage.

Hon. Mr. Wark then moved the 3d resolution.

Resolved, That while this Society has great cause for rejoicing at the success of its efforts towards improving the condition of this country—by the approbation expressed of its reports and proceedings —by the result of the late Exhibition and otherwise—it has every reason to press forward with continued and increased exertions for the more extensive accomplishment of its object, and the extending of good into every part of the Province.

Bliss Botsford, Esq., M. P. P.—I rise, Mr. President, to second this resolution, and I do so with unaffected pleasure. I shall be very brief, sir, in any remarks which I may offer, because the evening is already far advanced and the subject before us has been very ably treated. The objects of your society, Mr. President, are so important that they cannot be indifferent to any native of New Brunswick; they are so interesting as to make it difficult to be silent when they are discussed.

Two years since, sir, I took the liberty to draw the attention of the society to the great though undeveloped capabilities of our country, and I then recommended that the Society should issue plain and practical reports on the resources of the Province. Since then, sir, you have freely circulated such reports, and I am proud of the privilege to stand here and give my testimony to the great advantages which our farmers have derived from their perusal, and to express my conviction that they are to be included among the principal causes of your Society's great success. These reports and essays have spirited our people to more ambitious and systematic farming, they have led to the preparation of composts where these had been before unknown, and induced more attention in the selection of seeds and in many ways improved our husbandry by informing our husbandmen.

Mr. D. S. Kerr is entitled to great praise for the exertions he has made in behalf of the objects of the Society, and in the diffusion of invaluable information in connection with these objects in his visits to the different counties. All classes are now awaking to an interest in the promotion of the great ends which this Society has in view. The bench, the bar, the pulpit, and the university send their foremost men to aid us, all ranks and classes are engaging in the good work with good will. The Legislature is ready with renewed assistance from the treasury, and ultimate success is sure. I beg to second the resolution.

George Kerr, Esq., M. P. P.—I must express my full concurrence in the justice of the remarks which has been made as to the importance of an agricultural seminary, and am satisfied the establishment of such an institution would not only be attended with immediate benefit to the farmers of our own day, but would tell most importantly on the character and fortunes of future generations. In the mean time practical lectures by practical men pointing the attention of our agriculturists to the defects of the systems now pursued, and awaking in them an interest in useful books would be of great service.

Judge Peters of Prince Edward's Island, an amateur agriculturist of great taste and enterprise, established farmers' libraries and reading clubs in that Island which have been attended with immense advantage. Eight hundred copies of Professor Norton's Agricultural Manual which had long lain idly on their book shelves were eagerly inquired for and purchased in the course of a few months, and a new supply was ordered. By the advice and example of Judge Peters the farmers of the Island were induced to devote more attention and a greater breadth of land to root crops, so that these had increased in annual value from £500 to £15,000. The immense importance of this fact will be manifest when it is remembered that Prince Edward's Island is not a favorable grazing or hay country. Judge Peters had also induced the Royal Agricultural Society of the Island (founded through his exertions) to import an improved breed of stock horses, and such had been the success of this experiment that they were able to export last year from the port of Bedeque alone horses to the value of £10,000.

In Northumberland we no longer import beef from Westmorland, nor pork from Canada, nor agricultural productions from the Island of Prince Edward, though a few short years ago we expended a £100,000 per annum upon these. In former years all the earnings of our lumbermen were sent out of the country, now these are provisioned by our farmers and we retain the profits.

James Taylor, Esq., M. P. P.—When this society was first formed, Mr. President, I must confess I entertained great doubts of its success, nor were my apprehensions entirely dispelled when the grant was made toward the Exhibition. But, sir, the Exhibition and its results were a triumph for your Society and the Province, every

doubt was chased away, and hope and courage came forth from your great success. I think, sir, it will never do to be content with the honors and advantages of the last Exhibition. We should have another, and that before any long time, in some populous part of the Province, and these Shows should be repeated at no distant intervals to mark and encourage the progress of the Province.

