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LOWER CANADA

AGRICULTURIST

[MANUFACTURING, COMMERCIAL, AND COLONIZATION INTELLIGENCER

OFFICIAL SERIES OF THE AGRICULTURAL BOARD AND SOCIETIES

PUBLISHED UNDER THE DIRECTION OF

J. PERRAULT

*Pupil of the Royal Agricultural College of Cirencester, Gloucestershire, England
and of the Imperial Agricultural School of Grignon, Seine and Oise, France
Member of the Imperial Zoological Society of Paris, &c.*

1861-1862



SPARGERE COLLECTA

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MONTREAL.

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1862.

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AGRICULTURAL REVIEW.

OCTOBER.

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BOARD OF AGRICULTURE FOR LOWER CANADA.

Montreal, 21st August, 1861.

Present : Hon. L. V. Sicotte, President, Messrs. O. E. Casgrain, Vice-President, J. O. A. Turgeon, Major Campbell, Revd. F. Pilote, Professor of Agriculture at the College of St. Ann's, Kamouraska, J. Perrault, Professor of Agriculture at the College of Varennes.

The President takes the Chair.

1st. A letter from the Secretary of the City of Montreal Agricultural Society was read, demanding; permission to employ their funds this year in aid of the Canadians returned from the United States, by supplying them with seeds, improved agricultural implements and cattle.

Resolved.—That the Secretary shall inform the City of Montreal Agricultural Society, that this Board regrets to be unable to grant their request.

2nd. *Resolved*.—That this Board is of opinion that the agricultural products of Canada should be conveniently exposed at the Grand Exhibition in London for 1862.

That in order to obtain this desirable object, two members of this Board shall be appointed to communicate with the Board of Agriculture for Upper Canada, and the Board of Arts and Manufactures of the two Provinces, so as to obtain the means of having such an exhibition, and that Messrs. Sicotte and Campbell be appointed for that object.

3rd. *Resolved*.—That the President be authorized to purchase a building where this Board can open its office, and that the purchase money shall not exceed two thousand five hundred pounds, and that the annual payments shall not exceed five hundred pounds.

4th. *Resolved*.—That the President be authorized to bring forward again before the next Session of Parliament, the amendments to the Bill of Agriculture, proposed at the last Session of Parliament.

5th. *Resolved*.—That a committee of three members, Messrs. Sicotte, Turgeon, and Chauveau, be appointed to take the best means of obtaining an Agricultural Journal.

And the Board adjourns.

By order,

F. CHAGNON,
Secretary.

BOARD OF AGRICULTURE FOR LOWER CANADA.

Montreal, 8th September, 1861.

Present : Hon. L. V. Sicotte, President, M.M., O. E. Casgrain, Vice President, Major Campbell, J. C. Taché, J. O. A. Turgeon, Captain Rhodes, Rev. F. Pilote, Professor of Agriculture at the St. Ann's College, F. M. F. Ossage, Professor of Agriculture at the Jacques Cartier Normal School, and J. Perrault, Professor of Agriculture at Varennes College.

The President took the chair.

The Committee appointed at the last meeting of the Board for the publication of an Agricultural Journal to be the official organ of this Board, gave their report, and recommends to the Board the adoption of the proposition of Mr. J. Perrault, editor of "*L'Agriculteur*," as the most advantageous of those made by MM. Perrault, Demontigny, and Dumais.

This report is adopted, and the President is authorised to make a contract to this effect between the Board and M. Perrault.

This journal will be published in both languages.

Moved by Mr. Taché, seconded by Mr. Casgrain, and resolved : That the said journal will be titled "*Revue Agricole*," and "*The Lower Canadian Agriculturist*"

instead of "*L'Agriculteur*," and *The Farmers' Journal*."

Mr. Perrault does not vote on this motion.

Resolved: That the Secretary of this Board be directed to write to the secretaries of the agricultural societies of Lower Canada and inform them that the publication of "*L'Agriculteur*," and "*The Farmers' Journal*" is no more made by order of this Board, and that they will publish "*La Revue Agricole*" and the *Lower Canada Agriculturist*," as their official organ, and that the Secretaries of the societies be requested to give public notice of this fact in the limits of their societies; also to request every secretary to send to this Board the names of twenty subscribers, at one dollar each, to the said Journal, explaining that the Society will have no more to pay for their advertisements which they are bound by law to publish in the official journal of this Board.

The County of Champlain Agricultural Society ask permission to apply their funds this year to the purchase of stock of improved breed. This demand is granted, but this Board will require that this society report the results of such an application of their funds.

The Board takes in consideration the complaint against the proceedings of the County of Chateauguay Agricultural Society, at their meeting of 17th January last, for their reorganization in 1861. This complaint is based on the following facts: The President of the Society, although present, did not preside at the meeting, but it was presided at by another person. The hour of the meeting was not mentioned in the notices. Many persons, not members of the Society, were present. The President refused to take by writing the names of the voters, and notwithstanding the remonstrances, declared that the majority was to elect such persons as the officers of the Society. The President knew not who were the members of the Society. The

officers of the Society requested in April to give their answers to these complaints, replied in July, and have been heard at the present meeting. The facts were admitted after discussion.

