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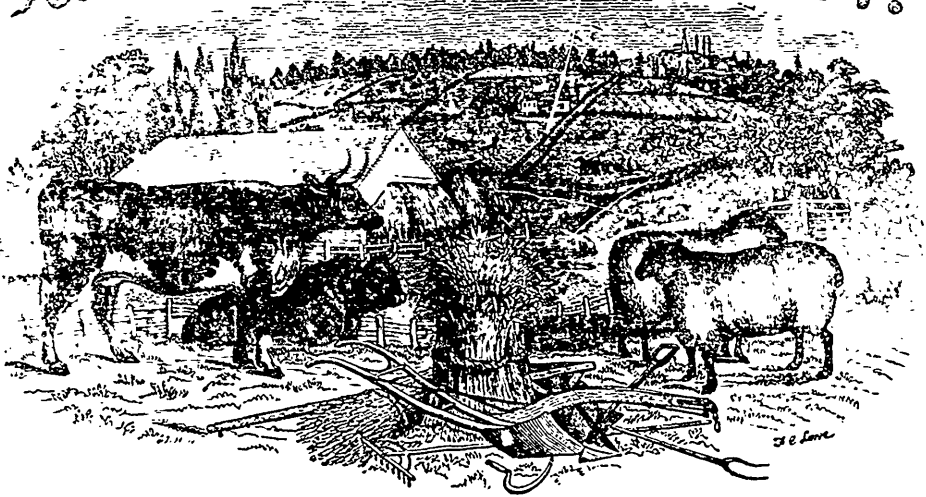
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# CANADIAN AGRICULTURIST.



“The profit of the earth is for all; the King himself is served by the field.”—ECCLES. v. 9.

GEORGE BUCKLAND, }  
WILLIAM McDUGALL, }

{ EDITOR,  
{ ASSISTANT EDITOR

VOL. II.

TORONTO, NOVEMBER, 1851.

No. 11

## MEETING OF THE BOARD OF AGRICULTURE OF UPPER CANADA.

A meeting of the Board was held, pursuant to adjournment from July 4th, in one of the Committee rooms belonging to the Legislative Assembly, November 4th, 1851, at 11 o'clock, A. M. Present,—Hon. Adam Fergusson, E. W. Thomson, J. B. Marks, Sheriff Ruttan, R. L. Denison and the Secretary.

The Minutes of the last Meeting having been read and confirmed:—

1. It was moved by the Hon. Adam Fergusson, seconded by Mr. Sheriff Ruttan, that E. W. Thomson, Esq., be the Chairman of the Board for the current year. (Carried unanimously.)

2. *Resolved*, That the best thanks of the Board be presented to J. B. Marks, Esq., Chairman *pro tem*, for his zealous and valuable services.

The Secretary brought before the notice of the Board, a box of grains, consisting of various kinds, from different parts of the world, which he had received from Henry Houghton, Esq., the agent

to the Canadian Commission at the great Exhibition in London, and presented by Mr. Houghton to the Agricultural Association of Upper Canada. The seeds were obtained from specimens Exhibited at the World's Industrial Exposition in London. The Australian wheat and barley are particularly bright and heavy. A portion of these grains are to be preserved in a collection or museum, that is about being formed in connection with the Board of Agriculture, and the remainder is to be sown in the Spring, by way of experiment.

3. *Resolved*, That the thanks of this Board be communicated to Henry Houghton, Esq., for his kind attention in forwarding the above mentioned seeds.

4. *Resolved*, That the Chairman and Secretary be authorised to procure a Gold Medal awarded to John Lynch, Esq., of Brampton, as an extra premium for an Agricultural Essay, in accordance with the 13th Resolution, passed at the annual meeting of the Provincial Agricultural Association, held at Brockville.

5. *Resolved*, That the Secretary be instructed to make such arrangements with the Committee of the Johnstown Agricultural Society, and the authors of the Essays that competed for the Society's prize, with reference to their publication, as may appear expedient and practicable. And in case the Board should adopt any of the Essays for publication, a Diploma be presented to the respective writer thereof.

6. *Resolved*, that three acres, at least, of the intended Experimental Farm be prepared for Hemp, Flax and Sugar Beet; that the ground be ploughed forthwith; and that the Secretary be authorised to communicate with the University Authorities on the subject, for the purpose of commencing immediate operation.

7. *Resolved*, That the Secretary of this Board address a Circular to the Presidents of the County Agricultural Societies in Upper Canada, inviting their attention to the requirement of the new Agricultural Acts, particularly in reference to the Election of two Members of the Board at their annual meeting in February; requesting also their co-operation in carrying out the objects of the Board, and their pecuniary aid towards sustaining the character and operations of the Provincial Association.

8. *Resolved*, That the Secretary communicate to the several County Societies the absolute necessity of transmitting to this Board the names of three persons each, who are competent to act as judges at the next Annual Show of the Agricultural Association; and that they be requested to make the selection at their Annual Meeting in February; and to designate, particularly, what department each is competent to act in; and that in the event of this request not being complied with at the time this Board shall meet after the first of April, they shall then take such steps as to them shall seem expedient to supply the necessary number of judges.

The Board adjourned at 4 o'clock, to ten next morning.

WEDNESDAY, NOVEMBER 5th.

The Board met at 10 o'clock, A.M. Present, E. W. Thomson, Chairman, Hon. A. Fergusson, J. B. Marks, Sheriff Ruttan, R. L. Denison, and J. Harland.

The following resolutions were adopted:

9. *Resolved*, That the next exhibition of the Agricultural Association of Upper Canada be held

in the City of Toronto, on the 21st, 22nd, 23rd, and 24th days of September, 1852; and that the Secretary be instructed to communicate the same to the Secretaries of the Lower Canada and New York State Agricultural Societies.

10. *Resolved*, That the Mayor of Toronto; the Sheriff and the Warden of the County of York; F. Widder, Esq., Commissioner of the Canada Company; and Professor Croft, Vice Chancellor of the University of Toronto, be in terms of by-law, members of the Local Committee for making the arrangements for carrying out the Exhibition.

11. *Resolved*, That the notice required by law be given with a view to make or amend such By laws as may be considered necessary at the next annual meeting of the Agricultural Association.

After considerable deliberation on various matters arising out of the new Agricultural Statute, the Board adjourned until ten o'clock next morning.

THURSDAY, NOVEMBER 6th.

The Board assembled this morning pursuant to adjournment at 10 o'clock, A.M. The same members present as on previous day. Mr. Sheriff Treadwell of L'Orignal, 2nd V.P. of the Provincial Agricultural Association, favoured the Board with his presence, and offered several valuable suggestions. The expediency of commencing the formation of an Agricultural Library in connection with the Board having been discussed, it was

12. *Resolved*. That the Chairman and Secretary of the Board, with the Treasurer of the Agricultural Association and Hon. Adam Fergusson, be a Committee for commencing a Library, with authority to expend a sum not exceeding £50 in the purchase of books; and to report their proceedings at the next meeting of the Board.

13. *Resolved*, That the Secretary be authorized to purchase for the Library of the Board of Agriculture, the British Stud and Herd Books; the American Do.; and that blank books be procured for recording the pedigrees of Horses and the pure breeds of cattle in this Province.

14. *Resolved*, That 100 copies of the new edition of Mr. Hind's Lectures on Agricultural Chemistry, be purchased and distributed to the general County Agricultural Societies in the Province.

15. *Resolved*, That 500 extra copies of the *Canadian Agriculturist* for the present month, containing Mr. Sheriff Treadwell's report on the Agricultural, social, and industrial condition of Canada, be taken for gratuitous distribution.

A communication from Mr. R Wade, Jr., Cobourg was read on the expediency of distinguishing the prize animals and articles at the Provincial Exhibition as soon as the prizes are declared:—a matter which the board agreed to consider and decide on, at its next meeting. Mr. Marks submitted a letter from the Middlesex Agriculture Society, intimating their intention of waving their claims to the Provincial Show till the completion of the railway, when London will expect the exhibition and be prepared to sustain it. This should have been noticed in connection with the proceedings of the annual meeting at Brockville, but was inadvertently omitted.

The Chairman and Secretary were authorised to make the necessary application and arrangements for procuring one of the vacant rooms in the Government Buildings for an office for the Secretary of the Board.

The Board adopted an arrangement with the Proprietor of the *Canadian Agriculturist* for the improvement and enlargement of that journal for the ensuing year, so as to include the transactions of the Board, and to keep down the charge for the paper to members of Agricultural Societies, to the present rate of half-a-dollar per annum; the entire editorial management to be in the hands of the Secretary of the Board.

The Board after talking over several topics of importance, particularly those in reference to the proposed Experimental Farm on the University grounds, arrangements for the commencement of which will have to be decided on at the next meeting. It was

17. *Resolved*, That this Board adjourn to Tuesday, the 20th of April, 1852.

CANADIAN MANUFACTURING PROGRESS.

No. 1.

George Buckland, Esq., Secretary Provincial Agricultural Association.

MY DEAR SIR,—Allow me to call your attention to the following new branches of manufactures, specimens of which you had for the first time exhibited at Brockville, viz:—

W. A. Clark.—Sheep Skin Factory, at Toronto; Letter Herewith.

H. H. Date, Edge Tool Factory, at Galt; statement herewith.

Railroad Spikes, manufactured in Montreal.

Patent Waggon Boxes and Cast Iron Pumps, manufactured at the Brockville Foundry, by R. Colton.

I am, Your Obedient Servant,  
J. LEWIS MACDONALD.

Gananoque, Oct. 1851.

No. 2.

Toronto, Sept. 27, 1851.

J. L. Macdonald, Esq., Gananoque.

DEAR SIR,—Agreeable to your request, I herewith give you, (for the benefit of the Provincial Agricultural Association,) a statement of the capacity of, and the business done, by the Toronto Sheepskin Factory.

It was completed Nov 1, 1850, since which time it has been in active operation, and is now dressing an average of eighteen hundred skins per week; and gives employment to about 25 hands.

The manufactured articles, such as Shoe Linings, Bindings, Book-Bindings, Coach Linings, and Trunk Skins, have thus far found a market in the various towns in Canada. The wool, of which there has been pulled about 140,000 lbs., all went to New England for a market until the 1st of May last; since then the increase of machinery has made a steady home market for all suitable for clothing purposes, and none has been shipped from this establishment for a foreign market, except the long worsted wool.

While on the subject of wool, allow me to make a suggestion. I think a great injustice is done to our agricultural interest, by our commercial regulations with the United States. While wool coming into this country pays 2½ per cent duty, all wool grown in this country and exported to the United States pays 30 per cent duty there. Now as we want some of their fine clothing wool, and they want our combing or worsted wool, would it not be well for the Provincial Agricultural Association to make an effort to bring about something like reciprocity in this article particularly?

Please accept my thanks for the interest you have taken in my manufacturing establishment, and with my best wishes for your health and prosperity, I am, Sir,

Yours, Respectfully,  
W. A. CLARK.

H. H. Date, Manufacturer of Edge Tools, Factory in Galt—Water Power.

Articles manufactured at the present time are,

- 1st. Chopping Axes.
- 2nd. Broad Axes.
- 3rd. Hand Axes.
- 4th. Hunter's Hatchets.
- 5th. Adzes.
- 6th. Chisels (carpenter's edge tools.)
- 7th. Cast Steel Augurs.
- 8th. Tin Smiths' Shears.
- 9th. Coopers' Edge Tools.

The future operations of the factory will comprise, in addition to the before mentioned articles, Forks, Hoes, Spades, Shoves, &c. Planes of all kinds.

L'ORIGINAL, 18 Sept., 1851.

JOHN B. MARKS, Esq, President of the Agricultural Association of Upper Canada.

SIR,—In attempting to make a report to the Provincial Agricultural Association, I fear that I shall fail in accomplishing the task, from circumstances beyond my control, as I have not been furnished with any report from the experts in reference to the condition of crops for the present season; and having been absent at Toronto, for the purpose of advocating the Northern Line of Railway from Montreal to Kingston, from the time of seed-sowing until a considerable part of the harvest was gathered in, I am unable to speak from my own observation. I have, nevertheless, received from one of our best farmers the following note which I here transcribe:—

CALEDONIA, 18 Sept., 1851.

SIR—I forward you a notice of the state of the crops in this locality. It is that of one whose time and opportunities of extended observation is very limited. Grass is a most abundant crop, but the early part of the hay harvest was very rainy and there is some bad hay. Wheat is a heavy crop. But the early-sown wheat is injured by the fly. The farmers here must, we apprehend, depend for some time upon Black sea wheat, sown about the 25th of May. Barley, oats, and peas are a most abundant crop, and have been saved in good condition. Potatoes were early rusted, and there are some indication of rot. At best they must be but a scanty crop and of inferior quality. The season was too wet and cold for Indian corn, and it is late; but, if the present favorable weather for ripening it continues, it may be nearly an average crop. Turnips are an exceedingly good crop, and it is a favorable indication of the progress of agriculture, that the cultivation of this most excellent root is on the increase. I enclose you a letter of excuse to Mr. Buckland—please deliver it. I am &c., signed, PETER STIRLING.

I owe Mr. Stirling an apology for making use of his name without his consent, but I feel that it is an act of justice to him that it should be known.