I regret, sir, that the great objects and advantages of the Society have not been properly appreciated in the Legislature, and I confess that when I compare the magnitude of these objects and advantages with the small amount of assistance contributed from the public funds, and when I remember the large appropriations made for other and very inferior purposes, I am bound to take some shame to myself as a member of the Assembly and acknowledge the Society is not patronised in proportion to its value. It is gratifying, however, to perceive that more interest is being evinced in your transactions, and that a more liberal disposition is being shewn in their support. The whole Province should unite to strengthen the hands of the Society, and carry its patriotic purposes to a successful termination. The agricultural prosperity of New Brunswick never stood so high as it does at this day, and this prosperity is in no small measure attributable to the information and encouragement afforded by your society. I beg to submit the following resolution :—

Resolved, That in order to make the operations of this Society extensively useful and beneficially felt in all parts of the Province, and to render any Exhibition it might hereafter attempt completely successful, it is essential that the representatives and the leading people of the respective counties should give their individual aid and active assistance to the Society in promoting the general interests as attempted to be advanced.

J. Jordan, Esq., M. P. P.—I am happy to learn that the success of this Society has so far exceeded my expectations and hopes. I had no idea, sir, that such wheat and oats could be grown in New Brunswick as has been reported here to-night, and it is particularly gratifying to me to hear such flattering accounts of the flour shown at the Exhibition, and grown and ground in the County of St. John. The Saint John County Agricultural Society and its spirited and indefatigable President (Robt Jardine. Esq.) should never be forgotten when allusion is made to the disasters and depressions of 1847. The exertions of that gentleman mainly contributed to the foundation of this Society, and through it to that encouragement of agriculture and home manufactures which must lead to Provincial prosperity. I second the resolution.

D. S. Kerr, Esq.—I feel bound, Mr. President, to confirm all that has been said in praise of Mr. Jardine. Our whole capital stock

of information at the outset was derived from his valuable reports to the Agricultural Society of St. John. I do not hesitate to declare Mr. Jardine to be one of the most valuable men in New Brunswick.

Hon. HARRIS HATCH, M. L. C.—I am very much gratified, Mr. President, with the proceedings of this evening, and have long felt a deep concern in the prosperity of this Society. I consider it of great importance that the Province should be creditably represented at New York and Dublin, and am pleased to learn of the preparations in which you are engaged. Among the obligations which your Society has conferred upon the locality in which I am more immediately interested, I must not omit to thank you in the name of the people of Saint Andrews for the delight and information which were afforded to us by a visit from Dr. Cuming, Veterinary Surgeon, whose presence in the Province is, I believe, mainly to be credited to the influence and exertions of this Society.

There is, sir, a great lack of self-reliance and self-respect among our farmers. They do not occupy their proper position in the social scale; they do not sustain each other as they ought, and they do not exhibit that pride in their profession to which it is so well entitled. These evils will never be eradicated until our farmers are persuaded to read more, and advise themselves of their true value, and the value of their employment to the country. There can be no doubt, sir, among the intelligent, that the ultimate prosperity of the Province depends chiefly on the success of our agriculture, and the skill, industry, and enterprise of our agriculturists. If our farmers were but true to themselves and their own interests, the Legislature would not withhold assistance from the public funds for the foundation of district agricultural libraries, and the establishment of these would shortly lead to a taste for reading and enlarged information on the many interesting and useful subjects connected with the improved husbandry of the age. Although, sir, like yourself, the greater part of my life has been directed to the profession of the law, I am so much of a farmer that I not unfrequently eat bread from my own wheat and always grow my own beef and pork. I know enough of farming and farmers in New Brunswick to state with confidence that our great agricultural difficulty exists in the apathy of our agriculturists.

I trust the success of our first experiment in Exhibitions will induce the Government and Legislature to make liberal provision for another Provincial Show in 1855.

I must acknowledge, sir, that I brought some fears with me to the last Exhibition; but, sir, I shared these fears with thousands of others, and they only served to increase our astonishment and satisfaction. The next show, sir, will be attended with no fears—you have taught us to rely with confidence on the ability of our country to supply it richly, and you have taught us that we must not distrust

your skill in the arrangements. The next Show will collect together more spectators than the last—more contributors, and more varied and valuable contributions. Many were unprepared at the last Exhibition, and some only thought of preparing when the time was past; take my word for it, sir, that come when it will, the farmers and mechanics will be prompt enough with their preparations when your next Show is announced. My heart is wrapt up in the agricultural prosperity of New Brunswick. It becomes us all, whatever our position, to work with heart and hand to promote it. I beg to propose the resolution.