Mr. President submitted the following question to the meeting:

"Is the reorganization of this Society conform to the law?"

Yea.—Captain Rhodes.

Nays.—The other gentlemen present.

The complainants asked the permission to organize a second society in that county, the limits of which will be the Parishes of Ste. Martine, Chateauguay, Ste. Philomène, and St. Urbain. The Board cannot grant this demand.

UNIVERSAL EXPOSITION AT LONDON IN 1862.

Resolved: That the President, M.M. Major Campbell and Ossage be authorized to meet the Board of Arts and Manufactures for Lower Canada, that of Upper Canada, the Board of Agriculture for Upper Canada, and the Committees appointed by these Boards, to prepare a petition to the Government, asking an aid to exhibit, in a convenient manner, the products of Canada at this Exhibition, and that the President be authorized to sign that petition.

On motion of Captain Rhodes it is resolved:

That a petition be presented to the three branches of the Legislature at the next session of Parliament, praying that the catching and killing of all birds be prevented during the months of March, April, June, and July, the prayer of these petitioners to be based upon the fact that birds are beneficial to agriculture, through the great numbers of insects they consume, many of which are highly injurious to the growth of crops.

Major Campbell voted against the adoption of this motion, because nobody kills the birds, and consequently that no law is wanted to this effect.

And the Board adjourned.

T. CHAGNON, *Secretary.*

TO OUR READERS.

We have to pray your forbearance with us until the next number is issued. In presenting you with the first of a new series of the Agricultural Journal, we are conscious of many imperfections and shortcomings which will have to be remedied and improved. It is our intention to do so, and with the assistance of agriculturists and the public, among whom the Journal is likely to circulate, we confidently anticipate being able to fulfil our task. We

have entered upon it with little experience, but a great deal of anxiety and good will. Our heart is in the cause; and it is our object to make the interests of agriculture, and all others, to the aid of which this journal is devoted, increase and prosper. That the official organ of the Board of Agriculture has not heretofore occupied the position it ought to hold, is painful for us to admit, but the fact is so, nevertheless. The money granted by the Province to carry on this work ought not to be foolishly expended; a journal that the Government

supports for the purpose to which this is devoted, should be well managed and ably conducted. If it lays in our power, it shall be so. We purpose devoting much of our time and labor during the next month to the Exhibitions now being held throughout Lower Canada. We shall endeavour to be present, either personally, or by proxy, at these exhibitions; and we shall give our opinions of them, in our own language, and as we conceive is their due. But when this month is over, little of that work remains. And, therefore, we call upon all subscribers to the Journal to assist us by their criticism, by their information, and by their remarks. Whatever appears to them to be curious or suitable for a publication such as this: wherever new ideas suggest themselves, or anything comes within their view that can improve the agriculture or add to the population and the progress of this great province, let us have it. Original communications ought to be the life and soul of a journal such as this, we promise contributors all the space they may desire, and we shall take care that their communications, whenever we are in doubt ourselves, shall be referred for the opinion of men of experience and understanding in the province intimately conversant with these things, and whose will shall be admitted as law. There is much omitted in this number of the English journal which ought to have appeared, and a great deal has appeared which might have very well been left out. We did not expect to attain perfection at once, our time was short and we are not altogether accustomed to public writing. Let that pass. The indulgence of our readers, we are sure, will be extended to us; we are willing to bear their reproaches should we not improve. Again, we entreat that agriculturists and all interested shall constantly communicate with us, for it is by comparing notes, informing one another, and searching for the truth, that a journal like this will succeed, and, *finis coronat opus*, it is the end that shall crown the work.

THE ST. ANNE'S MODEL FARM AND SCHOOL.

We have before us the Report of the School of Agriculture, and of the Model Farm at St. Anne's, for the year 1860, printed by order of the Legislative Assembly. We gather from this that the Institution consists of two components, perfectly distinct from each other, namely,

theoretical training, and a tract of land under cultivation. Its objects are the exemplification of a perfect scheme of agronomy and the formation of a school, to which all may resort to study its theory. The latter aim has hitherto had but imperfect success for want of a sufficient number of students. The practical department, however, surmounting the first impediments, has extended its influence over the several parcels of land which had been submitted to its management, and is in a condition to show very satisfactory results in the rotation commenced, and the crops already obtained. The farm is a private undertaking, carried on under the superintendence of the college. When the corporation issued their prospectus in 1859, they declared their inability to realize the several heads of the programme, faster than they acquired experience, and received the appliances which they looked for from other sources. All the details of management are consequently not yet complete; but what has been done, is done well. The most necessary buildings suitable to the new system of cropping have been erected; but the cow stables are not yet so complete as to enable the proprietors to bestow on the animals all the care and attention consistent with good management. Suitable instruments have yet to be procured; but sacrifices were made to improve the farm stock, especially that of horned cattle. The institution has been successful in obtaining capital breeding animals from the Agricultural Society of Kamouraska.