As I am about to retire from the Presidency of the Agricultural Society of the United Counties of Prescott and Russell, a situation which I have filled for the last twelve years, I think that it may not be improper to make some remarks that may be of service to Agricultural Societies generally. It is now twenty years since I first became connected with the Agricultural Society of the Ottawa District, since which period the limits which then comprised this District, includ-

ing the Townships of Gloucester and Osgoode only, numbered 4,180 inhabitants in 1831, and in 1850 the number had increased to 16,302, being four-fold; and I feel confident that our Agricultural improvements have advanced in an increased ratio. I am happy to learn that my expectations as expressed in a letter to the Editor of the *Canadian Agriculturalist*, dated 21st of May, 1850, and published in the July number of the same year, have been more than realized in reference to the World's Grand Industrial Exhibition; and that the minerals taken to London by Mr. Logan, the Provincial Geologist, have been of the greatest possible service in bringing Canada under the favorable notice of the British Public. The wheat, peas, oats, and other grains raised in this country must elevate the Agricultural character of the Province, and our fire engines, blankets, cloths, hardware &c., must satisfy the good people of Britain that we have among us both mechanics and manufacturers that will soon be able to satisfy our wants.

It is with no ordinary degree of satisfaction that I perceive that the views expressed in several of my letters, written on the subject of Railroads, within the last four years are being realized in less time and in a more efficient manner than I could possibly have anticipated. During my stay at Toronto I had the pleasure of seeing several gentlemen from Nova Scotia, New Brunswick, and other of the Eastern Provinces, and from them I learned that the same enterprising spirit that has been evinced in this Province, has been fully sustained in the other Provinces situated between us and the Ocean. In adverting to the city of Toronto, I feel confident that it will bear a favorable comparison with any city of the same population in America; its population in 1850 amounted to 25,166 souls. It can boast its University with its beautiful grounds, a part of which has been appropriated for an experimental farm, and a Professor of Agriculture is about to be appointed, and an Agricultural Board has recently been established, which will be of the highest possible service to this Province. Upper Canada College has been for many years in successful operation. Knox's College and Toronto Academy, in connexion with the Free Church of Scotland, are making great and successful exertions to educate the youth entrusted to their care. The Congregational Institute under the able and pious instruction of the Rev. Adam Lillie, and the Normal and Model Schools that are training teachers, and introducing a system that will bestow the highest benefits on the rising generation are situated at Toronto, and are but in their infancy. The amount of good that will arise

from these institutions, if successful, will be of incalculable value. The Upper Canada College is the only one whose buildings are completed. The University has only one wing, and a building for anatomical purposes, yet erected, but they have the funds and are going on immediately with a splendid pile of building. The Legislature last year voted £15,000 for the purchase of grounds and the erection of edifices for the accommodation of the Normal and Model Schools, and a fine block of buildings are in progress for that purpose, and will probably be occupied this season. The Lord Bishop of Toronto is building a splendid college at the west end of the city, and, when completed, his Lordship will remove the Diocesan Institute from Cobourg to its new location. It has also been hinted that Victoria College, belonging to the numerous and respectable Wesleyan Methodist body, will also be removed from Cobourg to Toronto. These, in addition to what Toronto now possesses, will render her the seat of learning for British America. Kingston can also boast of its two Colleges. The University of Queen's College, in connexion with the Church of Scotland, and the College of Regiopolis belonging to the Roman Catholics. Montreal can boast of its Protestant and Roman Catholic Colleges, and of as many Religious, Benevolent, and Charitable Institutions as any other city, of no greater number of inhabitants, in America. There are many other religious and literary institutions, to which I have not time to allude, scattered throughout the length and breadth of Canada. The splendid style of building displayed both in our public and private edifices, the regularity and spaciousness of our streets, and the neatness that is observed in cities, have been the admiration of American travellers; and it may not be amiss to observe, as far as Upper Canada is concerned, that in the attendance of day and Sunday school scholars, they bear a most favorable comparison with the neighboring States. (These remarks in reference to Sunday schools may with strict justice be applied to Montreal)

Facts of this kind, and statistics showing our rapid advancement, should be brought out and circulated under the sanction of the Government in countries from which we expect to obtain emigrants. Henry Youle Hind, Esq., Mathematical Lecturer, &c., to the Normal School, Toronto, has clearly shown that the soil and climate of the Canadian Peninsula, surrounded by the great Lakes, is the best agricultural country on the continent of America. This should be as widely known as possible; and we who inhabit the valleys of the Ottawa and St. Lawrence must claim for ourselves proximity to market,

forests of timber, rich mines, and immense water privileges; so that Canada can accommodate the agriculturist, the mechanic, and the manufacturer with locations of the most favorable kind possible, and our natural resources only require to be made known, to secure to us emigration to an unlimited extent. It is contended that British America contains lands of the finest quality for agricultural purposes, to accommodate a rural population of fifty millions! There are prairie lands in the interior of our own possessions, on this continent, equal to any of the prairie lands in the United States; and I have heard the remark made by gentlemen who have travelled through the Western States, that Canada will compare favorably with any of the new States; and while they by no means blame the Americans for that *amor patriæ*, which they exhibit on many occasions, they think that we are far behind in making known the relative advantages of our own country. I omitted to mention that while at Toronto, I visited the Lunatic Asylum, a splendid block of buildings situated on Queen Street about two miles and a half from the Market house (which last mentioned building does great credit to the Corporation of the City.) In visiting this institution it exhibits the utmost neatness and regularity in all its internal arrangements, and while from necessity, the parties are in confinement, every possible attention is paid to their wants; and every means resorted to for the purpose of securing their restoration to health and freedom. I also visited Her Majesty's Magnetic Observatory, under the superintendence of Captain Lefroy, R.A.F.R.S. The vibration or motion of the Earth is noted every instant of time, as well as its force, by the combined powers of magnetism and light. I would advise every gentleman fond of science to visit it for himself. I must not omit to mention Mr. Lesslie's Horticultural Garden, comprising about 60 acres, and situate about a mile below the River Don; such establishments must be of immense value to Canada. The Canada Company have done much to encourage the agriculture of the Province, and I am happy to say that they are increasing their exertions.

In adverting to the World's Grand Industrial Exhibition, I regret that the United States did not contribute more to it, although in many things, I rejoice to say, they have been highly successful. I fear that their immediate cause of dissatisfaction may be that the disagreeable differences that took place at the meeting of the Evangelical Alliance in London, in 1847, have induced them to keep back; or as they are young in manufacturing, they do not think that they could compete on equal terms; or they may not

wish to introduce into their markets those extra fine articles of sumptuous luxury, which the nations of the Old World must excel in, and which may be contrary to their notions of Republican simplicity: or they may consider it a free trade movement which they, knowing what is good for themselves, do not wish to participate in. It is highly probable that the Americans will have a grand Industrial Exhibition of their own, on the same principle as that established in France. His Royal Highness Prince Albert must feel the highest gratification that is possible for man to enjoy, in the unexampled success that has crowned his exertions in this splendid Exhibition; and Her Majesty, the Queen, must look upon the Crystal Palace and the scenes she has witnessed therein, as the proudest moments of Her life, and of Her reign; and it will form an era in British history of the most happy nature, and be looked back to with the highest degree of satisfaction by every inhabitant of Britain and her colonies. It is the grand turning point of convincing the world of the benefits of free trade, and of inducing other nations to adopt the principle; or it will induce the British Government to adopt the principle of a limited protection, to save her colonies and her agricultural population from destruction: as I doubt if other nations will not be induced to adopt the former course, it will render it necessary for Great Britain to adopt the latter one. There are strong doubts in the minds of many that the present prosperous state of the United Kingdom, is by no means owing to the doing away of protection. It is contended that the prosperity is owing to a series of good crops; to the facilities of communication by Railways; and to the indomitable spirit of Anglo-Saxon energy and perseverance. The security of Continental markets for the British manufacturer is extremely problematical, and the doing away with Colonial protection, has taught the colonies the lesson that they must manufacture for themselves. There may be persons in Britain that think colonies of no consequence to the Crown, and that the sooner they are freed from any dependence on the Imperial Government, the better; but I would doubt if there is any statesman who would rise in his place in Parliament and advocate such a policy. Let Great Britain throw off her North American Colonies in the year 1851, and before 1860, there would not be a colony remaining to the Crown; and from being the first nation on earth she would descend to a third rate power. I believe that we shall yet receive a healthy degree of protection from the Crown, and that the Anglo-Saxon race, and the Anglo-Saxon language, will carry the benefits of civil and religious liberty to the ends of the earth, and I believe that Great Britain and the United States,

acting in concert, will effect this glorious object. When the Navigation and Corn Laws were repealed, there was an absolute necessity for the mitigation of the condition of the manufacturing and labouring men of the nation; this having taken place to the curtailing of the agricultural interest, it now becomes necessary to examine how far that interest may not be compelled to emigrate to other countries, where they receive a limited degree of protection.

In the present enlightened age when the greatest good to the greatest number is fully carried out, a proper respect should at the same time be had to the rights of persons and property, and while the labour of the nation is its bone and sinew, it must be admitted that the wealth and capital is the blood that gives it vitality, and circulates through the heart to and from its utmost extremities. Great Britain pays more taxes than any other nation, and an Englishman pays taxes with more grace than any other man, because he is aware that it is necessary to sustain the Government, which he feels a pride in declaring to be the best Government on earth; and under the wholesome administration of whose laws he feels that the rights of person and property are better protected than under any other Government; and that any political revolution would lessen their protection and render them less prosperous.

During the last two Sessions of Parliament the question of settling the currency of the North American Colonies has been keenly and ably debated. As an abstract question the decimal currency has much in its favour and few objections against it. When taken in all its bearings I have not sufficient information to venture an opinion; but when this subject is taken in comparison with that of protection, which has made Great Britain and the United States great nations, and the latter has proceeded with a rapidly unexampled in the rise of any other nation, it shows clearly that the subjects bear the same proportion to each other that the expense of keeping the account bears to the account itself, except in the depreciation of certain coins mentioned in the statute. The duty paid on our grain, cattle, and lumber passing from our own to a neighbouring country, should be removed. In my last report, I adverted to the policy of the American Cabinet, and to the correctness of that policy, so far as they were concerned, and the opinion then expressed has been fully sustained by the action of Congress. Much agricultural wealth is being withdrawn from the British Isles, and more will follow for the want of protection. It has been clearly shown that we have the climate, soil, and form of Government for these emigrants; but these facts are not sufficiently

known, and there is no country where their money could be immediately invested with the same safety and advantage through the medium of Loan Offices, as in this country, as the Banks are prohibited from succouring the farming interest. When the Bank of Upper Canada stood alone in Upper Canada, it accommodated the agricultural interest of the country by discounting paper payable by five instalments, so that the farmer could safely go to the Bank for accommodation for his seed, and even to buy cattle and fatten them and get the money to replace it by their sale. But when other Banks came into operation, it was prevented them from acting with the same degree of liberality that they had formerly done. By introducing British capital it would prevent the necessity of increasing the number of Banks, a policy of a doubtful nature.

When an additional hundred pounds per annum was recommended for each County Agricultural Society, I suggested that it should be expended as follows: Fifty pounds of the first year's grant for the purchase of an agricultural library, and the like sum of fifty pounds be expended in purchasing and distributing choice seeds throughout the country. That the sum of one hundred pounds be expended in premiums for the encouragement of horticulture for the second year; and for the third and following years, the sum of one hundred pounds be expended in encouraging the improvements of the breeds of cattle, horses, sheep and swine; but the appropriation had been made before the suggestions were received, and I regret to find that the £100 was struck out, and that the act was restricted to last year's amount. I had, previously to making this application, petitioned the legislature for a grant of fifty pounds for each constituency, for the purpose of purchasing an agricultural library to be established in each county, provided that before claiming such boon, they should establish a seed store and agricultural warehouse for the sale of agricultural implements of the most improved kinds.

In conclusion I beg to remark that the experiment I farm in connexion with the Agricultural Board, will be of the greatest possible advantage to the Province at large, by fairly testing the relative advantage of deep, shallow, and medium ploughing; thick, thin, and medium seeding; early, late, and medium sowing; and by introducing and testing all kinds of grains and grasses as well as roots of every description. And it is to be hoped that the science of horticulture will meet with that attention to which it is justly entitled. The model farm that is to be attached to the Normal and Model Schools will be of incredible advantage to the students of that Institution.

I am happy to learn that the Agricultural Association of Lower Canada have made arrangements with Alfred Pensinnault, Esq., a French Canarian gentleman, to induce him to allow his splendid establishment at St. Philippe, near La Prairie, to be occupied as a model farm for the Eastern Section of Canada; I regret that I have not had the pleasure of visiting it; but I am informed that there is nothing that can compare with it in any section of Canada, and it may be doubted if there is any establishment on this continent, that can do so not in point of extent, but in the style of its internal arrangements and the manner in which it has been conducted.

I beg pardon for the length of this report, but before closing I wish to say that since it was written I have visited Boston, and from what I have seen, there can be no question but that the Americans have learned from the celebrated Dr. Franklin that time is money and that economy is wealth; and they are also fully aware that knowledge is power, and the combination of these, under the blessing of God, have made them a great people.