Whereas the beneficial effects of the late Provincial Exhibition have been so fully acknowledged by the Government and Legislature of the country, and whereas such Exhibitions promise to be of increasing importance to the prosperity and welfare of the community, therefore

Resolved, That it is expedient that another general Provincial Show and Fair should be held under the auspices of this Society in the year 1855, at such time and place as shall hereafter be determined.

J. T. Williston, Esq., M. P. P.—It would seem, Mr. President, that England expects every man to do his duty to-night, and I suppose I must try to do mine, though I am no farmer. No man can be insensible to the immense advantages which have resulted from our Exhibition in October last—wherever two or three are gathered together, the Exhibition is the subject of discourse. The agricultural products which were brought up from the different sections of the Province taught our farmers a new faith in the capabilities of the country; and the comparison of these, one with another, excited a spirit of inquiry which in itself will prove of inestimable advantage. By or before 1855 another Show will be demanded, and it is very cheering to be informed, as we have been to-night, that all the expenses have been met, and that your Society stands in the enviable condition of possessing a balance in its favor. When I voted for the £500 in aid of your preparations for the Exhibition, I did it in obedience to a sense of duty, but I confess with no anticipation of the great results which have attended it. I think you need entertain no apprehensions that the Legislature will hesitate hereafter to afford any requisite assistance from the public funds.

It has occurred to me, sir, that your Society might advantageously, in connection with its other schemes, encourage the manufacture of an improved quality of domestic cloths. The Province is capable of raising any quantity of sheep and yet we are expending immense sums every year for imported clothing. I think, sir, it would be easy for us to clothe as well as feed ourselves. A few years ago the lumberers of Northumberland imported almost every pound of pork they carried to the woods, in the course of the present winter the

farmers of that county have put up over fifteen hundred barrels of home fed pork for our lumberers.

I believe, Sir, that the disasters of 1847, sad and melancholy as they were at the time, were in the end productive of advantage; they drove our people from the forest to the farm, and turned our lumberers into farmers. I second the resolution.

Passed unanimously.

The following, being the 6th resolution, was moved by J. A. Beckwith, Esq., and seconded by the Rev. Mr. Churchill,

Resolved, That Mr. James Whitman, of New York, be, and hereby is, nominated and appointed resident Agent for the Province of New Brunswick at the forthcoming Exhibition of Industry at New York.

Rev. Mr. CHURCHILL.—I have been entrusted with a resolution, Mr. President, from which I could very easily make a speech, and from which I would make one if it were not so late in the evening, but that my resolution tells its own tale, and scarcely requires comment. Resolutions, Sir, when properly prepared are like steps, and to-night we have by six easy and ingenious gradations, approached a landing place, to which it is now my duty to invite the meeting.

Resolved, That in the opinion of this meeting, the Legislature should make such an appropriation of money as will secure an adequate representation of the industrial resources and manufactures of the Province at the forthcoming Exhibitions of New York and Dublin.

Now if any one present, especially if any of our Legislative friends, should dislike this landing place let them say so openly; though how they can dislike it, is, I confess to me a mystery; for both by their speeches and their votes they have been helping us, through all the evening, in our ascent to this—and *no other* resting place. I think they are fairly caught, and I dare say very willingly.

Sir, we have been solicited to contribute to the Shows in New York and Dublin. We have engaged to do so—space has been already assigned for our contributions, and the Provincial character cannot fail to be compromised if the Legislature fail to supply the necessary funds. But I will not suffer myself to apprehend any such result. I look confidently for a favorable vote here to-night, and considering the large representation with which we are honored from both Houses, I shall consider such a vote all but equivalent to one *in supply*.