To the Directors of this Society warm thanks are given for their liberal assistance and help towards the Institution. —The soil under cultivation is, for the most part, a limestone clay, very strong, and of unknown depth; under suitable management, and with a sufficiency of manure, it would produce any kind of crop, but is especially adapted for wheat. The tilth is not more than 7 or 8 inches in thickness.

As now under culture, the land is divided as follows:—

	Arpents.	Perches.
Natural Meadow.....	25	62
Natural Garden Ground	4	9
Orchard.....	3	37
Potato Gardens.....	2	58
Slaughter-place, Pig-yard, (to be cleared of stones and drained)....	2	49
Grain and pasture fields	113	42
Total.....	151	46

The farm is situated very conveniently between the railway and the river. It

reaches in length half a league. In the middle, on an eminence, from which there is an extensive prospect, is the College with all its dependencies, orchards, and part of the garden. Between the College and the railway on the south the land is six arpents in breadth, divided into seven fields, averaging, together, 15 arpents in length. For the better understanding of the accounts, the fields are numbered, beginning at the third field, north-east from the road. The rest of the land reaches from the foot of the declivity to the river, an extent of 14 arpents. This is no more than 3 arpents 2 perches in breadth, and is divided into three fields, numbered 8, 9 and 10, beginning at the road leading to the river side. These two parcels make an aggregate of 141 arpents,—85 arpents 33 perches lying south, and 55 arpents 67 perches north. The former is 91 feet 3 inches above high-water mark, the latter is no more than 3 feet 3 inches.

The six years' course recommended by several good farmers of the environs of Montreal has been adopted provisionally. The main principle of this is well known to be the cultivation of root crops with deep ploughing, and strong manuring.

1st year—Turnips, beets, carrots, potatoes, &c.

2nd year—Wheat or barley with timothy and clover for meadow grass.

3rd year—Hay crop.

4th year—Pasture.

5th year—Pasture.

6th year—Oats and peas.

Respecting the six years course, the Rev. Mr. Pilote, the director of the institution says that in the neighbourhood of cities where land is in high condition and of great value, where produce can be disposed of to advantage at all times of the year, and where manure can be easily procured, the six years' course is undoubtedly to be preferred; but at a distance from town, in back concessions where the land is run out, and worth but little, where the farms are large, the roads bad for travelling, labor scarce and unskilled, and wages high, it may be questioned whether the six years' course would be as successful in its results. A prudent farmer, therefore, both may and should vary his system according to the requirements of the locality and the varying price of the produce which his land can yield, so as to raise what finds the readiest sale in greatest abundance. The item in this course which suits nearly all our lands is the raising of root crops as tending to

cleanse the tilth and render it more friable while at the same time it has a restorative effect.

As regards the work done on the farm, both the grain and root crops seem to have turned out very successfully, realizing considerable profit by the produce. Two fields measuring 11 arpents 70 perches, sown with oats, yielded 534 bushels. All expenses paid, the crop gave a net profit of \$13.90 per arpent, reckoning the oats at 1s. 9d. per minot. The potatoes gave 350 bushels to the arpent. The carrots, beets, and turnips 192 bushels only, or 148 bushels less per arpent than in 1859. This was the effect of the great drought.

The farm buildings are a barn with stables; a cellar for vegetables, with hay-loft over it to contain 150 loads of hay; the old and new piggery, a water house, a dairy, and two farm laborers' houses.

A building, 77 feet by 30 feet contiguous to the barn, is used both as a root-cellar and a hay-loft. The roots are stored below, the interior being double boarded on the studs or frame of the building, and filled with tan-bark well rammed. This renders it frost proof. The cellar would contain eight thousand bushels of roots. In the upper part of the building, where the hay is stored, an elevated platform at one end, allows loaded vehicles to enter and unload with great facility, saving much labour in the operation. From this platform also the roots are introduced into the cellar. The building was put up in 1858 to meet the requirements of the new system then about to be introduced. The cost was \$525.20.

The farm-yard is a parallelogram, formed by the front walls of the stables, &c., on one side, and by a wing of the new piggery on the other; the ends being another wing of the latter building, and a high board fence. It is thus enclosed on all sides, and the animals are out of sight of persons passing.