When so much has been said with strict justice and without flattery in favour of our neighbours, let us now turn our eyes to our own country and examine its position; let us contrast its present state with what it was at the commencement of this century. At that time it was little known and less valued, and it scarcely contained a tythe of its present population. I am now writing without statistics before me, but if the census of Canada was carefully taken it would be found to contain within its vast bounds about 2,000,000 of people. Should not every Canadian without reference to origin, be this the land of his birth or of his adoption, feel a pride in its advancement. At that time the climate was set down as being the same as Greenland, now a large proportion of it is found to be the best agricultural climate and soil on this continent, of which Great Britain at this moment holds about one half, and Canada can boast of having here constructed by the energy of her sons the most magnificent canals that the world has ever seen, and the people of Canada and the people of Britain are projecting an iron road to connect the Atlantic with the Pacific through British territory, and make it with British capital and by British subjects. This, and this alone, will develop the value and extent of the British possessions on this continent, consisting of immense tracts of arable land; forests of valuable timber to an unlimited extent; inexhaustible mines of iron and coal, together with rich mines of copper, lead, plumbago, &c., &c., and with the finest harbours and fisheries in the world, and with water privileges that will not be fully improved to the end of time. Colonies



possessing these advantages must be highly esteemed by the Mother Country, as an outlet for her surplus population; and as a field for the employment of her redundant wealth; and furnishing in many instances the raw material for her operatives; and all that is required to command the highest degree of prosperity in a system that shall combine a moderate and judicious protection together with steady and permanent legislation.

CHAS. P. TREADWELL,  
President of the Agricultural  
Society of the United Counties  
of Prescott and Russell.

## THE VENTILATION OF BUILDINGS.

To the Editors of the Canadian Agriculturist.

GENTLEMEN,—

It is an old aphorism that "those that know nothing, fear nothing;" and because "we live as long as our neighbours," we do not comprehend the anxiety and interest which have lately been manifested upon the subject of ventilation.

Mr. A. Downing, who in connection with his excellent work on the "Architecture of Country Houses" says "The want of attention to ventilation arises from the fact that the poison of breathing bad air is a slow one, and though its effects are as certain as those which follow from taking doses of Prussic acid, yet they are only observed remotely, and little by little.

When a man is hungry, and thirsty, nature compels him to cry out for food and drink; but she does not so urgently protest against impure air; although a man in the one case may live several weeks without food, whilst in the other, no one has ever been known to live three minutes without air.

Whilst we go on from day to day suffering the accumulated evils resulting from our ignorance, and wondering at our want of physical health and spirits, we yet do not act, because we do not see our neighbours taking precautions against these evils, we are, in fact, content to "live as long as our neighbours."

It is a well ascertained fact that a healthy man takes into his lungs nearly sixty hogsheads of atmospheric air every twenty-four hours, which air, when expired, is so vitiated that but a very small portion of the vital principle is left. Now, if we add 100 per cent. to this vitiated atmosphere for that which is rendered impure by cutaneous transpiration, and the combustion of lamps and candles, and multiply the product by 10 (the number of inmates in an ordi-

nary family), we will have the enormous quantity of more than a thousand hogsheads of air consumed by one family during twenty-four hours! Now let us take one of our best built houses heated by stoves, with, perhaps, two or three fire-places, but the... carefully closed up by "fire boards," and calculate the quantity of fresh air which circulates through this building during 24 hours of our coldest zero days and nights in winter, when every atom of external air is, as far as possible, excluded, and then some estimate may be formed of the great deficiency, and dreadful state of the atmosphere in which we in general live during our Canadian winter of seven or eight months.

"It has been well remarked" Mr. Downing says "that if the air, as it comes from the lungs, impure, and robbed of its vital principle, were thrown off coloured, so that it would not mix with the common air of a room, but remain visible to the eye, the impression that would be made upon the mind to the presence of the large source of disease would be so strong that the first of all invariably acknowledged duties for the preservation of health would be ventilation." It is only because bad air is invisible to the eye, and we are consequently unconscious of its presence, that so much indifference to ventilation is manifested. It is true that upon entering a room immediately from the fresh air, we are conscious of an unusual smell; but the olfactory nerves are so delicate, and so soon blunted, that in less than one minute we become wholly unconscious and indifferent to it; the poison is, nevertheless doing its work with every breath we draw.

If people would but reflect and reason upon this subject, there would be no further necessity of enforcing it by writing. Why do we die if our breath is suspended but for one or two short minutes? It is because the blood must be kept pure and thin, or, such is the substance of its constitution and operation, that it would cease to flow through the inconceivably small channels which conduct it through every particle of the flesh from the crown of the head to the sole of the foot; and, when it ceases to flow, there the flesh must putrify. The air is, we all know, the only agent which will keep the blood thus pure, and enable it to circulate, and impart the vital property to the system. The atmosphere no less sustains life by imparting this wonderful property to the blood, than by its supplying the place of the miasm, if I may so call it, which the veins collect, and bring back to the lungs for expulsion, and which miasm, if left in the system for but a very few moments, would cause immediate death. Now if we further reflect that if the air is loaded with any admixture, such as the expired

breath, or emanations from the skin, or its natural proportions in any way deranged, and that it cannot be breathed without producing injurious results, we must see that the air within our dwellings ought to be constantly and rapidly removed, and pure air substituted.

Mr. Downing says, referring to the enormous quantity of air required by man in order to sustain health, that "it is to vitalize and purify the blood. The human lungs are the apparatus by which this process is effected, and the atmospheric air is the agent that performs the work. In each of these two lungs there are one hundred and seventy two millions of air cells, and every time breath is drawn in, the air passes down and fills these little air cells. On the other hand the blood is always going and returning to and from these air cells which compose the lungs; and in the short space of time that it remains there—only a moment—it is entirely changed in its appearance and character. That is, it comes into these air cells of the lungs, impure, and of a purple colour, from the veins, and after having been submitted to the action of the air, goes out of the lungs red, pure, and bright, through the arteries. The arteries immediately distribute again, to all parts of the system, the purified blood, which as it goes through the system, imparts warmth, strength, and life; and by the time it is poured into the veins on its return course, it becomes quite dark and impure again; and this process, when repeated, is what is called the circulation of the blood."

Now it is exactly in proportion to the purity, and also the *quantity* of air with which we keep these one hundred and seventy two millions of air cells distended that we shall enjoy health;—hence the constant advice of the physicians to take "open air exercise." This "exercise," however, in no wise contributes to our health except as a means to an end. It carries a quicker action in the lungs which by this means have the advantage of a greater quantity of air, causing a proportionate purity of the blood and consequently its more rapid motion. Why is it that most people are *right handed*? Because the right lung is the largest and imparts to that side of the body greater strength. All animals, as a general rule, whose lungs bear the largest proportion to their bodies are the strongest. If health and strength, therefore, be so dependent upon *quantity* of air, how much more important to us must be its *quality*.

Our senses of sight and smell have not been given to us for nought; and although they are not so subtle and acute as would render us miserable, and not, perhaps, answer the ordinary purposes of life, yet we must take it for granted,

that the Giver, having also vouchsafed to us *reason*, intended that they should be sufficient for us. And so they are sufficient guides for us even upon the matter in hand. We frequently see the fog of filth and dust which we are breathing in a room covered with a woollen carpet, yet we disregard it the very moment we so far alter our position with respect to the rays of light, which revealed the enormity to our sight, as to prevent our being sensible of it! Now, if we would but allow our reasoning faculties to have fair play, you would see polished floors or well kept oil-cloths substituted for these nuisances, woollen carpets. So also with respect to the sense of smell:—*reason* would teach us that if upon stepping into a house or room we were sensible of an odour different from the external atmosphere, there was something wrong. But no: half a dozen inspirations render us insensible to it, and all is right! As the gardener cannot smell the *rose*, nor the Southern wood-chopper the *magnolia*, so we, after a few minutes' delay, are insensible to the disgusting odour of our unventilated room!

Liebig, whose authority in these matters will not be doubted, will tell you that all diseases are communicable by infection or contagion—that some of them will remain for years in clothes or garments of any kind—that chests, trunks, boxes, rooms, closets, and houses after lying unused or unoccupied for years will communicate disease. And all this merely from the effects of the breath or emanations from the bodies of diseased persons who formerly inhabited them. Can any one doubt then that the very best kept dwellings, unventilated, the floors covered with woollen carpets, the windows and beds hung with stuff curtains, and the walls covered with paper, in a few years become saturated with putridity, and redolent with disease?

As a corroboration of the assertion that not only the furniture, but the very wood and walls,—in fact the whole inside of a dwelling, becomes impregnated with the breath, follow a family into a new domicile, and the very same odour will soon become apparent. Indeed it is not difficult to distinguish the kind of disease with which a family may be affected, so palpable sometimes is the effect of the miasm in the building. I find it in walking along the road or street, the easiest thing in the world to distinguish a healthy from an unhealthy house. Wherever you see a small dwelling with four, five, or six good large chimneys, then you may depend they pay small doctor's bills in comparison to those who have but one or two 9 x 14 inch flues.

People in general do not reflect upon the danger of "taking" a dwelling which may have been

for some time shut up or one which has been inhabited by an unhealthy family. I have observed that in many instances the new occupants would be taken down with fevers. Indeed no person of reflection will ever take such a house in the present state of ventilation in this country. A house properly ventilated, however, may stand for years shut up, and be in a purer state than when occupied.

But the most fruitful source of disease in our unventilated dwellings is our cellars.

If upon taking up our quarters in a public or a private house, we should be put in a room situated over a heap of dead carcasses in a state of decomposition, we would be astonished; but this would be something worse, in *degree* only, than the state in which we actually do live. Our cellars are the receptacles of, and, the year round, filled with meat, fish, lard, butter, vegetables, and all sorts of other edibles, and no one will deny that putrefaction is always going on in these articles, and to such a degree, frequently that it is capable of being detected even by the sense of smell.

Liebig says that "the particles of miasm from cold meat alone, in a state of decomposition are capable of communicating consumption! We fancy that our floors are a protection against this manufactory of foul air, but this is not so; all the lathing, and plastering, and floors which it is possible to interpose will not prevent this subtle poison from pervading every room in your house to the very attic, especially where you have woollen carpets and fire-places above the cellar,—the one facilitating its flow through the millions of pores of the flooring by capillary attraction, and the other by a direct suction or draught upwards from story to story of your house.

But what must we think of the intellect of people, who, in addition to this poisoning by inches, go into the thing at wholesale by actually supplying a hot air stove, with the air from the cellar heating it, (which renders it ten times more virulent) and forcing it up into every room in a dwelling!!! A few, fancying themselves a good deal wiser than their neighbours do bring a few square inches of the *external* air, taken from the surface of the ground, to their hot air stove. This practice is little better than the other; for here they get pure carbonic acid gas—especially at night, and during calm weather. Providence has ordered that this portion of the atmosphere should be heavier than any of the others in order that vegetation may have the full benefit of that which is its very life; and the fact is notorious with scientific men, that so near the density of water does this become that it can, at times, be poured out of a tumbler. And this is the mate-

rial with which many respectable and intelligent men fill their dwellings!!! So that besides this miasm engendered in your cellars, generated by the decomposition of all these edibles, they are the receptacles of constant streams or carbonic acid gas pouring in at the windows.

To the breathing of this destructive matter may fairly be attributed more than half the disease that flesh is heir to—certainly all those of a pulmonary and cutaneous nature, whose origin is the impurity of the blood.

From its greater gravity this portion of the atmospheric air is always found near the surface of the earth, and every cave, well, hole, and nook is filled with it, as also every part of every building, which is so situated as to lie beyond the influence of winds and other motion of the air—such as cellars—between joists, and hollow walls, &c. As proof of all this, witness the numberless instances of deaths from descending into wells and mines. So filled is the space between the joists of any dwelling with this gas that it will immediately extinguish a candle. It is a well authenticated fact that all our Indian tribes are scrofulously affected, from the oldest to the youngest, and a great majority of them die of consumption; what but the breathing of this fluid,—lying, as they do, upon the earth, causes this contamination of the blood? A disease called Elephautiasis—a species of leprosy, I believe, has, for generations out of mind, affected the inhabitants of Labrador, and indeed part of New Brunswick.

These people burrow in the earth! What causes scurvey on board of ships but the breathing of the air within their holds? It is but now that we have the awfully appalling account that three-fourths of the population of—the Canary Islands have been swept away by cholera. Can any one doubt that sleeping in the open air, as they do, amongst their grape vines, which, must, from their luxuriance, attract, so great a quantity of carbonic acid gas, is the cause of this unheard of mortality? I have no doubt at all that the breathing of this gas, is the immediate cause of cholera. We all know that elevated situations are more healthy than low ones—and that this disease is, as a general rule confined to the latter. Who can doubt this after one moment's reflection upon the course which the cholera took in 1832 and 1834 up the valley of the St. Lawrence and down the valley of the Mississippi and its tributaries, in which latter localities it remains to this day committing its greatest ravages in the lowest flats and in the most populous towns. If the inhabitants of this great valley from St. Louis to New Orleans would but ventilate their dwellings with air from strata

twenty feet above the level of the surface of the ground, or if they would live, or even sleep in the upper part of their houses during the hottest season, they would find great relief.