Dr. ROBB.—The Society proposes to limit itself to vegetable and mineral productions for the Dublin Show; the selections for New York will include manufactures. I am very sure that we possess ample material in the Province to make such a character for us as our best friends would desire, and we certainly should not lose this opportunity to exhibit ourselves advantageously. Some doubts have been suggested on the subject, but I am fully persuaded that agricultural products are admissable at the New York Exhibition.

Resolution passed unanimously.

The following, being the 8th resolution, was moved by David S. Kerr, Esquire, seconded by Dr. Robb, and passed without remark,

Resolved, That Robert Gowan and D. S. Kerr, Esquires, be a special committee to inquire and report to this Society at the annual meeting in January next, as to any alteration and improvement that can be made in the Constitution of this Society, with a view to the more efficient working of it in the different Counties and localities of the Province; and notice is hereby given that such suggested alterations, if approved of by two-thirds of the meeting, shall be adopted agreeably to the powers given by the Constitution for that purpose.

The Hon. A. E. Botsford having been called to the chair, a vote of thanks passed by acclamation to his Honor the President, and the meeting dispersed.

R. FULTON, *Recording Secretary*

IMPORTATION OF STUD HORSES.

Before closing this the First Volume of the Proceedings of the Society, we have much pleasure in directing attention to the subjoined letter from Wm. Carman, Esq., a member of the Executive Committee, who acted as delegate for the County of Northumberland at a meeting held in Fredericton on the 30th June last, with a view to take advantage of Mr. Earle's resolution, passed by the House of Assembly at their last Session, in consequence of an application made by the New Brunswick Society on behalf of the Agricultural Society of Northumberland.

We congratulate the Provincial Farmers and Lumberers on the prospect thus opened before them.

J R.

FREDERICTON, *2nd July*, 1853.

GENTLEMEN,—Agreeably to the request contained in your letter of the 22d ult., I attended the meeting called by the Secretary of the York County Agricultural Society, in pursuance of the suggestions contained in Dr. Robb's Circular of the 30th May last, and acted as delegate for the Northumberland Society, and have now great pleasure in reporting to you the favorable result of that meeting. Robert Jardine, Esquire, the President of the St. John Agricultural Society, and also one of the Vice Presidents of the New Brunswick Society, was in attendance on behalf of St. John; and rendered very essential service, as did also several practical farmers, and others who attended on behalf of York.

The Counties represented at the meeting were Fredericton, Saint John, Northumberland, Westmorland, and Gloucester. It was

1st, *Resolved*, That Mr. M. A. Cuming, Veterinary Surgeon, who, a short time since arrived from Scotland, and is now resident in St. John, in the practice of his profession, should be employed to proceed to Britain, there to select and bring out such horses as might be required by such of the Agricultural Societies as were willing to avail themselves of the liberal grant of the Legislature, and of Mr. Cuming's experience.

2nd, That the New Brunswick Society should be requested to act on behalf of the associated Agricultural Societies, and carry into effect their wishes.

3rd, That, as the Executive Government had declined advancing any money, it would be necessary for such Societies to deposit £175 Sterling in the Central Bank at the outset.

The Executive Committee of that Society agreed to comply with that request, on condition that the sum named should be made payable to their order. Telegraphic communications were forthwith sent to other Counties, whereupon Kent, Albert, and Charlotte agreed to join and provide the necessary funds. Mr. Cuming was next communicated with, and arrived here last evening, when he was put in possession of special instructions from the several Societies, and of his general instructions from the New Brunswick Society, which were in substance as follows:—

That he was to proceed to Britain in the steamer from Halifax on Thursday next, and procure upon the best terms a Horse for each associated County, confining himself strictly to the special instructions of such County; where there were no special instructions, he was directed that the Horse should be between the ages of 4 and 7 years, and to be of the weight of from 11 to 14 cwt., each.

That all the Horses were to be shipped in one vessel, either from Liverpool or Glasgow, for St. John or Miramichi, as a suitable opportunity should be found.

That proper stalls were to be fitted up between decks, near the main hatch, so as to afford as much light and air as possible. Each Horse to be well and sufficiently slung, and provided with suitable clothing, and food and water for 60 days. A sufficient number of Grooms were to be employed to take charge of them under the direction of Mr. Cuming, who is to come out in the same ship.