The piggery is constructed on the plan of the best in France and England, except in the article of luxurious show. It consists of two wings adjoining to a building for cooking the food. The latter is 24 feet long by 30 feet. One wing containing the fattening pens, is 82 feet long by 24; the other, for young growing swine, and for a poultry house, is 93 feet long. The pigs are kept warm enough in winter, and cool enough in summer by fresh air freely admitted. Each of the wings contains two rows of pens, separated by a long

passage leading from the cooking-house. This greatly facilitates the feeding, both of the store hogs and of those fattening. Close to the small door of each pen is an iron trough, made half cylindrical on Croscill's plan. Over the trough is a shutter or flap-door. At feeding time the flap is pushed inwards and kept in position by a bolt. When the food is inserted the flap is pulled down, and fastened by the same bolt which falls into a socket. Thus the animal feeds undisturbed. The flap is made concave within, in order to afford more room to the pig. The troughs are of two sizes: one 3 feet long by 15 inches wide, and 8½ inches deep, for two pigs, when two are kept in one pen; the other 18 inches long, only for a single pig.*

Each fattening hog has its own pen, as the animal fattens faster being alone than when it eats out of a trough with others. Every pen contains just room enough—8 feet by 6—to allow the pig to lie down comfortably, but not to take exercise. It has no yard to move about, and take the air in, as store pigs have. These require exercise and open air as essential conditions of health and improvement, without which they degenerate. The sties of the breeding sows are accordingly larger, being 8½ feet by 8; and each has a small yard attached to it. The winter store pigs alone are kept together. The inside of the pens is lined with boards over the studs, and the space between the two boardings filled in with tan bark. This has proved sufficient to keep up the necessary warmth in the severest weather. The pigs have never suffered from cold. All the dung and the urine are conducted to the north-east corner of the basement of the building by means of a small gutter at the back of the pens throughout the whole length of both wings, having a sufficient slope for the purpose. A little shovelling carries the dung to the opening into the basement; the liquid part runs down of itself. The floor of the pens slopes back to carry this off to the gutter. As each wing is of considerable length, requiring the gutter to be of considerable depth at the lower end, it would have been better to make three openings instead of one. By this means a very few inches below the flooring would have sufficed. Whenever the gutter is

shallow the hogs go to it, to deplete themselves, leaving the rest of the pen clean. One essential is still deficient in the cess-pool or reservoir of all this manure; it is an impervious flooring capable of resisting the filtration of the urine which is now mostly absorbed by the light soil of the ground floor and which might be turned to good account.

The following is a statement of the cattle on the farm:—

<i>Horses</i> —one of which is frequently employed in the service of the College....	5	
Brood Mare.....	1	
Fillies from 21 to 33 months old.....	3	
Colts, 9 months.....	2	
<i>Horned Cattle</i> —Milch Cows, 1 Ayrshire, 2 Canadian, and 7 cross-breed, of various kinds, all good.....	10	
Bulls, 1 Ayrshire 43 months old, and 1 do. mixed breed, 24 months.....	2	
Draught Oxen of the large American breed.....	2	
Heifers—bringing up—from 12 to 35 months.....	4	
Steer pure Ayrshire—8½ months.....	1	
<i>Swine</i> —3 breeding Sows, under two years, 2 Suffolk & 1 Chinese.		} Three heads considered equal to one of large cattle.
2 Boars, one of a good mixed English breed, and 1 cross-breed Chinese, not very good.....		
1 Windsor Chinese Sow, 10 months...		
27 Hogs kept through the winter, most of them intended for fattening next autumn.....		
	33	41

In all 41 head of large cattle, or one head to each 3 arpents, and 33 perches of ploughed or meadow land.

The horses are all the produce of the farm, except a brood mare, half English and half Canadian, producing very fine colts, and two draught horses which carried off the prize at the exhibition at Quebec last autumn.

The herd of horned cattle includes two of pure Ayrshire breed, a cow and a bull.—The cow was bought last summer from Colonel Rhodes. She is 12 years old, and was raised in Mr. Wm. Russell's stalls, in Renfrewshire, Scotland, whence she was imported in 1853 by the late Mr. D. Gilmore, of Quebec. Some weeks after her arrival there she calved, the sire of which was a bull of the same breed, belonging to Mr. West of St. Foye. The calf is at present in good condition.

* Messrs. Marcotte & Co., of Quebec, make these at 18s per cwt. The 3 foot trough weigh 100½ lbs. Old iron is taken by them at the rate of 4s. per cwt.

The Bull was purchased from Mr. McL——, of Montreal, in the Spring of 1858, being then 9 months old. He is the offspring of an Ayrshire cow, reared by Mr. J. Logan of this city, (well known for his excellent choice of breeds), and of a bull of the same race, imported by the Hochelaga Agricultural Society. As much as \$8 is now offered for the mere crossing for a few days. Hardly four years ago the calves of the same cows were sold for the value of their skins.

The other cows, with the exception of the two of the Canadian breed, are sprung from various cross-bred animals, of which the stock is a good English breed, from the herd of Mr. Patton, of St. Thomas, introduced some fifteen years since. There are some very good milkers among them.

Swine.—The porcine race is not so well represented as it ought to be. There are some good individuals indeed, but not in sufficient numbers.