Now if this be true that the immediate surface of the earth is, as a general rule, covered with air destructive to man, how can any one of intelligence any longer permit his dwelling to be cursed with hot air machinery? If you have a cage of birds in a room heated in this way, they languish and die; flowers will wither and decay; the members of the family will very soon complain of headaches and coughs preceded by a dryness of the throat and very frequently bowel complaints. In short, it is a species of suicide, and that not confined to the present generation unfortunately, but laying the foundation for a line of diseased offspring, providentially not a long one.

The simple remedy for all this evil is merely a little variation in our mode of building, so as to ventilate our dwellings with air from strata 8 or 10 feet from the surface of the ground in this part of North America, ensuring a constant circulation of about fifteen hundred cubic feet of air per minute through an ordinary dwelling house. This is an operation so simple that the most stolid mechanics cannot fail to understand it after seeing it once done.

I would cheerfully here give a description of how the building is to be put up, but it is not possible to do so by writing; nothing but drawings and models will be sufficient adequately to convey the mode of operation, simple as it is, to the understanding.

I do not object to fire-places or stoves, *but then there must be ventilation with them*, and the ventilating air must, in cold weather, be warmed, not heated, be carried off downwards, and circulate between the joists of the first floor. Thus the cold, nine-tenths of which comes into our lower rooms from under the base, and through and between the floor boards, is kept *below the floor*, the floor is warmed by the departing warm air, the miasm of the cellar can never reach the inmates of the house; the dust of carpets is kept below breathing distance, and also carried away under the floor, and the building kept warm with half the fuel that would be necessary for an upward ventilation.

*But then a house must be built for it.* This is so simple that it will entail little or no greater expense than our ordinary mode of building. All that is required is that it must be understood. The Architect should be able to make a house breathe, and must understand its physiology as a surgeon does that of the lungs of a human being. It is to be hoped that some of our Architects

will, ere long, muster sufficient energy to shake off the thralldom, in which they are held by their old rusty rules in defiance of all science and even common sense, and boldly adopt a system of building which will ensure health, as well as ornament, which is but of secondary importance.

Upon a matter of so much consequence it is strange that none of our public functionaries have taken the trouble to make enquiry into the subject of ventilation, which is just now engaging the attention of so large a portion of the North American public. I say North American, because it is in cold climates where the ventilation of buildings is most required, and where, consequently, enquiry upon that subject will naturally commence.

So alarmingly great has the mortality in our public places of confinement become that it has, upon several occasions, called forth the mad-reversions of the *Press*; yet no effort appears to be making to meet the evils of a putrid atmosphere in which the unfortunate inmates are literally smothered. Our Normal and Common School houses too, I believe, are to be heated upon the "hot air principle". All I can say to this is to advise every parent, who has any regard for the health of his children, to keep them away; much better that our offspring should have health without education than education without health.

I am, Gentlemen,

Your obedient servant,

H. RUTTAN.

Cobourg, 1st Nov. 1851.

#### THRASHING MACHINES IN AUSTRALIA.

A letter from Anstralia mentions that for two or three years, at least, a machine has been in use for thrashing the grain out of the standing corn without waiting for the usual process of reaping. The letter says—"We have taken off all our wheat crop, forty acres for myself, and about forty-five acres for Alexander, and fifty-two acres for others, with two teams of bullocks, eight each, one man to steer, and two boys to drive. We can reap and thrash eight or nine acres per day, in good, hot weather; it is certainly an excellent machine for such a climate as this. We paid £70 for the machine. There are light machines made for horses, but ours is a strong, substantial article, and is drawn by bullocks and a chain attached to the near corner. There is a comb in front of about 4½ feet wide, the teeth of which are only wide enough to take in the straw below the ears; a drum works on the back end of the comb, thrashing out the wheat, and throws it into the machine. We keep the winnowing machine going at the end of the field, and by this means we have the wheat ready for the market at once. The straw, of course, is left in the field, but that is not much regarded in this country, most people burn it, but when the weather is very hot and dry it can be easily harrowed off."

The, New Agricultural Bill.

AN ACT,

To provide for the better organization of Agricultural Societies in Upper Canada.

[August 30th, 1851.]

*Preamble.* Whereas by an Act of the Legislature passed during the now last Session, provision was made for the establishment of a Board of Agriculture in Upper Canada; And whereas to enable the said Board to accomplish the objects for which it was established, it is necessary to reorganize the Agricultural Societies of Upper Canada, and to provide a uniform system for their more efficient working: Be it therefore enacted, by the Queen's Most Excellent Majesty by and with the advice and consent of the Legislative Council, and of the Legislative Assembly of the Province of Canada constituted and assembled by virtue of and under the authority of an Act passed in the Parliament of the United Kingdom of Great Britain and Ireland and intituled, *An Act to re-unite the Provinces of Upper and Lower Canada, and for the Government of Canada, and it is hereby enacted by the authority of the same.*

§ *Vict. c. 54.* That the Act of the Legislature passed in the eighth year of her Majesty's Reign, intituled, "*An Act for the encouragement of Agricultural Societies and Agriculture in Upper Canada,*" be and the same is hereby repealed.

COUNTY SOCIETIES.

*County Soci-* II. And be it enacted, That a County *ties how or-* Agricultural Society may be organized *ganized.* in each of the Counties of Upper Canada, whenever fifty persons shall become members thereof, by signing a declaration in the form of the Schedule A, to this Act annexed, and subscribing each not less than five *skill* shillings annually to the funds of the said Society.

*Objects of* III. And be it enacted, That the ob- *County and* *ject of the said Societies, and of the* *of Branch* *Township or Branch Societies in con-* *Societies.* *nection therewith, shall be to encourage* *improvement in Agriculture, by hold-* *ing meetings for discussion, and for hearing lectures* *on subjects connected with the theory and practice of* *improved husbandry; by promoting the circulation* *of the agricultural periodicals published in the Pro-* *vince; by importing or otherwise procuring seeds,* *plants and animals of new and valuable kinds; by* *offering prizes for essays on questions of scientific* *inquiry relating to agriculture; and by awarding* *premiums for excellence in the raising or introduc-* *tion of stock, the invention or improvement of agri-* *cultural implements and machines, the production of* *grain and all kinds of vegetables, and generally for* *excellence in any agricultural production or opera-* *tion; and also by the acquisition and cultivation by* *any such County Society of a model Farm, if deemed* *advisable by such Society, and it shall not be lawful* *to expend the funds of the Societies, derived from* *subscription of members, or the public grant, for an;* *object inconsistent with those above mentioned, and* *that the directors of every such County and Township* *Society shall have full power from time to time to* *make, alter, and repeal By Laws and rules for the* *regulation of such Society and the carrying out of its* *object.*

*Annual meet-* IV. And be it enacted, That the said *ings, and* *officers.* Societies shall hold their Annual Meetings in the month of February in each year, and shall, at such meeting, elect a

President, two Vice-Presidents, a Secretary and Treasurer, and five Directors.

V. And be it enacted, That the Presidents of the several Township Agricultural Societies, within the County, shall in addition to those before mentioned, be *ex officio* Directors of the County Society; and the said officers and Directors shall and may, for the year next following the annual meeting, exercise all the powers vested in the County Society by this Act.

*Presidents of Township Societies to be Directors.*

VI. And be it enacted, That the meetings of the officers and Directors shall be held pursuant to adjournment, or called by written notice to each, to be called by authority of the President or in his absence the senior Vice-President at least one week before the day appointed; and at any such meeting five shall be a *quorum*.

*Meetings how called, &c.*

VII. And be it enacted, That the said officers and Directors shall, in addition to the ordinary duties of management, cause to be prepared, and shall present at the Annual Meeting, a report of the proceedings during the year, in which shall be stated the names of all the members of the Society, the amount paid by each set opposite his name, the names of all persons to whom premiums were awarded, the amount of such premiums respectively, and the name of the animal, article or thing in respect of which the same was granted, together with such remarks upon the agriculture of the County, the improvements which have been, or may be made therein, as the Directors shall be enabled to offer. There shall also be presented to the said Annual Meeting, a detailed statement of the receipts and disbursements of the Society during the year; which report and statement, if approved by the meeting, shall be entered in the Society's journal, to be kept for such purposes, and signed by the President or a Vice-President, as being a correct entry; and a true copy thereof, certified by the President or Secretary for the time being, shall be sent to the Secretary of the Board of Agriculture, on or before the first day of April following.

*Annual report to be made and what it shall contain.*

*Statement of accounts.*

*during the*

*Report and statement when approved to be sent to the Board of Agriculture.*

VIII. And be it enacted, That the County Society shall receive the Reports of the Township or Branch Societies, and shall transmit them, along with its own Report, to the Secretary of the Board of Agriculture, with such remarks thereon as may enable the said Board to obtain a correct knowledge of the progress of agricultural improvement in the County.

*County Society to receive and transmit reports of Township Societies.*

IX. And be it enacted, That it shall be the duty of the said officers and Directors to answer such queries, and give such information, as the Board of Agriculture may, from time to time, by circular letter or otherwise, require, touching the interests or condition of agriculture in their County; and generally to act, as far as practicable, upon the recommendations of the said Board.

*Officers and Directors to answer queries of Board of Agriculture.*

TOWNSHIP SOCIETIES.

*Township Societies how organized.* X. And be it enacted, That a Township or Branch Agricultural Society may be organized in each Township of any County, or in any two or more Townships together, whenever a sufficient number of persons shall become members, by signing a declaration in the form of the Schedule A, to this Act annexed, and subscribing, each, not less than *five shillings* annually to the funds thereof, to raise an aggregate amount of not less than *seventeen pounds ten shillings*.

*Annual meetings, and officers.* XI. And be it enacted, That the said Societies shall hold their Annual Meetings in the month of January in each year, and shall elect a President, Vice-President, Secretary and Treasurer, and three or not more than nine Directors.

*Annual report to be made.* XII. And be it enacted, That the said officers and Directors shall prepare and present to the Annual Meeting of the Society, a Report of their proceedings during the year, in the same manner as hereinbefore directed for County Societies, and containing information under the same heads, and shall transmit a true copy thereof, certified by the President or Vice President, to the Secretary of the County Society, in time for the annual meeting thereof in the month of February.

GENERAL PROVISIONS.

*Exhibition in any Township having a Society.* XIII. And be it enacted, That when a County Society and Township Societies are organized in any County, it shall be lawful for the Directors of the County Society, if they think proper, to appoint the Exhibition of the County Society to be held in any Township in the said County; and the Society of the said Township (or, if such Township be united with another or others, to form a Society, the Society of such Townships,) shall not hold a show for that year, but the same shall merge in the exhibition of the County Society, and the funds of the Township or Branch Society, for that year's exhibition, shall be paid over to the Treasurer of the County Society; Provided that the said Township or Branch Society shall not forfeit any right to a share of the Public Grant for not making a full report for such year.

*Government grant to be paid to any County Society on certificate of Secretary of Board of Agriculture.* XIV. And be it enacted, That when the Chairman and Secretary of the Board of Agriculture shall certify to the Governor of this Province, that any County Society has sent to the said Board Reports and statements as required by this Act, for the year then last previous, and also certify that the Treasurer or other officer of the said Society, has transmitted to the said Board an affidavit (which may be in the form of the Schedule B, to this Act annexed, and may be sworn to before any Justice of the Peace, who is hereby authorised to receive the same), stating the amount subscribed for that year, and paid to the Treasurer of the County Society by the members thereof, and by the several Township Societies of the said County, it shall be lawful for the Governor to issue his warrant in favor of such County Society, for a sum to be taken out of any unappropriated moneys in the hands of the Receiver General, equal to three times the amount appearing by the said affidavit to be then in the hands

*Proviso:*

of the Treasurer: Provided, that no amount grant shall be made unless *twenty-five pounds* be first subscribed and paid to the Treasurer; and provided that the whole amount granted to any County Society shall not exceed *two hundred and fifty pounds* in any year, and provided also that it shall not be necessary that any County Society should have sent Reports and statements as above mentioned to the Board of Agriculture in order to enable such Society to obtain the Government allowance under this section for the present year 1851, nor shall it be necessary in order to enable any County Society to obtain such allowance for the first year, in which it shall be established that it should have sent such reports and statements to the said Board for the previous year, but it shall in either of the said cases be sufficient that such Society has complied with the other requirements of this section.

XV. And be it enacted, That every Township or Branch Society, organized according to this Act, and sending a Report of its proceedings to the County Society as hereinbefore required, shall be entitled to a share of the grant to the County Society, in proportion to the amount which shall have been subscribed by the members of such Township or Branch Society, and deposited with the Treasurer of the County Society, on or before the first day of May in each year: and the sum so deposited by any Township or Branch Society shall be repaid, along with its share of the public grant, as soon as the said grant shall have been received by the County Society; Provided always, that not more than one-half of the sum granted to any County Society shall be subject to division among Township or Branch Societies.

XVI. And be it enacted, That the Treasurer or other officer of any County, Township or Branch Society, who shall certify that a subscription, or any sum of money has been paid to him for the Society, when it has not been so paid, or who shall pay back any such subscription before the public grant is divided, shall forfeit and pay to Her Majesty the sum of *ten pounds* for every such offence, and shall be guilty of a misdemeanor.