As neither of the Societies was disposed to exceed the sum of £300 currency, (including purchase and all expenses of Horse when landed,) it was found, on calculation, that the sum of £150 could not be exceeded in the purchase of a suitable Horse, and he was therefore limited to that sum.

The Horses will be insured in St. John against all marine risk (that is *every casualty* by sea); but as that would not be a protection against loss from disease, Mr. Cuming was instructed to effect insurance in Britain against that likewise, if possible, as also against all inland risk either by boat or rail.

It was agreed that Mr. Cuming should have 20s. per day, not exceeding 90 days, say, £90 currency for his services, over and above all expenses of passage and travel, which it was thought would amount to about £90 more, making in all £180 currency, or about £20 or £30 to each Society.

In order to enable him to purchase on the best possible terms, Mr. Jardine, Dr. Robb, and myself, procured a Bank letter of credit for £1250 Sterling, to be drawn upon as the purchases are made. As Mr. Cuming was comparatively a stranger, and the New Brunswick Society was merely acting as medium or trustee for the several County Societies; and although they had confidence in his integrity, they considered it more prudent to require security for the faithful expenditure of the money; Mr. Jardine readily consented to become such security, and agreed to give Mr. Cuming letters to his agents in Glasgow and Liverpool, as also to other mercantile concerns so as to facilitate his operations.

The breeds of Horses agreed upon by the different Counties, are as follows:—For York—a Cleaveland Bay; for St. John, Westmorland, and Gloucester—a Clydesdale; for Northumberland—a Hunter. Charlotte and Albert have given no instructions as yet, and Kent left the choice entirely to Mr. Cuming, who intends purchasing for them (I believe) a Suffolk horse, commonly called a Suffolk Punch, which appears to be the one preferred by him as most suitable to the general purposes of this country.

Mr. Cuming says that the sum named will not procure a first rate Hunter, as they reach as high as £500 Sterling; and although his general instructions are not to exceed £150 Sterling, I have, on your behalf, instructed him not to miss an opportunity of procuring a good animal for a few pounds additional, which I hope you will not disapprove of, although it may possibly exceed your limits; and that you will attribute my so doing to an anxious desire to benefit the County, more particularly when I inform you that I, in conjunction with Dr. Robb and Mr. Jardine, have expended three entire days in this matter. Both these gentlemen, I may remark, are unceasing in their endeavours to carry out your views.

As Mr. Cuming had been instructed by the York County Agricultural Society to bring out a few Sheep for them, I telegraphed to Mr. Kerr this morning, in order that your Society might avail itself of the opportunity it wished, to do so likewis

To remove any objections that may be raised in the event of the Sheep being landed at St. John, and the difficulty of getting them over, I have arranged, if so desired, that they may remain with those for York till the winter, when they can be sent over on sleds. Should you not decide in time to communicate with Mr. Cuming before he leaves Halifax, I presume you will be in time to do so by the next steamer. He left us to-day, and will leave St. John, for Halifax, on Monday night, to take passage in the steamer on Thursday, so as to be in Britain in time for the Agricultural Shows which take place in the course of this month.

The New Brunswick Society have furnished Mr. Cuming with a number of copies of Professor Johnston's Report on the Agricultural Capabilities of New Brunswick, and likewise with the Reports of the Society, and instructed him to use his influence to induce intending emigrants to make this fertile, healthy, free, and happy Province, their adopted country; and, as far as time and circumstances would permit, to carry out the views contemplated by Mr. Kerr in his resolution offered to the House of Assembly at their last session. He was particularly requested to use his best endeavors to induce a number of ploughmen and grooms to come out, and to assure them of immediate employment.

We were not advised at the meeting what King's and Queen's Counties had done, or intended doing, but it was stated that Victoria and Carleton had each determined to send to Canada for a horse, that Sunbury had sent to Vermont, and that Restigouche spoke of importing a Normandy horse.

Should these horses, together with those sent for by Mr. Cuming, arrive safely in this Province, we may expect in a few years to become exporters instead of importers of horses, as we heretofore have been. I confidently believe at all events that the large and powerful animals to be imported, as above, will impress, for many years to come, a greatly improved character upon the horses of the Province.