A young sow, about 10 months old, given by Mr. N. Patton, of Point Levy, is a good cross of the Windsor Chinese breed.

Two well-bred English boars, bought at Montreal in 1858, have left some valuable offspring. Some of them, crossed with the Chinese breed, have turned out well, and others, crossed with the small Canadian breed, have also done pretty well.

In 1858, Mr. Gibb, of Quebec, presented the Institution with two Chinese pigs—a male and a female. The pure Chinese breed, as is well known, is the one most fitted for fattening. But in consequence of an excess of this tendency preventing full development in other respects, it is not advantageous to preserve the race pure, and it should be kept for crossing only. These crosses have generally produced good results; they improve the breeds which are not disposed to fatten kindly. Good English breeds do not require this treatment; however, it does not seem to be injurious to them.

Considerable improvements have been made on the land by the removal of the stones from the ploughed fields and garden, and an attempt at draining and stone fencing. The pupils keep regular journals of all the proceedings on the farm; the work of the employés, horses, and oxen, the consumption and produce of the cow-house and pigstie.

Respecting the school, the principal informs us that during the year ending 31st December, 1860, eight pupils attended

—one from Montreal, three from Kamouraska, one from St. Thomas, one from River Ouelle, and two from L'Islet. Of these there are but three left now, together with a fourth, from Malbaie, who came in during the month of January. Five left for various reasons; two returned home to help their parents; one entered the classes of primary instruction, and two others had no taste for agriculture. Such is not the case with the four pupils now resident. They are steady and seem well-fitted for agricultural pursuits. One of them went through a good course of classical study at the College; a second studied for two years at Quebec; the two others came with, unfortunately, but little preliminary education; but, even in them, application, a willing disposition, and the practice which they are caused to follow, will at least supply the defects of that which they will acquire but imperfectly by theoretical teaching. By remaining at St. Anne for the time fixed by the regulations, the pupils will be enabled to acquire the principal practical ideas, which are indispensable to a farmer. Scientific instruction is alternated with practical occupation. They are employed on the farm as the sons of farmers would be in their own families.

The expenditure of the college exceeded its income last year by nearly \$136; and unless the grant is increased, the Principal intimates he will be under the painful necessity of closing the school. But he adds, and very properly, that the small number of pupils proves nothing against a new institution; it only proves one thing, which is, that the necessity of practical agricultural instruction is not generally enough known. This indifference will not surprise those who know that in Europe the first schools of agriculture have had to contend with the same difficulty, and would even have foundered upon this very rock, had not the public chest been freely thrown open to pay for the pupils' board. This is actually the case at present in several countries, principally in France, where the state pays for the board, lodging and instruction of over fifteen hundred pupils at fifty school-farms, exclusive of those at the three Imperial Schools. Besides this, each school is entitled to 400 francs as a prize for its best pupil. Thus these 50 farm-schools absorb a sum of \$131,250 or \$2,625 each. The result of this assistance has been a triumph over indifference; the schools of agriculture are filled with youths

who carry forth each year into the midst of the population, from whence they came, a taste for agriculture, together with a knowledge of the new processes which render it an important and lucrative pursuit.

So long as agriculture does not offer to the youth of our country a prospect for the future, giving hope to legitimate ambition, it is not to be expected that agricultural instruction will establish itself here without outside assistance. The advantages offered by it to youths destined for field-labour are not yet sufficiently evident to induce their families to deprive themselves of their services for two or three years, nor to tempt the young men themselves to enter upon this career.

It is therefore recommended that the Executive establish a certain number of scholarships in favour of young persons who may be disposed to profit by the advantages of professional instruction in agriculture.

The report altogether is an excellent one, and as will be seen by the condensation of it we have given, most interesting.

THE CHAMBER OF COMMERCE FOR THE WORSTED DISTRICT.*

BRADFORD, YORKSHIRE, 21st Feb., 1861.

Address of the Wool Supply Association of the Bradford and Halifax Chamber of Commerce to all parties interested in the growth of Colonial and other Foreign Wool.

The increase in the Worsted Trade of Great Britain has been very considerable during the last few years; and its further development has been checked only by the difficulty of meeting with an adequate supply of Long Wool.

To meet this condition of things and in order if possible to increase the supply, the Wool Association is desirous of disseminating information in the Wool-growing districts.

The increase in the imports of Foreign Wool during the same period has been very large; but these supplies were almost exclusively of a nature to adapt them to the Woollen rather than to the Worsted manufacture. Those interested in the latter branch of industry are anxious to stimulate the growth of Wools suitable for their wants. The qualities they require give to the Wool a higher marketable value for all purposes of manufacture, and are, therefore, well deserving the attention of growers, collectors, and shippers of Wool.