XVII. And be it enacted, That for, and notwithstanding any thing in the tenth section, or any other part of the Act passed in the now last session and entitled "An Act to establish a Board of Agriculture in Upper Canada; the Vice President, or in his absence the Secretary or Treasurer of any County Society, may, in the absence of the President of such County Society, act in his stead as a Director of the Agricultural Association of Upper Canada." *Section 10, of 13 & 14 Vict. c. 73, amended.*

XVIII. And be it enacted, That it shall be lawful for the Municipal Council of any County in Upper Canada, from time to time, if they see fit, to grant aid from the County Funds to the Agricultural Association of Upper Canada. *Aid from the County funds.*

XIX. And be it enacted, That the said Board of Agriculture, and the several County Societies organized according to the provisions of this Act shall be and become bodies corporate with power to acquire and hold land, and personal property and to sell, lease, or otherwise

*Corporate powers.*

dispose of the same, provided that the real estate to be held by the said Board shall at no time exceed in value the sum of five thousand pounds and the real estate to be held by each of the said County Societies shall at no time exceed in value the sum of one thousand pounds.

Word "County" in this Act shall mean and include union of Counties.

SCHEDULE A.

We, whose names are subscribed hereto, agree to form ourselves into a Society, under the provisions of the Act of the Legislature, (Title and date of this Act.) to be called the "County (Township or Branch, as the case may be) Agricultural Society of the County of ( ) (or Township of ( )) and we hereby severally agree to pay the Treasurer yearly, while we continue members of the said Society, (any member being at liberty to retire therefrom, upon giving notice in writing, at any time before the Annual Meeting, to the Secretary of his wish so to do) the sums set opposite to our respective names, and we further agree to conform to the rules and by-laws of the said Society.

NAME.	£.	s.	d.

SCHEDULE B.

County of I, A. B., of the Township of to wit: } Treasurer of the County Agricultural Society of ( ), make oath and say, that the sum of ( ) has been paid into my hands since the first day of February last, by the Township Agricultural Societies of the said County, as and for the members' subscription for this year; and the sum of ( ) has been paid into my hands, as subscriptions for this year, by members of the said County Society; and that the said sums, making in the whole sum of ( ), now remain in my hands, ready to be disposed of according to law.

A. B.

Sworn to before me this day of A. D. 185 . Justice of the Peace for the County of

STEAM PLOUGHING.

A further experiment was privately made on the Grimsthorpe Estate, near Bourne, on Thursday last, of the possibility of adopting the power of steam as an instrument in turning and pulverising the soil. The field selected for the purpose had grown a wheat crop, and was of good malleable soil. The engine—a beautiful piece of machinery—was placed on a moveable tram road at the end of the field. By way of testing the relative powers, the plough, a double one, with reversed shares and coulters, was drawn in one direction by

horses, and contrarily by steam. The horses, four very powerful animals had much labor to drag the implement, and that only at a very slow pace; whilst the engine of 26-horse power, hurried it back as fast as a man could fairly walk to conduct the plough. After several "bouts" a subsoil plough was attached at gauge of 9 and afterwards 12 inches. This additional burden, which the horses could not possibly have drawn, evidently steadied and improved the motion, and left the work in a most satisfactory manner. Harrows were afterwards appended with an equally pleasing result.—The ploughing took place across old land, which showed in some places considerable dips. Two engines placed parallel at each end of the field, without difficulty, with only a double plough, complete four acres of land in ten hours, and, if required, subsoil it too. The work is more effectively performed, for it must be borne in mind that land ploughed by steam has this great advantage—that there are no indentations or basins left as when ploughed by horses (from the feet), a matter of great importance on clay soils, and where subsoiling is required, an advantage that cannot be too highly appreciated. The plough used on this occasion was designed and manufactured by an ingenious mechanic named Downes, living at Ryhall, near Stamford, who has for some years deservedly been held in esteem as a ploughman and ploughmaker, in the midland counties.—*Stamford paper.*

THE ILLUSIONS OF A CUP OF TEA.

The tea-table, that charm of gossip and talk, the very cup itself which we are so often told "cheers but no inebriates," are not sacred from the invasions of rascally compounders, and when we fancy we are sipping our suchong the probability is that we are drinking essence of beech, elm, horse-chesnut, plane, fancy oak, willow, poplar, hawthorn, or sloe leaves, for all of these, in their turn, do we fill our caddies. In 1843 there were no less than eight manufactories in London, and as many in the provinces; but the excise grew very active and put most of them down. The leaves were brought up at coffee-houses at 2d. per lb., mixed with a solution of gum, re-dried, and then coloured with rose pink and black lead to "face" them, a bloom being sometimes also imparted with a vegetable red mixed with carbonate of lime. But though there not so much ingenuity now exercised in the home market, we are not a whit the safer, for the Chinaman with his pigtail is just as great a rogue as his barbarian brother in England. Out of thirty-five samples of black tea lately tested upon their arrival from China, twenty-three consisting of congous and suchongs, were genuine, while twelve, which consisted of scented caper, chulan, or black gunpowder, were adulterated. This adulteration consisted in the leaves having been faced, so as to improve the appearance of the teas, with black lead, and iridescent powder resembling mica, indigo, and turmeric. As for green tea, there is no such thing by nature, but plenty by art. Of thirty samples tried, all were found to have been adulterated. Five consisting of what is called "lie" tea, which is simply tea-dust and sand made up with rice water; one was composed of paddy husk and other substances; and one was a mixture of "lie" tea and spurious leaves of other plants. Every one of the thirty sorts was artificially glazed or coloured, Prussian blue, indigo, turmeric powder, and China clay being the substances employed. In no instance amongst all these trials was a single leaf discovered possessed of a green colour better than was produced by artificial means. No wonder people can't go to sleep after drinking green tea, as for "the nerves," it's strange how they stand it all.

VITALITY OF SEED.

'Ion,' a Washington correspondent of the Baltimore Sun, in a letter to that paper says:

"I received last winter two seeds, said to be wheat, which were found in the folds of the Egyptian mummy which Mr. Giddon unrolled in Boston. The mummy was supposed to be one of the Pharaohs. It proved to be a priestess, and to be more than thirty centuries old.

"The seeds were shaped something like pearl barley, and of that size, and were of a dark tinge, as if colored by the same preparation which had been used in the process of embalming.

"I planted the two seeds in a flower pot in the spring. They germinated, grew finely, and one of the plants bears a hundred or more grains. The other is more backward, and is still in flower. The leaf resembles maize. It may be a species of millet. The land of Egypt—the granary of ancient times—must, of course, have been cultivated with grain, which, for that climate and soil, was very productive and nutritious. It was hardly worth the while of the priestess to have taken with her these two small emblems of the resurrection, unless they were valued grains.

"A bulb was once taken from the hand of a mummy and planted, and grew up a beautiful dahlia. In another instance a few grains of wheat were found, which is now cultivated in England, and called mummy wheat. I shall call mine *mummy millet* until I find some appropriate name."—*State Republican*.

INDUSTRIAL EXPOSITION, 1851.

The Premiums awarded at this Exhibition are all Bronze Medals, of admirable design and workmanship, calculated to perpetuate the memory of the Exhibition and the merit of the successful exhibitors through ages. They are of two kinds—the Jury Medal, awarded by the several Juries, to the articles of decided merit exhibited in their respective classes; and the Council Medals, awarded by the Council of Presidents of the several Juries, on the recommendation of those Juries respectively to their several sections, by these to the Council of Presidents, and there approved and ratified. It was intended that this Medal should be given only for original Inventions or Discoveries of decided utility and merit; but the grounds on which it is conferred have been practically and considerably widened in the course of the investigations and awards. *One hundred and sixty-nine* only of these 'Council Medals' have been awarded in all—distributed among the several Nations represented in the Exhibition, as follows:

To Great Britain,.....	79
To Germany,.....	12
To Austria,.....	4
To Belgium,.....	2
To Tuscany,.....	2
To Spain,.....	1
To France,.....	56
To United States,.....	5
To Russia,.....	3
To Switzerland,.....	2
To Holland,.....	1
To Rome,.....	1
To Turkey,.....	1

—*N. Y. Tribune, Oct. 15th.*

THE APPLE CONTEST.—A few days ago, an apple was sent to the *Baltimore Herald* office, which weighed 10 oz. and was 1½ inches in circumference. Instantly

the *Hamilton Spectator* announced the receipt of a couple weighing 22 oz. each. The good folks of Dumfries, jealous of their reputation for prize wheat, fanned themselves challenged to the contest, and in dropped three apples into the office of the *Dumfries Reporter*, weighing nearly 24 oz. each. Hamilton again took alarm, and four apples made their appearance on the table of the *Gazette*, weighing respectively, 26 oz., 25½ oz., 23½ oz., and 24 oz. each.—*Globe*.

HYDROPHOBIA.

A case of death from the bite of a mad dog at Banbridge, in Ireland, an account of which appears in a Dublin journal, induces us to publish the following from the last *New York Sun*. Of course we cannot tell whether the proposed cure would be efficacious or not, but the possibility of its being so, in such a dreadful emergency, is a sufficient reason for making it known.—

CURE FOR HYDROPHOBIA.—Mr. James A. Hubbard, of Boone county, Illinois, in a letter to the *St. Louis Republican*, says:

"Eighteen years ago, my brother and myself were bitten by a mad dog. A sheep was also bitten at the same time. Among the many cures offered for the little boys, (we were then ten or twelve years old.) a friend suggested the following, which he said would cure the bite of a rattlesnake:

"Take the root of common upland ash, commonly called black ash; peel off the bark, and boil it to a strong decoction, of this drink freely. Whilst my father was preparing the above, the sheep spoken of began to be afflicted with hydrophobia. When it had become so fatigued from its distracted state as to be no longer able to stand, my father drenched it with a pint of the ash root ooze, hoping to ascertain whether he could depend upon it as a cure for his sons. Four hours after the drench had been given, to the astonishment of all, the animal got up and went quietly with the flock to graze. My brother and myself continued to take the medicine for eight or ten days—one gill three times a day. No effects of the dreadful poison were ever discovered on either of us. It has been used very successfully in snake bites to my knowledge."

A VALUABLE EXPORT.—The total quantity of dried codfish exported from the port of St. John's, N. B., from the 1st Jan. 1851 to the 16th Sept. of the same year, amounted to 309,994 quintals—the value of which was probably over £200,000. This is of course entirely independent of the immense number of salmon, oil, seal skins, &c., which form such large items in the export trade of St. John's.—*Nova Scotiam, Oct. 1.*

PEACHES.—The *New York Post* of last evening says: "Peaches are becoming abundant in the city received from Delaware. During the past two days about 2000 baskets have arrived over the Camden and Amboy Railroad. The price ranges from \$1.25 to \$2.00 the basket.

TO TAKE INK OUT OF LINEN.—Printers' and clerks' wives will learn with pleasure, that to take a piece of tallow, melt it, and dip the spotted part of linen into the melted tallow, the linen may be washed, and the spots will disappear, without injuring the linen.

It is estimated that the city of New York pays \$10,000 a day for cigars, and \$8,500 a day for bread. It is also computed that 20,000 persons, every year, in America, go to the grave from the use of tobacco.



### Directions for the Cultivation of Flax.

The following plain and simple directions with respect to the preparation of the land and cultivation of flax, are extracted from the valuable directions on the subject, compiled by the committee of the Royal Irish Flax Society from a mass of information obtained by the society, and their agriculturists during the last ten years. Some very useful instructions on the same subject are contained in a small and very valuable pamphlet called "The Flax Grower," by G. Nicholls, Esq., late secretary to the Poor Law Board, published by Knight of Fleet street; in the various publications of Mr. Warnes, by Ridgway; and in "Flax: its Cultivation and Management," by E. F. Deman, late technical instructor to the Royal Flax Society; also published by Ridgway.

**SOIL AND ROTATION.**—By attention and careful cultivation, good flax may be grown on various soils; but some are much better adapted for it than others. The best is sound, dry, deep loam, with a clay subsoil. It is very desirable that the land should be properly drained and subsoiled; as, when it is saturated with either underground or surface water, good flax cannot be expected. In Belgium, it invariably follows a corn crop—generally oats; and in this country (Ireland) where oats is such a usual crop, the same system might be profitably pursued; but it must be understood, that it is only from oats following a green crop or old lea, and never after two or three succeeding crops of oats, which bad practice still prevails in some districts. Except on very poor soil, a better crop will be produced after grain, and the double benefit of the grain and flax secured. If old lea be broken up, and potatoes planted, followed by a grain crop, a very fine crop of flax may be obtained in the ensuing year.

**PREPARATION OF THE SOIL.**—One of the points of the greatest importance, in the culture of flax, is by thorough-draining, and by careful and repeated cleansing of the land from weeds, to place it in the finest, deepest, and cleanest state. This will make room for the roots to penetrate, which they will often do to a depth equal to one-half the length of the stem above ground. After wheat, one ploughing may be sufficient on light, friable loam, but two are better; and on stiff soils, three are advisable—one immediately after harvest, across the ridges, and two in Spring, so as to be ready for sowing in the first or second week of April. The Spring ploughing should be given some time before sowing, to allow any seeds of weeds in the land to vegetate, and the harrowing in of the flaxseed will kill them, and save a great deal of after weeding. Following the last harrowing, it is necessary to roll, to give an even surface and consolidate the land, breaking this up again with a short-toothed or seed harrow, before sowing, which should be up and down, not across the ridges or anglewise.

