JOURNAL

OF THE

NEW BRUNSWICK SOCIETY,

FOR THE ENCOURAGEMENT OF

Agriculture, Home Manufactures & Commerce,

Throughout the Province.

Instituted at Fredericton, New Brunswick, August 30, 1849.

PART III.

"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.

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1852.

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*, 1852.

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.

Combustible 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,
Figure-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 he 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 :—

YORK.

Executive Committee of the Society,	James Taylor, Esq., M. P. P.,	J. M. Odell,
Hon. Chief Justice,	C. Macpherson, Esq.	J. Wilkinson,
Hon. Master of Rolls,	M. P. P.,	B. Wolhaupter,
Hon. Judge Wilmot,	George Botsford,	W. Watts, Jr.,
Hon. W. H. Odell,	Spafford Barker,	J. Harding,
Hon. T. Baillie,	Thomas Barker,	William Morgan,
Lieut. Col. F. Murray,	William Barker,	Andrew Ritchie,
72d Highlanders,	Joseph Myshrall,	A. W. Block,
Lieut. Col. R. Hayne,	Robert Gray,	George Taylor,
A. D. C.,	Thomas Murray,	John T. Lawrence,
His Worship the Mayor	John Simpson,	George Todd,
of Fredericton,	John Grant,	T. R. Estey,
Col. Maclauchlan, President of C. A. S.,	J. B. Toldervy,	D. M'Pherson, Peter M'Farlane.

SAINT JOHN.

Hon. Judge Parker,	Dr. Bayard,	Robert Jardine,
President, Directors, &	Dr. Botsford,	D. B. Stevens,
Secretary of the Mechanics' Institute,	Isaac Olive,	John Owens,
	J. M. Olive,	Thomas Allan,
Dr. Peters,	Spiller & Broad,	William Jack, Esq.

KING'S.

A. C. Evanson,	M. M'Leod, M.P.P.	LeBaron Drury,
G. Ryan,	J. Hagarty, Upham,	S. Z. Earle.
Hon. W. M'Leod,	Rev. W. E. Scovil,	

ALBERT.

Col. Clark,	J. Lewis,	Hon. W. H. Steves,
J. Turner,	T. B. Moore,	W. Cairnes.
J. Edgett,		

WESTMORLAND.

Hon. A. E. Botsford,	C. Milner, Esq.,	Hon. W. Crane,
J. F. Allison, Esq.,	J. Robb, Esq.,	J. G. Layton.
E. B. Chandler, Jr.,	B. Botsford, M. P. P.	

KENT.

Hon. J. W. Weldon,	Lestook Desbrisay,	R. Cutler, M. P. P.,
W. Chandler,	Sheriff Wetmore,	R. Hutcheson.

NORTHUMBERLAND.

Hon. Attorney General,	G. Kerr, Esq.,	Edward Williston,
W. Wright,	P. Mitchell,	James Caye,
Mr. Goodfellow,	D. Wetherill,	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 that 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, *8th 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,	President of St. John	Lieut. Bedingfeld,
& Officers of 72d,	Agri. Society,	President of York
The Mayor,	Capt. Knox,	Agri. Society,
Col. Hayne,	W. F. F. Jones,	Secretary of ditto.
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 P. 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

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 the 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, boarded 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 this breed thrive better, and produce more on the same feed than the other.

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

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-

* 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, Hampshire, 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 scarcely 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 snch 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 57¾ 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	34¾	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,	3¼d.	per lb.	Cheese, 5¾d. 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:—

AGRICULTURAL STATISTICS.

COUNTIES. ☞	Albert.	Carleton.	Charlotte.	Gloucester.	Kent.	King's.	Northumberland.	Queen's.	Restigouche.	Saint John.	Sunbury.	Victoria.	Westmorland.	York.	Totals.
Inhabitants,	6,313	11,108	19,938	11,704	11,410	18,842	15,064	10,634	4,161	38,475	5,301	5,408	17,814	17,628	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	2,345	1,841	18,601
Acres cleared land,	38,210	55,537	45,656	19,312	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	6,855	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	8,512	7,206	8,078	4,375	5,417	4,824	328	2,773	510	973	7,979	15,270	4,539	74,300
Oats, do. . . .	30,326	234,628	69,988	53,005	99,120	178,968	120,366	97,359	46,517	30,961	40,024	59,163	145,396	205,343	1,411,164
Buckwheat, . . .	31,815	131,482	14,304	1,236	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	7,163	1,999	1,258	1,155	4,210	3,855	2,771	1,134	255	1,378	7,824	1,763	6,842	42,663
Turnips, ...	13,973	73,506	72,419	15,409	22,901	84,539	51,306	28,925	14,359	34,438	17,348	9,195	56,869	44,616	539,803
Potatoes, ...	124,596	174,416	163,117	314,447	365,619	303,568	289,430	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	5,402	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, .	142,137	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	3,050,939
Horses, ...	852	1,812	1,667	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	168,038
Swine, ...	1,674	3,093	2,326	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	63,231	35,684	20,653	42,105	98,427	43,872	59,283	7,432	11,012	25,957	16,022	95,245	70,936	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 fonnd 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. 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
Carried forward,	£49	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 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, -	3	0	0
Bookbinding, specimen of best, -	1	0	0
Ornamental Writing, best, - -	1	0	0
Model or Design of any kind, best, -	2	0	0
Ditto ditto ditto, 2nd best, -	1	0	0
Patterns for Casting, best assortment, -	1	10	0
Crochet work, best specimen, -	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 must 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 Earl 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,	Robert Stephenson, M. P.,
The Earl of Carlisle,	Beriah Botfield,
The Earl of Ellesmere,	Sir C. Barry, R. A.,
The Earl Granville,	I. K. Brunel, F. R. S.,
The Lord Colborne,	Thomas Creswick, R. A.,
The Lord Overstone,	W. F. Cooke,
Sir J. P. Boileau, Bart.,	Charles Dickens,
Rt. Hon. E. Strutt, M. P.,	C. Wentworth Dilke,
Rt. Hon. T. Milner Gibson, M.P.,	M. Faraday, F. R. S.,
H. T. Hope, M. P.,	Owen Jones,
George Moffatt, M. P.,	J. M. Rendel, Pres. Inst. C. E.,
S. M. Peto, M. P.,	W. Tooke, F. R. S.

COUNCIL.

John Bell,	Dr. Lyon Playfair, C. B.,
Thomas Cubitt,	J. Scott Russell, F. R. S.,
Joseph Glynn, F. R. S.,	W. W. Saunders,
Wyndham Harding, C. E.,	Sydney Smirke, R. A.,
Professor T. H. Henry, F. R. S.,	Prof. Edward Solly, F. R. S.,
Captain Henry C. Owen, R. E.,	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.

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