The Wool (the increase of which they desire to promote) should have a staple from four to seven inches long, according to its fineness,

* The Board of Agriculture for Lower Canada, received through the Governor General this address, and has taken proper steps so as to secure to the country such means of improving our wool as may be deemed advisable.—*Editor.*

and should, as far as possible, be uniform in quality throughout its whole length, bright and lustrous in appearance, or soft and kind to the touch, of good spinning properties, free from burrs or other vegetable fibre. It should also be well washed before it is clipped, or where this is not practicable, care should be taken that it be not cotted or felted in drying. It is most desirable to retain the whole natural length of the staple by only clipping the lambs or sheep once during the season's growth, unless local causes render it absolutely necessary to do so oftener.

It is also very desirable that a proper classification of Wool should be made in packing, and that the packing should be thoroughly trustworthy and fair.

An improvement is already manifested in the wool of some countries, and the Association believe that it might be made general if proper care were taken in the selection of breeding sheep, particularly of the Rams, and, where necessary, by the introduction of new blood.

The flocks should, as much as possible, be pastured upon succulent grasses, similar to those grown in Great Britain.

The destructive effects of drought, or cold, or other climatic causes, which check the growth of the grasses, by depriving the sheep of their necessary supply of food, and render the staple tender, ought to be prevented by a constant supply of food throughout the whole year.

The Wool Supply Association will be happy to answer any inquiries, and give any information that Foreign correspondents may require in their efforts to increase the supply and improve the quality of their Wools, and to render any assistance in their power to facilitate the export of breeding sheep suitable for crossing and improving the inferior Foreign breeds. Already ten Rams have been sent to India by this Association, from which the best results are expected.

The Wool Association offer their gratuitous services to parties abroad desirous of purchasing Rams for exportation, or in any other manner to promote the views expressed in their observations.

A few samples of different varieties of the Combing Wools required will be transmitted to the Consuls in Foreign parts, and to the Governors of Her Britannic Majesty's Colonies, and wherever Wools suitable for the Worsted Trade are cultivated.

Address the Bradford Chamber of Commerce, as above.

Remarks concerning Wool; chiefly pointing out the faults attached to each description named.

Oporto.—The Wool usually imported from thence is long, stapled and bright, but troubled with a sprinkling of grey and reddish hairs, which depreciate the value and limit the competition. The sheep also, for want of attention, are apt to produce cotted and yellow tinged fleeces, which only realize in the English market about two-thirds the value of free open, stapled white Wools. The receipts from Oporto have increased considerably, but a good portion of the increase consists of Wool

from a lower breed, and is called here "Mountain Oporto." This description is part long, very coarse stapled, and the other part of the fleece is short and dull looking Wool, unsuitable for same purposes as real Oporto, and realizing twenty-five per cent. less price. By attention this Mountain Wool might be raised to the same character as the usually good description received from Oporto.

Iceland.—We don't know the exact quantity produced annually, but think it is 8,000 to 10,000 packs. The effect of a cold climate acting upon sheep left to nature has been to produce a Wool consisting of a long, spiry, coarse top, with a fine downy bottom, which for English consumers is very objectionable, and reduces the value.

Russian.—The Donskoi Wool does not seem to meet with the same care as the flocks of merino that have attained such perfection in Southern Russia. The Donskoi sheep is probably in a state of nature, or at least partially so, and the Crimean entirely so. Both these admit of great improvement, and by care for a few years a long stapled, good combing Wool of finer quality might be produced, upwards of 30 per cent more valuable.

The Russian government has the power, and probably the inclination, to initiate improvement, and will probably do so at its own expense, if the future advantage be made manifest.

We see splendid flocks of merino have been created in Southern Russia during the last thirty years; we don't know whether this was done by the rich noblemen or the government, but it proves what improvement may be effected on a large scale.

Turkish, Asiatic and European, including Servia, Bosnia, Nissa, Scutaria, Scopia, Salonica, Angora, Smyrna, Syria, Persia.—These Wools are usually very scurfy and kempy,* both of which are serious faults, but may be eradicated by attention. It seems as if most of these Wools got no care at all, and in evidence of this we point to the large proportion of scurfy and mangy fleeces. There is the basis for capital combing Wool, even if the growers cross with their own selected rams, without the introduction of English sheep.

East Indian and Persian Wool imported from Bombay.—Improvement has already commenced here, and a large field awaits full development. Each year our imports are collected from a wider range, and as we penetrate into a more temperate region, we find Wool of a longer and sounder staple, assimilating more closely to our English descriptions than the short hairy Wool that is usually grown nearer the Tropics. East India Wool has a tendency to be burry and scurfy, with a slight mixture of grey hairs. The staple is generally too short.

China.—This Wool is usually soft, short stapled Wool; looks like neither fleece nor lamb; it is usually very cotted, kempy,* and yellow. No attention seems to be bestowed upon it by the growers, but when a regular demand arises,

* By Kempy Wool is meant the presence of short white hairs at the roots of the staple, which never take the dye, and disfigure all goods into which they are introduced.

the Chinese will, no doubt, turn their attention to the article, and effect desirable changes; and from the extraordinary fecundity of the sheep, large quantities might be produced.