**SOWING.**—The seed best adapted for the generality of soils is Riga, although Dutch has been used in many districts of county, for a series of years, with perfect success. In buying seed, select it plump, shining, and heavy, and of the best brands, from a respectable merchant. Sift it clear of all the seeds of weeds, which will save a great deal of after trouble, when the crop is growing. This may be done by fanners, and through a wire sieve, twelve bars to the inch. Home-saved seed has produced such excellent crops, of late, that is strongly recommended that every farmer should only sow, each year, as much foreign seed as would produce a sufficient quantity for his flax crop of the following season. The thinner

portion of the crop would be the best for this purpose, as, when flax grows thin, it produces much seed. This plan, besides the saving effected in the price of foreign sowing seed, would effectually secure the farmer from any danger of loss from fraudulently-made-up seed. The proportion of seed may be stated at three and a-half imperial bushels to Irish or Plantation acre; and so on in proportion to the Scotch or Cunningham, and the English or Statute acre. It is better to sow too thick than too thin; as, with thick sowing, the stem grows tall and straight, with only one or two seed capsules at the top; and the fibre is found greatly superior, in fineness and length, to that produced from thin-sown flax, which grows coarse and branches out, producing much seed, but a very inferior quality of fibre. After sowing, cover with a seed harrow going twice over it—once up and down, and once across or anglewise: as this makes it more equally spread and avoids the small drills made by the teeth of the harrow. Finish with the roller, which will leave the seed covered about an inch—the proper depth. A stolon crop of rape or Winter vetches, or of turnips of the stone or Norfolk globe varieties, may be taken, after the flax is pulled. Rolling the ground after sowing is very advisable, care being taken not to roll when the ground is so wet that the earth adheres to the roller.

**WEEDING.**—If care has been paid to cleaning the seed and soil, few weeds will appear; but if there be any they must be carefully pulled. It is done in Belgium by women and children, who, with coarse cloths round their knees, creep along on all-fours. This injures the young plant less than walking over it (which, if done, should be by persons whose shoes are not filled with nails.) They should work, also, facing the wind, so that the plants laid flat by the pressure may be blown up again, or thus be assisted to regain their upright position. The tender plant, pressed one way, soon recovers; but, if twisted or flattened by careless weeders, it seldom rises again.

**PULLING.**—The time when flax should be pulled (if intended to be treated for flax cotton is, when perfectly ripe: if it is desired to obtain a fine fibre suitable for the present flax manufacturers,) the best time for pulling is, when the seeds are beginning to change from a green to a pale brown color, and the stalk to become yellow, for about two-third of its height from the ground. When any of the crop is lying, and suffering from wet, it should be pulled as soon as possible, and kept by itself. If the ground has been thoroughly drained, and laid out evenly, the flax will be all of the same length. It is most essential to take time and care to keep the flax even, like a brush, at the root ends. This increases the value to the spinner, and, of course, to the grower, who will be amply repaid, by an additional price, for his extra trouble.

The following directions with respect to the removal of the seed from the flax, are given in the *Flax Grower*, by G. Nicholls, Esq. :—

"The separation of the seed is usually effected by beetles or blocks of wood about nine inches long and four inches square, into which a handle of convenient length, and somewhat bent, is fixed, and with which the seed is readily beaten out. It may also be removed by simply drawing the flax stalks through a row of iron spikes set upright in a wooden frame, and so close to each other as to catch and separate the bolls containing the seeds, as the stalks are drawn through."

The flax may be stacked when pulled perfectly

ripe and dried, either before or after the removal of the seed, as may best suit the convenience of the grower.

### SIR JAMES GRAHAM ON AGRICULTURE.

The annual exhibition of stock and implements, in connection with the East Cumberland Agricultural Society, was held at Carlisle on Thursday, and, after the inspection, a party of 150 gentlemen sat down to dinner, under the presidency of Sir James Graham. In proposing the principal toast of the evening, the right hon. baronet made a interesting speech on the agricultural prospects of the county, and particularly of Cumberland. Referring in the first place to the American reaping machine, a specimen of which had been exhibited in the morning, he characterised it as "an instrument of great promise," adding: "It is true, it was made on the other side of the Atlantic, and for that very reason I think it is entitled to especial attention in England. It is the work of those who I regarded as distant brothers employed in the same occupation, and contending who shall bear off the palm of success.—This is the rivalry which I should wish to see between the two nations. We are brethren by nature and brethren in our love of independence and free institutions.—Their institutions stand upon the same bases as our own, and any suggestions coming from that quarter are entitled to our respect and consideration." He proceeded to recommend that more attention should be paid to grazing, and less to ploughing, supporting his advice by the following general considerations. "Let me remind you that in Great Britain we are in a very artificial state. These little islands are densely inhabited, and no less than £100,000,000 is embarked in the four textile fabrics, cotton, silk, wool, and flax. Two of these raw materials are beyond our reach. Cotton and silk we cannot produce; but we can produce wool, and we can produce flax; and I say it is worthy of the consideration of the agriculturists of this country to adapt their land to the growing wants of the community in which we live, and to place our country, as far as in us lies, in the situation of not being exclusively dependent for the supply of such raw materials as wool and flax; not exclusively, I say. Observe well, no article has gone on so steadily advancing in price as wool; no article has paid the farmer so well in the shape of produce as wool; and the sheep which produce the wool are, in my opinion, under proper management, the key-stone of the improved cultivation of the soil."—With regard to the other raw material, flax, he had a strong opinion that, with the great increase in the demand for British linen, they might increase the cultivation of flax on second-rate soils with the utmost advantage. Many years ago the growth of flax, in small quantities, on each farm was almost universal, and, to a limited extent succeeded. "Circumstances," said the speaker, "are now not altered. It was not then profitable on the large scale, but now the demand for flax for manufacturing linen alone is almost boundless. Its exportation is immense, and a great question is pending but it is unsettled, whether flax may not be favourably mixed with wool and cotton in textile fabrics. If that should turn out successful, then the growth of flax will be prudent on the part of agriculturists." After adverting to the practical difficulties in the way of the preparation of the flax, and expressing a hope that they would be surmounted by the invention of M. Claussen, Sir James said, "Such is the enterprise the skill, and I would almost say the patriotism, of the manufacturing interest of this country—not without preference to gain which is the real incentive of all improvement—that if

you can show that any such process will pay the manufacturer, that manufacturer of the raw material will establish a mill in the neighborhood; and I hold it to be one of the duties of landlords to ascertain whether this mode of dealing with flax be not feasible, and, if it be feasible, to make an effort to introduce in their neighborhood the machinery and manufacture requisite for the extended growth of so important and useful a crop as flax."

**DURABILITY OF WOOD.**—The piles under the London bridge have been driven five hundred years, and on examining them in 1846, they were found to be a little decayed. Old Savoy-place, in the City of London, was built 650 years ago, and the wooden piles, consisting of oak, elm, beech, and chestnut, were found upon recent examination, to be perfectly sound. Of the durability of timber in a wet state, the piles of a bridge built by the Emperor Trajan over the Danube affords a striking example. One of these piles was taken up, and found to be petrified to the depth of three-fourths of an inch, but the rest of the wood was not different from its former state, though it had been driven 1600 years.

**MACHINE FOR MAKING BLINDS.**—Mr. Daniel H. Thompson, Springfield, Mass., has taken measures to secure a good improvement in machinery for manufacturing blinds for windows, &c., whereby the different operations required upon the several parts composing the blind are conducted at the same time. This is done by platforms, the motion being communicated to them by cranks which operate the boring bits, the cutters for forming the tenons, the points for pricking wire holes, all of which are done so systematically, that we may expect a considerable reduction in the price of blinds by this invention. It is a useful improvement.—[Scientific American.]

**A SINGULAR OBJECT.**—One of the most singular mechanical inventions displayed at the world's Fair, is the model of a man, by Count Danin. It represents the figure of a man five feet high, in the proportion of the Apollo, and from that size the figure can be increased in all its compartments to six feet eight inches. It is intended to facilitate the clothing of an army; and it is so ingenious that the emperor pardoned and recalled Count Danin, who is a Pole, on seeing this result of many years' labour. The number of pieces composing this model is 7000.

**NATURE AND ART.**—An American countryman, fresh from the magnificent woods and rough clearings, was one day visiting the owner of a beautiful seat in Brooklyn, and, walking through a little grove out of which all the underbrush had been cleared, paths had been nicely cut and gravelled, and the rocks covered with woodbine, suddenly stopped, and, admiring the beauty of the scene, lifted up his hands and exclaimed, "This I like! this is Nature—with her hair combed."

**IT MAY BE USEFUL PRESENTLY.**—To render boots and shoes waterproof.—Mix carefully over a slow fire a pint of drying oil, two ounces of yellow wax, and a half an ounce of Burgundy pitch. Lay the mixture whilst hot, on the boots or shoes with a sponge or bit of flannel, and when dry lay it on again; repeat the operation until the leather becomes saturated. Let them be put away and not worn till they become perfectly elastic, when they will be found not only impervious to water, but soft, pliable and more durable.

## KNOWLSON'S COMPLETE FARRIER.

## SURFEITS.

*Continued.*

**CURE.** If we duly consider the nature of Surfeits, their cure will be much more easily performed. All allow that they rise from a bad state of the blood; but how is this to be remedied? By bleeding and purging. But this must be done in a very gentle manner. Take about a quart of blood, and the next day give the following ball.

- 1 oz. Sorotrine Aloes.
- 1 drachm of Calomel pp.
- 2 do Oil of Aniseeds.

Add as much lenitive electuary as will make it into a ball. Give plenty of warm water to work it off. Repeat both bleeding and physic in eight days; and when the last dose is wrought off. Give him six ounces of the cordial balls in a little warm ale. Also give a spoonful of the following powders every day in a mash.

- 4 oz. Flour of Brimstone.
- 4 do Crocus Metalorum.
- 4 do Nitre, in powder.

Mix all up well together. By persevering in the above method you may cure the most inveterate surfeit, and if any scabs or runnings appear in the skin, rub them with the following.

- 4 oz. Sulphur of Vivum.
- 2 do White Copperas.
- 2 do White Hellebore, in powder.

Mix these powders with churn-milk, rub the places affected well and the grievance will soon disappear. Sometimes a Surfeit settles in the legs, and they swell much and then break out and run very much. When this is the case, two taps put into the lower belly will be found of great use. Staling balls should be given every third day, and plenty of warm water to work them off with. Make the staling balls as follows,

- 1 oz. of White Rosin,
- 4 drachms of Castile Soap.
- 2 do Oil of Juniper,
- 2 do Camphor.
- 4 do Saltpetre,

Bray all well together into a paste, in a mortar, and form it into a ball. The above is only for one dose, but you may make as many as you think proper at once, and keep them for use. Give them at night and they will work off the next day. These balls are of great service in many of the disorders of horses, and some of the best staling balls yet found out.

By following the above directions, a cure will generally be performed. Sometimes in this disorder little knots break out, especially upon the hind parts of the horse, and these knots throw out a little matter. When this is the case, you must rub them with strong zæreucial ointment. Sometimes these little tubes, or pustules have living insects in them; but by rubbing them as I have just directed you, they will be destroyed, and the cure completed.

## THE HIDEBOUND.

This disorder is too often brought on by the horse being worked too hard, and badly kept; although this is not always the case. When the skin of a horse sticks so close to his ribs that it appears immoveable, the horse is said to be hidebound. But this is not properly a disease, but rather a symptom, being often caused by previous disorders, such as fevers, convulsions, surfeits, worms, or disorders of the kidneys or lungs.

**CURE.** As the hidebound may proceed from various causes, it is necessary to determine the cause, before such medicines can be applied as will remove it.

If we owe its origin to hard labour and want of food, rest and plenty will soon remove it. If it be caused by worms, worm medicine must be applied; or if it be left by any imperfectly-cured disorder, the following drink must be given.

- 2 oz. of Anniseeds, in powder.
- 2 do Ginger in powder.
- 1 do Grains of Paradise
- 2 do Mustard.
- 2 do Turmeric.

All to be powdered, and to be given in warm ale, fasting, and to fast two hours after. Give warm water two or three times. Bleeding, tapping, and physic are also necessary, when the hidebound is left by any disorder.

## THE MANGE.

This disorder is more shameful than dangerous, for you cannot go abroad with a scabbed horse without being hissed at, neither is it proper, for this disease is so infectious that every horse that may come near it will be in danger.

The mange is too well known to need a long description, though some have been mistaken and have taken a hot itching eruption for it.

**SYMPTOMS.** At first it is confined to the skin, but by long continuance it vitiates and pollutes the blood. The skin is generally thick and full of wrinkles, especially about the mane, the loins, and the tail; and the little hair remaining on those parts stands erect. The ears and eyebrows are commonly naked; and when the limbs are affected, they have the same appearance; but at the same time the horse is not raw, nor does the skin peel off as in a surfeit.

**CURE.** When the horse has been infected by another, the disorder is not so obstinate as when caused by starvation, for the blood will get to be in so bad a state. When you think a horse has got the Mange, apply the following where you think it needful.

- 4 oz. Sulphur Vivum,
- 4 do White Copperas,
- 4 do White Hellebore Root, in powder.

Mix all together in two quarts of churn milk, and rub the places well. By this method you may cure most scabs of short duration, but when once the mange has got great hold, it will require sharper treatment. Make the following for one horse.