I have the honor to be, gentlemen, your ob'dt servant,

WILLIAM CARMAN.

GEORGE KERR, JAMES CAIE, MICHAEL SEARL,
Committee of the Northumberland Agricultural Society.

Weights and Measures.

During last Session a committee of the Society reamed the consideration of the Provincial Weights and Measures, (v. p. 349,) and submitted a draft of a Bill to the Government, which finally passed the Legislature on the 3d of May, 1853. It is entitled "*An Act regulating Weights and Measures,*" and consists of 19 sections, the titles of which are subjoined for reference:—

1. Uniformity in Weights and Measures to be secured.
2. All articles to be sold by avoirdupois weight, except certain articles which are to be sold by troy weight.
3. The English lineal yard to be the unit of length.
4. The measure of liquids to be the old English wine gallon.
5. The measure of dry capacity to be the Winchester bushel.
6. Complete sets of weights and measures to be procured by Lieutenant Governor.
7. Such weights & measures to be deposited in the Office of the Provincial Secretary.
8. Clerks of the Peace to procure duplicates.
9. Clerks of Markets and Town Clerks to keep sets of weights and measures, duly proved and stamped, as standards.
10. Those officers may enter places of business, and ships and vessels, to examine.
11. Weights of soft metals disallowed.
12. Imperfect weights and measures, and weighing instruments, to be seized; penalties declared.
13. Officers appointed by Common Council of St. John to have same powers as Market Clerks and Town Clerks.
14. Use of the heaped measure abolished.
15. The standard bushels of grains, seeds and roots, to be of certain weights respectively.
16. Coals to be sold by the ton of two thousand two hundred and forty pounds avoirdupois.
17. Recovery of penalties.
18. Repeal of former Acts and parts of Acts.
19. Time when this Act shall come into operation.

Abstract of the Treasurer's Accounts.

The New Brunswick Society in Account with Joseph Gaynor, Treasurer.

1853.	Dr.			
January.	For Contingencies of Executive Committee,	£30	7	7
	For Salary of Corresponding Secretary, ('51 and '52,)	135	0	0
	For Printing,	147	10	9
	For Bounties and Grants to Agricultural Societies,	20	0	0
		£332	18	4
	EXPENCES ATTENDING THE EXHIBITION.			
	The Building, and fitting up Province Building, &c.,	603	0	6
	Hire of Temperance Hall, together with amount paid for planing floor,	16	10	0
	Freight and Truckage,	30	9	0
	Attendance,	58	7	2
	Miscellaneous Expences,	82	19	8
	Prizes,	417	19	0
	Sports,	40	0	0
	Balance,	342	8	2
		£1924	11	10
	To this sum paid John T. Lawrence,	£54	14	6
	Paid Mr. Kerr for adver. Exhibition in Halifax papers,	2	3	6
	Paid Nathan Rideout for best Hemp Seed,	0	15	0
	Paid William Dayton for native Dye Stuffs,	0	15	0
	Balance,	339	0	2
		£397	8	2
1852.	Cr.			
January 7.	By balance in hand at this date,	£155	1	2
1853.				
January.	Subscriptions during the past year,	271	17	0
	Treasury Warrants for 1851 and 1852,	862	7	6
	Exhibition Tickets, with the proceeds of Building, &c.,	635	6	2
		£1924	11	10
Jan. 7.	By balance brought down,	£342	8	2
	From J. A. Beckwith, contributed by York County Agricultural Society,	55	0	0
		£397	8	2
Jan. 10.	Balance brought down (errors & omissions excepted),	£339	0	2

JOSEPH GAYNOR, *Treasurer.*

The Committee have examined the Treasurer's Accounts for the past year, and find the several charges duly vouched, and they believe the whole to be correct.

GEO. BOTSFORD,
S. W. BABBIT.

N. B.—The estimated amount of outstanding debts due from the Society is about £185, which amount, together with small sums for unpaid Prizes, &c., when deducted from the sum now in the Treasurer's hands, will leave not much over £100 to meet this year's expenses.

G. F. STREET, *President.*

FREDERICTON, 10th January, 1853.

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