Egyptian.—Here is a Wool with many of the properties so wished for by our consumers. The staple might be long enough if the native collectors and growers did not induce the practice of twice shearing. The Wool is bright, sound, and silky, but is sometimes spoiled by a sprinkling of grey hairs, also by the admixture of ill-bred, rough, fuzzy wool, known in trade as Syrian.

The Cape.—The chief remark to be made upon the Wool from this district, is to protest against the pernicious practice of shearing the sheep twice in the year, which altogether disqualifies it for combing purposes, and depreciates its value greatly; and it is strongly recommended to discontinue the practice of shearing until the entire length of the staple of which the Wool is capable, is attained.

Natal.—Considerable attention is being paid to the growth of Wool in this colony, and like New Zealand, it possesses great natural advantages.

Mogadore.—The Wool of this country is deficient in lustre, kempy, and of a brownish colour, but by judicious crossing with English blood, it could be brought to resemble our breeds, and find a large and remunerative market.

Canada.—The bulk of this Wool appears to be a neglected Leicester, but is capable of improvement. There is a tendency in some parts to cross the native sheep with United States merinos, but for the English market we recommend new Leicester rams, so as to impart length, lustre, and soundness to the staple. One great fault is the prevalence of burrs, which often depreciate the value five, and sometimes ten per cent. This year's imports have been irregularly packed, consequently a manufacturer has been obliged to purchase much Wool that he did not require along with that which he did want. If regular classification of the fleeces is unattainable at present, let the growers, at least, pack up the cotted and cast fleeces separately from the others.

California.—We have great hopes of this place being able to supply Europe with very large quantities of both long and short Wool of medium and fine quality. At present the growth is exported almost exclusively to New York and Boston, where it enters duty free. We think, however, that California Wool will, ere long, find its way to England. The value in New York of the unwashed fleeces varies from 6d. to 17d. per lb. The sheep farmers profess to be able to raise any breed from Leicester up to pure merino. At present there is every variety of cross, with an infusion of United States merino.

Peru.—This Wool is long stapled Wool, unfit for combing, but might be improved, and the kemp and scurf eradicated. The kemp is very prevalent. The Lima Wool is better bred, and nearly approaches a combing Wool of middling quality to fine quality. Large quantities of long coarse carpet Wool are shipped from Valparaiso to the United States.

The Chillian Wool is capable of considerable improvement.

Argentine Republic, Buenos Ayres, Cordova, Entre Rios, Santiago.—Buenos Ayres Wools are chiefly short-wooled—shipped in the grease. Entre Rios and Santiago coarse Wools.

Cordova is a carpet Wool, and from its length capable of great improvement.

Republic of the Uruguay, or Band Oriental, Chief town Monte Video.—The Wool from this quarter chiefly consists of fine, short stapled.

New Zealand.—Large supplies of this Wool have already come to England, and we believe the country is peculiarly adapted to produce the long Combing Wools required, from its soil and climate, and an unlimited market is open here for such Wools.

Australia.—The Wools from this Colony form a large article of export. They are generally of a finer character than those of the other countries referred to, and for certain purposes are exceedingly valuable.

THE ARMY WORM AND ITS NATURAL ENEMIES.

The recent failure of the grain harvest in different portions of the European continent and the consequent enquiries into its causes bid fair to re-affirm the axiom that though birds can live without men, men cannot do without birds. An elaborate report, recently submitted to the French Senate supported by memorials from the Agricultural Society of Toulon, the Acclimatisation Society of Nancy, and several leading politicians, enters fully into the subject and while it possesses interest enough to engage the attention even of the *London Times*, suggests many considerations which we in Canada ought not to overlook. We all delight to hear and see around us the melodious songsters, "sweet denizens of hill and dale" of which our fellow-townsmen, Mr. Lemoine, has furnished us an interesting account in his *Oiseaux du Canada*, but we should have more than an æsthetic interest in their preservation if we were sure that they were as necessary to the success of agriculture here, as they are proved to be in France and the rest of the old world. We have been periodically troubled with insect plagues; the Hessian fly, the wheat midge, the weevil have all destroyed their myriad bushels of ripening grain. They have generally disappeared owing to the attacks of parasites, but they never might have appeared, in such numbers as to be hurtful, if the feathered tribes were more numerous here. Another evil of frightful magnitude is now appearing amongst us; we are menaced at no great distance with such a visitation as we read of in Holy Writ; the American Journals teem with

accounts of a new scourge, which, because it presses forward in a resistless line, destroying golden harvests, green meadows, luxuriant trees alike, they call the army worm; and detachments from the main body of this terrible host have already invaded several parts of Canada.

The annexed interesting account of the army worm was furnished us by Col. E. C. Frost, Seneca Lake Nurseries, Schuyler Co., N. Y.