- 4 oz. of Sulphur Vivum.

- 2 do White Hellebore Root, in powder
- 2 do Blue Stone Vitrol, in powder.
- 1 do Verdigrise, in powder.
- 4 do Flanders Oil of Bays.
- 3 gills of Whale Oil.

Mix all well together, and rub the horse well with it all over in the sun, if in summer, but before a fire if in winter. In summer you must also turn him out to grass after rubbing, but in winter keep him warm in the house. You must be careful to wash to wash your saddles and bridles, cart-gears, stands, mangers, racks, &c., with quick-lime and chamber-lice; for if you do not clean all that the horse may have used, the infection will remain. You will find the above a certain cure, if managed rightly, for I have cured hundreds with it, and I do not remember one instance of its failure.

At the same time give freely of flour of sulphur and liver of antimony; and if you have a number of horses infected, be sure to rub them all together.

Some people say that when a horse is rubbed for the scab he will infect others, but I am of opinion that he will not, neither do I remember an instance of it.

SPRAINS.

All kinds of sprains resemble each other. They are a relaxation of the tendinous fibres, from the muscular parts being overstretched.

A SPRAIN IN THE BACK.

Sprains in the back are mostly caused by over-weighting the horse, or by his loosing his hind feet on the side of a hill; and sometimes by putting him back too quickly. There is much difference between a sprain in the back and what is titled in the back. Sometimes a horse catches cold in his loins by having his clothes or his saddle taken off when he is hot, and being turned out of doors; and some horses are subject to Rheumatics, which make them lame in many places, and are generally taken for Strains.

To cure a pain in the back, first bleed pretty freely and then give the following drink.

- 1 oz. Tincture of Guaiacum
- 1 do Balsam Capivi,
- 1 do Oil of Juniper,

To be put into a quart of strong parsley-root tea; half to be given at night, half in the morning, and plenty of warm water to work them off.

Also lay a sheep's skin with the flesh side to his loins for six or eight hours, if he can bear it; and then turn the wool side to him, and let it stay on a day; when you take it off, sheet him well for fear of catching cold. Also make a plaster of the following.

- 2 oz. Oxyrosem.
- 2 do Paracellis.
- 2 do Red Dominion.
- 2 do Burgundy Pitch.

Melt all together and lay them on pretty warm and put a little wool clipped short on the charge while hot, and then pour on a little cold water to fasten the whole together. These are the best methods I am acquainted with,

A SPRAIN IN THE SHOULDER.

When the shoulder of a horse is sprained, he does not put out that leg like the other, but in order to ease it sets the sound foot firmly on the ground. When trotted in hand he forms a kind of circle, with his lame leg instead of putting it forward, and when he stands in the stable that leg is advanced before the other.

There is what is called a Shoulder-slip, which is worse than a Sprain. When this happens the horse can neither lift his leg nor put it forwards. You may know this by the shoulder-blade standing higher than the other; but to discern that you must make his stand on the lame leg, for the leg he stands on will always appear a little higher than the other. The flesh will also shortly waste away from the shoulder blade, which is a sure sign of a Shoulder-slip. When the accident has taken place, put a tap into the lame side of the animal's breast, and blow the shoulder full of wind with a pipe. When you have rinded the skin to put the tap in, hold the skin fast to the pipe, and blow the part you have rinded full, and let some one draw the wind up into the shoulder with the edge of his hand as far as the top of the shoulder-blade, and then put in the tap or rowel, and stop the hole up well with tow and salve. Give warm water for three days, and then open the place, stir the tap round, and rub the shoulder all over with the following liniment.

- 2 oz. Spirits of Wine.
- 2 do Sweet Oil.
- 2 do Spirits of Sal Ammoniac.

Shake them well together, rub the shoulder well with the mixture every third day for some time, and if the horse do not get better with three or four times rubbing, use the following.

- 2 oz. Oil of Turpentine.
- 1 do Oil of Origanum.
- 1 do Oil of Bricks.

Shake these up together, rub all on a time, and walk the horse about a little afterwards. When near the sea, swimming in the salt water is very proper, and I have known swimming in fresh water to be of great use.

A Sprain in the shoulder point requires nearly the same treatment as a slip but you need not blow it, When it is attended by inflammation, cooling mixtures, such as an extract of lead and water must be used. But when a swelling or an inflammation takes place, it is mostly caused by a hurt, or by a stroke from another horse. If there be no swelling, rub the shoulder point well with the following mixture every day.

- 1 oz. Oil of Peter.
- 1 do Oil of Amber,
- 1 do Oil of Spike.
- 1 do Oil of Bricks.

Shake these well together, and rub the shoulder point every other day. If the horse be not better, take

- 1 oz. Oil of Turpentine,
- 1 do Oil of Origanum.
- 1 do Oil of Swallows,
- 1 do Oil of Amber,

Shake these together, and rub the shoulder point well with them every third day; and if the horse continue lame, recourse must be had to blistering.

CANADIAN STOCK AT THE LATE NEW YORK STATE FAIR.

We observe the American Agricultural Press is quite eulogistic on Conadian Live Stock, exhibited at the Rochester Fair. The *Cultivator* remarks in reference to Short Horns:—There were several fine specimens from Canada, owned by Messrs. Fergusson, Wade, and others. Mr. Fergusson's roan bull *Halton*, and his red cow, and Mr. Wade's roan bull, *American Belted Will*, were among the very best animals in this class; and it was the opinion of many connoisseurs that Mr. Fergusson's cow was the finest Short-horn on the ground. \* \* \*

Mr. Gapper, of Canada, also exhibited several good Devons. One of his cows, own sister to the noted bull, Major, (who was bred by Mr. Gapper,) was one of the best of her class, and his young imported bull has some very superior points,—especially the general fullness and levelness of his back."

**SHEEP:**—"The Long Wools were quite numerous, but for the chief excellence of their specimens exhibited, we are sorry to say we are indebted to our Canadian brethren. The lots offered by Mr. Gapper, of Thornhill; Mr. Wade of Port Hope, and Mr. Miller of Pickering, were good specimens of Leicesters; and Mr. Miller's ewes, might almost be taken as standards for that breed." Canadian horses are mentioned in very high terms in several American papers.

In addition to the high authority of the *Cultivator*, we subjoin some remarks on the Honourable Adam Fergusson's bull, *Halton*, from a correspondent of our excellent contemporary, the *Rural New Yorker*, with the editor's note.

The other, was a splendid bull, owned by our Canadian friend, Adam Ferguson, Esq. He was four years old, of beautiful roan color—large, and perfect in form and proportions. So fine a head, with so bright and mild expression of the eye, I never saw before on a bull. His horns, though but few inches in length, were beautiful in form and position—a feature not often met with among the improved Short-horns. The

painter, or engraver, who should attempt to flatter this animal in executing his likeness, would only mar his beauty. It would be extremely difficult for either artist to do him simple justice. I speak in strong terms—and he merits all I have said. This fine animal, I learn, was purchased by S. P. Chapman, Esq., of Madison county, before leaving the Fair. The farmers of that county may justly congratulate themselves upon the acquisition of so valuable an animal."

**REMARKS.**—In giving place to the above, it may be proper to remark that its author is not at present interested, either directly or indirectly, in the kinds of stock mentioned. He was formerly an extensive farmer, and the owner of as many fine horses, cattle and sheep as one man ought to possess—and from his long experience and good judgment, is eminently qualified to write upon stock and stock breeding. For this reason—and the additional one that he has no interest to subservise, except that of the public—his remarks are reliable, and cannot be ascribed to personal motives.—**EDS. RURAL.**

It unfortunately happened for our Canadian Exhibition, at Brockville, that Mr. Fergusson and Mr. Gapper sold all the animals they took to the Rochester Fair. We could wish that our farmers generally felt a deeper interest in the improvement of stock, which can be done only by using first rate male animals of unquestionably *pure breed*. Canada is attaining to a very respectable position in this respect, mainly through the persevering energy of a comparatively few scattered individuals; among whom Mr. Fergusson has always occupied a prominent place. We were told the other day by a friend having much experience and critical taste in these matters, that Mr. Fergusson's present herd, possessing in its purity the celebrated Bates' blood, is of a very high order of excellence. We trust we shall see the agricultural art, in all its branches, keeping pace with the fresh impetus which railways and improved machinery are about to confer on the commerce and manufacturing industry of this young and highly favoured country.

Improved Breed of Cattle.

To the Editor of the Canadian Agriculturist.

DEAR SIR,—It was fully my intention to send a Letter on the above subject, for your November Number, but as a statistical account in reference thereto which I have been looking for the last week, has not reached me, I am under the necessity of postponing my communication till the issue of your December Number—the Letter would have had reference to the contents of Friend Tye's and Southam's Letters on the same subject. I shall hope, however, soon to be

in receipt of the information required, and I trust I shall then be able to command sufficient time after I receive it, to send you my Letter for your December Number.

Believe me to be,  
Yours Respectfully,  
II. PARSONS.

Guelph, 30 October, 1851.

N.B.—There are other subjects of general interest in your last two or three numbers that I hope to say a word upon, so soon as I can command a few hours leisure.

II. P.

ANCIENT CLOTH TAKEN FROM THE  
MOUNDS OF OHIO.

In 1838, Mr. Foster, U. S. Geologist, procured from a resident of Charleston, Jackson county, Ohio, several fragments of cloth taken from a mound in that vicinity. They were found near the bottom, enveloping several copper rings, and were greatly decayed; though some were sufficiently preserved to evidence their having been woven. Fearing deception or error, Mr. Foster refrained from making public, at that time, a fact so novel in itself, and so repugnant to prevailing ideas as to the degree of civilization possessed by the mound-builders; but having lately received from Mr. John Woods, of Ohio, a gentleman high in office, and of unquestionable veracity, additional samples, accompanied by a descriptive letter, all doubt as to the propriety of publishing the discovery is removed. In his letter, Mr. Woods states that the fragments of charred cloth, together with an arrow, and a considerable quantity of charcoal and bones, were taken from a mound on the western bank of the Great Miami River, two miles north of Middleton, Butler county, Ohio, during some excavations rendered necessary in constructing the Cincinnati, Hamilton, and Dayton Railroad. The mound was originally twenty feet high, and, fifty years ago, was covered with large forest trees. About ten feet from its surface there was a compact layer of fine, red, and apparently burned clay, about an inch thick; underneath which, near the middle of the mound, was another layer of fine, cream-coloured clay, differing from any in the neighbourhood. Under this latter, the charcoal, cloth and bones were found. The bones were few and small. Little earth was mixed with the coal and cloth, which evidently remained as they had been placed when burned and covered up. The charcoal appeared to be on the outside of the cloth, which was frequently in folds of half a dozen thicknesses. The layers of burned and cream-coloured clay did not occupy but about five or six square feet of the mound. As to the period when the charcoal and cloth were deposited in the mound, the only question occurring to Mr. Woods was, whether the mound erected by a former race may not have been made a burial place by the Indians living here when America was discovered. Thinking of this question while at the mound, he was careful to examine the condition of the earth around and above the relics, and came to the conclusion that it could not have been disturbed after it was placed in the mound. On this question Mr. Foster further remarks, that there is no evidence that the North American Indians possessed the art of spinning and weaving when first known to the whites; consequently, they never possessed it; for an art so useful, when once acquired, would not be lost. That the cloth was obtained from Europeans by the Indians and then placed in the mound, at a comparatively recent period, is improba-

ble for the following reasons: The layers of earth surrounding it were undisturbed;—its material, being less adapted for clothing and more costly than wool, is not such as a civilized race would manufacture for a barbarous one; and, moreover, the texture of some of the samples could not have been formed in an ordinary loom, but, was undoubtedly woven by hand. From these facts, Mr. Foster infers that the mound-builders who have left memorials of their existence from the shores of Lake Superior to those of the Mexican Gulf, were a laborious, intelligent people, far more civilized and advanced in the arts than the present race of Indians, with whom they appear to have no connection. The fabric in these samples of cloth, seem to be of some material allied to hemp; and the separation of the fibre from the wood is as complete as if done by the modern processes of rotting and heckling. The thread, though coarse, is regularly spun. The texture of the samples from Jackson county, is formed by the alternate intersection of the warp and woof; but in others from Butler county, the weft is wound once round the warp—a process only to be accomplished by hand. There is no reason to doubt that these woven fabrics are the work of the mound-builders. The art of spinning and weaving was practiced by the ancient Peruvians. At Pachacamac, thirty or forty miles from Lima, where stands the temple of the sun, there are numerous remains of walls built by sun-dried bricks indicating the site of a once large and compact town. In the burial-place here, are found numerous mummies in a sitting posture, wrapped in many folds of a woven cloth, with an exterior covering of coarse matting. The fabric consists of the wool of lama or alpaca, and a cotton, which here grows spontaneously.

Kossuth's Personal Appearance.

He stands about 5 feet 8 inches in height, has a slight and apparently not strongly knit frame, and is a little round shouldered. His face is rather oval; a pair of gray eyes, which somewhat reminded me of O'Connell's in expression, well set beneath a full and arched brow, give an animated and intelligent look to his countenance. His forehead, high and broad, is deeply wrinkled, and time has just begun to grizzle a head of straight dark hair, and to leave a bald spot behind. He has got the true Hungarian nose, but it is a fair, well formed feature,—such as a French passport would describe as *moyen*; a thick moustache nearly covers his mouth, except when he speaks or smiles, and unites with beard and whisker in a full flock of dark hair, falling down from the chin. The portraits are singularly unlike him in either person or expression. Whether from his recent captivity or constitutional causes, there is somehow an air of lassitude in his look, to which the fatigues of his voyage not improbably contributed. Altogether he gives one the idea of a man of thought rather than a man of action; there is a speculative air in his face, mingled with melancholy, which would mark him for a visionary or theoretical enthusiast rather than a great leader or a soldier. He was very plainly attired in a dark green frock-coat, with a little silk braid at the back and edges, and wore a common low-crowned square felt hat. Madame Kossuth, who seems in delicate health, stood beside her children, Francis and Louis, boys, and Wilhelmine, a girl, the eldest about 11, the youngest 7, and was dressed as simply as her husband. Some fine looking fellows, bearded like the pard, in braided military frocks lounged about the decks, a few of whom as indeed possibly their leader might have done, had suffered, no doubt, a good deal from sea sickness.

## FATTENING ANIMALS.

The following hints should be observed in the treatment of fattening animals:

1. They should be kept comfortable and quiet, and suffered to take no more exercise than is necessary for their health. All exercise, more than this, calls for an expenditure of food, which does not avail anything in the process of fattening. Everything which serves to make an animal uneasy and discontented, should be avoided, for under such circumstances they thrive but very poorly.

2. Where several articles of food are to be used, the least palatable and nutritious should be fed first, and the most nutritious reserved to complete the process.

3. They should be fed regularly, and their food should be given in the proper quantity, so that none is wasted, and that the animal shall be in no danger of suffering from surfeit on the one hand, or hunger on the other. Their food should be given by a careful and observing hand, and they should be closely watched, so that all their wants may be seasonably met.

4. Their food should be suitable, and it should be suitably prepared. Nearly all domestic animals thrive better on a variety of food, and they become cloyed with a single article, when fed exclusively on it for a great length of time. Most farmers may very easily secure for all their fattening animals the requisite variety of food.—Potatoes and apples, or potatoes and pumpkins, boiled and mashed together, with the addition of a little meal may be used with advantages for fattening swine.

5. Care should be taken that animals do not become dyspeptic and unhealthy, as they sometimes do, owing to errors in feeding. The health of swine is promoted by supplying them with charcoal, while fattening. They are also more fond of food which has been slightly fermented, as they appear to fatten faster upon it, if it is fed to them in this state.

6. For fattening neat cattle, the advantage of cooking the food is not so great or so evident as it is in the case of swine. For the former, corn and cob meal ground together, is better than the corn alone—as the nutriment is diffused through a greater bulk, lays lighter in the stomach, and is more thoroughly digested. For swine, the benefit of the cob is not so apparent; although some prefer corn and cob meal for swine. In whatever form we give Indian corn to swine, there is considerable advantage, we think, in having it boiled or steamed. Swine are said to be much more quiet, and consequently gain flesh much faster when fed on mush, or hasty pudding well cooked, than when the same ingredients are fed to them uncooked.—*Maine Farmer.*

**A GREAT CALF.**—The Keene News states that Mr. Elias Lyman of White River, Hartford, Vt. has a calf which, on the 28th of May, weighing 596½ pounds.

He was then a little short of four years old. The News adds:

This animal, the greatest of its kind, has been a "sucker" all his life time, having taken the milk from one to six cows. At the time our informant saw it weighed, May 23th, it took the milk of six cows daily.—The cows, in turn, were driven upon a stand at a convenient height, and his calfship helped himself as other calves are wont to do. The price asked for him was \$1000—which had been offered for him on condition that Mr. L. would deliver him safe at Brighton Market, which condition Mr. L. did not see fit to comply with.

**THE CIVILIZED INDIANS.**—The hunting ground no longer affording a supply of the former accustomed game, the Indian has diverted his attention to agriculture, and from a correspondent we learn the names of several of the Mohawk agriculturist, and the result of their years' labour.

Peter Smith,	Onondaga,	1600	bush.	wheat
Aaron do	Tuscorora	1300	"	"
Jas, Powless,	"	1100	"	"
John Garlo,	Onondaga,	1700	"	"
Jonn Johnson,	"	800	"	"
Peter Garlo,	"	500	"	"
Thos. Paruing,	"	400	"	"

This is a gratifying contrast to a period not many years past, when all these Sons of the Forest were living in a wild erratic life, depending more for a livelihood upon their instinct than their intellect.

We shall be happy to receive and publish any further information, respecting the progress and prosperity of our red brethren.—[Hamilton Gaz.

**FILLING BEDS.**—Beds should be filled with barley straw in preference to rye, oat, or wheat straw, if obtainable. The husks of Indian corn, carefully selected and slit into shreds, make an excellent article for beds. They are durable, clean, not very liable to absorb moisture, and are not objectionable on account of making dirt.

**TO PREVENT DAMPNESS IN WALLS.**—Use a paint made of one part beeswax, three parts boiled linseed oil, one-tenth part of litharge, put on hot. The wall should be entirely dry, and if possible, heated. Three or four coats will render a stone or brick wall impervious to moisture.

**CURIOUS PEAR TREE.**—A very curious pear tree is to be seen in a garden within a block or two of the Greenwood Cemetery, near New York. Every alternate year one of the two sides—blossoms and bears fruit. This year, for instance, one side will bear an abundant crop of sweet fruit; the other nothing. The side that does not bear this year, will blossom and yield a good crop of sour fruit next year, and so alternately. This has been the case ever since the tree first yielded fruit. Altogether it is a great curiosity.

**A CURIOSITY.**—The Boston Traveller has received what it calls "a great curiosity of the fruit kingdom." It is an admixture of apple and pear, which grew on a pear tree, the branches of which mingled with those of an apple tree. The fruit has partially taken the colour of the apple which grows upon the tree. It has the taste of the apple, but retains the shape of the pear.—The apple which grows upon the tree is of a deep red.

## The Canadian Agriculturist for 1852.

We are happy to inform our readers and the public, that arrangements have been made by the Proprietor of this journal with the Board of Agriculture, which will ensure its continuance in an enlarged and much improved form, without enhancing its price. The prize essays received by the Board, with a condensed statement of all the Reports sent in by the Agricultural Societies of Upper Canada, will form a novel, and it is believed, most useful feature of this work. We shall confidently look for such an increased circulation, as will render the *Agriculturist* profitable for the future, whatever it may have been in the past. Upon the Farmers themselves will mainly depend the result. Full particulars will be given in our next.

### Library of the Board of Agriculture.

The Secretary acknowledges the receipt of a donation of books, consisting of 3 vols. of *British Husbandry*, English Edition, from Wm. McDougall, Esq. As the formation of an Agricultural Library is a matter of much convenience and utility, any works having reference to Agriculture or its cognate branches, whether new or old, will be thankfully received.

The **New Agricultural Statute** will be found on another page, and should be closely examined by Officers of Agricultural Societies, previous to the annual meetings of Township and County Societies, which must now be held, pursuant to law, in the months of January and February respectively.

☞ We request the particular attention of our readers to the two papers which occupy a prominent place in our present number. Mr. Treadwell's article presents a pleasing and truthful picture of the general progress of Canada; inspiring yet brighter hopes for the future. Mr. Ruttan's paper embraces a subject in which man, and indeed, domesticated animals in general, have a deep concernment. No animal breathing by lungs, can live out healthfully the natural span of its existence, without a constant supply of pure, and sufficient air; and the public are largely indebted to Mr. Ruttan for the close and long attention which he has paid, and we believe, in a great measure, successfully, to the most economical and efficient system of warming and ventilating buildings suited to the climate of this country. We hope shortly to be able to lay before our readers a description of Mr. Ruttan's patent apparatus, illustrated by engravings.

**Canada; Past, Present, and Future.** Toronto, THOMAS MACLEAR, 45, Yonge Street.

The fifth and sixth parts of this truly valuable publication are lying before us, and well do they sustain the high character for utility and correctness that has been deservedly earned by their predecessors. Part fifth is embellished with an engraved title page to Vol. I; containing a well executed vignette, representing that stupendous phenomenon of nature—Niagara Falls. This part comprises the remaining

description of the County of York, and the whole of Simcoe; with the continuation of a copious business Directory, which, when completed, will embrace the whole Province; and cannot fail to be exceedingly useful to other classes of the community, as well as the commercial. Part sixth, contains, of the neatly executed series of maps illustrating the work, one for the Counties of York and Simcoe, in which the Township lines and principal places are clearly defined. The letterpress embraces a description of the Counties of Waterloo, Huron, Perth and Bruce—a portion of Canada, enjoying a mild, salubrious climate, and possessing a soil of almost inexhaustible fertility. While this publication abounds in facts, amounting to absolute demonstration of the rapid progress and immense resources of this young and extensive country; we regard the scrupulous care and ability evinced in the descriptive and statistical portions of the work, and the style in which it is "got up," as highly creditable to Canadian art. We would urge on our readers to purchase and read the book themselves, assuring them that there is more to be learned about this rising country than the most sanguine can imagine; and when they have done this, we would advise them to send the book to their friends in Old Fatherland, to enlighten the darkness and remove the doubts, which unhappily prevail there to an extent, as astonishing as it is unpardonable, with regard to the climate, natural capabilities, and social progress of this portion of Her Majesty's dominions.

### Adelaide Academy.

This Seminary for the Education of Young Ladies, under the direction of Mr. & Mrs. Hurlburt, has just been removed to the capacious residence, for many years occupied by the Hon. Robt. Baldwin, in this City. The house being large and the situation pleasant and salubrious are circumstances highly favorable to the important department of physical Education; a department most intimately connected with, if not absolutely essential to, the intellectual and moral. The number of Teachers, we learn, has been increased, and other arrangements made for improving the system of Education pursued, and the reception of a larger number of pupils. The services of Mr. Carpendale, whose talents as an artist are now acknowledged by the public to be of a superior order, have been secured for Drawing, &c.; and the French language and literature are taught by a resident Parisian Lady, of undoubted attainments. What strikes us as constituting the chief recommendation of the routine of study pursued in this Seminary is the judicious blending of the useful with the ornamental. While Music, Drawing, &c., receive due attention, the more substantial and particularly useful branches of knowledge, that explain the phenomena of nature and of civil and domestic life are equally cared for; History, both civil and ecclesiastical; with the elements of chemistry and natural philosophy, and the more useful and interesting portions of the wide field of Natural History are very properly included in the course of instruction. And we cannot augur otherwise than well for the mental and moral habits induced by a system of Education—applicable equally to both sexes—which embraces the evidences of Natural and Revealed Religion under such guides as Butler and Paley.



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We beg leave to say to our customers and friends, that we are again prepared to furnish those in want of Thrashing Machines with an article superior even to those heretofore manufactured by us.

Our long experience in making and the very liberal patronage we have enjoyed in the sale of our Machines, has, together with a constant determination to produce an article that will never fail to excel all others, caused us to watch carefully all the improvements that could be made from time to time, until now we feel confident in saying, that for durability, neatness of work, and amount of it they can do, our Thrashing Machines are unequalled by any in use. And while the grain is thrashed clean and none of it broken or wasted, it is at the same time perfectly cleaned, fit for the mill or any market.

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Agent at Hamilton, Mr. Raswell Wilson.

Toronto, July 15th, 1851.

42-6m

**IMPORTANT TO FARMERS AND GARDENERS!**

**T**HE Subscriber is prepared to supply in any quantities to suit purchasers,

**GROUND BONE FOR**

**MANURE.**

It is quite unnecessary to state here the superior qualities of Ground Bone over any other kind of Manure, especially for turnips, as it is well known to all practical agriculturists.

**PETER R. LAMB,**

*Near the Toronto News-Office, East of Parliament Street*

**N.B.** All Orders or Communications sent at Mr. T. Laitey's Clothing Store, King Street, or through the Post Office, will be punctually attended to.

April, 1851.

33-3m

**CHEAP OIL FOR KITCHEN LAMPS.**—Let all scraps of fat, (including even whatever bits are left on the dinner plates) and all drippings be carefully saved and put into an earthen crock, covered, and set in a cold place. When the crock is full, transfer the fat to an iron pot, filling it up half-way with fat; and pour in sufficient cold water to reach the top. Set it over the fire, and boil and skim it till all the impurities are removed. Next, pour the melted fat in a large, broad pan of cold water, and set it away to cool. It will harden into a cake. Then take out the cake and put it away in a cool place. When wanted for use, cut off a sufficient quantity—melt it by the fire till it becomes liquid, and then fill the lamp with it as with lard. It will give a clear, bright light, quite equal to that of lard and better than whale oil; and it costs nothing but the trouble of preparing the fat. We highly recommend this piece of domestic economy.

**PRESERVING EGGS.**—A patent for the following has been granted in England:—One bush. quick lime, 32 oz. salt, 8 oz. cream of tartar. These ingredients mix with as much water as will reduce them to the consistency that an egg, when put in, will swim. By this method, eggs have been preserved in a condition perfectly sweet for two years. So says the newspaper account. It may be well to try it.

**The Canadian Agriculturist.**

*Published Monthly, at Toronto, C. W.*

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