Having understood that the Army Worm had made its appearance near here, we went to-day, August 15th, to the farm of Reuben Wixon, in the town of Dix, four miles west of Havana, and sure enough we there found the army worm, and a great army of them.

Last Monday Mr. Wixon saw the worms crossing the road from a piece of barley, and upon examination found the field of barley much injured. He commenced cutting it on Tuesday, but the rain on Wednesday prevented out-door work, and by Thursday morning three fourths of the grain had been destroyed. They appear to have first started in this field of barley containing eight acres.

From the south side of the barley field they have passed into a pasture, and for several rods it appears as dry and dead as if it had been parched by fire. On the west they have crossed a lane two rods wide, and commenced on a field of corn, eating all but the hard substance of the leaf and stalk, and spring wheat adjoining the barley. On the north they have crossed quite into another field of barley.

They appear to lay dormant in the forenoon, and travel during the afternoon and night. While dormant they get out of the sun as much as possible. Turn over a stone and the ground would be covered, as well as under the swaths of barley.

They appear much like the apple tree worm, though smaller and without hair, are from one-fourth to one and a half inches long, with seven legs on each side, three near the head, and four a little back of the centre of the body. They will crawl about one foot in a minute.

In the green grass, adjoining where they have eaten it quite up, they occupy a strip about one rod wide, and one hundred may be seen in a space eight inches square. Yesterday Mr. Wixon's neighbours turned out and helped him to dig a ditch outside of the ground occupied by them, enclosing about fifteen acres, eighteen inches deep, and perpendicular on the outside. To-day the advance pickets had reached the ditch, and many had crossed it, though the bottom of the ditch was covered, and many fell back; we do not believe it will stop their progress. We hardly know how they can be destroyed. From the centre they advance in all directions.

Ten, fifteen and twenty rods inside of the outer ring, where everything green had been destroyed, full-sized worms in great quantities were moving outward, and it first occurred to us that they may have been hatched back of the advance and were moving towards the vegetation not destroyed; but again, we could see those very small, feeding with the large ones most advanced. As to how they came in

that locality, how they propagated, how far they will finally travel or spread, how they can be exterminated or even checked in their work of destruction, or what will be the end of them, as yet we can settle no theory satisfactory to ourselves.

Now it may happen that although men cannot arrest the march of these insects, birds can do so.

The French report states that a single tomtit was found to eat 200,000 insects' eggs a year. A swallow devours 553 insects a day, eggs and all. A sparrow's nest in the city of Paris was found to contain 700 pairs of the upper wings of cockchafers. The familiar crow which like the proverbial Scotchman, is everywhere to be met with, is so necessary to the husbandman that in certain parts of the United States where this bird was stupidly almost exterminated, grubs and caterpillars were found to do more harm than the crow. The *Ottawa Citizen* has remarked that the bob-o-link, otherwise called the rice bird or reed bunting, which congregates in Virginia in countless myriads and is common there, but which has not until this season appeared in the Ottawa valley, followed the army worm to the neighbourhood of that city in swarms, feeding greedily upon it. At present there is a constant war between our rural population and little birds of almost every kind.

The Board of Agriculture at its last meeting recommended the passing of an act to protect small birds from destruction. This act is to be put before Parliament at the next session.

FLAX CULTURE.

In another place we copy an article from the Belfast (Ireland) *Whig*, specially referring to the cultivation of flax in Canada; an article which farmers and agriculturists in this section of the Province ought particularly to study. In the county of Belfast, the growing of this plant has been very much cultivated; and the writer of the article to which we draw attention, evidently speaks from knowledge. Attempts have been frequently made to get agriculturists to introduce this product into Canada. Premiums have been offered by societies for the best sample of native produce; and in some places, its growth is considerable. We are told that the present price of the home grown seed is a dollar and a quarter per bushel; that it is of first-rate quality, and in considerable demand. There are large tracts of land in the dis-

trict where it could be profitably cultivated; and we believe the profit per acre would not be less than twenty dollars. What has stood in the way of farmers more generally engaging in the cultivation of the plant, is the want of the means to dress it by machinery, and consequently saving in the price of labour. A farmer in Lower Lachine some years ago attempted to set up a machine for the purpose, but it proved a failure; and wages being very high at that time, the dressing the raw material by hand proved too expensive. We believe, however, that within the last two years the culture of flax has been greatly extended throughout the Province; and that where proper intelligence and industry have been applied, the results have been peculiarly satisfactory. We shall endeavour to enter more fully on the subject in a future number, and will be thankful for any information that may be sent us by those who have practical experience about it.

Since the above was written we find a correspondence in the *Toronto Leader* bearing upon the cultivation of flax, of so much interest and importance that we reproduce it here. The letter is from an Irish gentleman, living near Strabane, who farms largely, and grows large quantities of flax.

To John A. Donaldson, Esq., Canadian Emigration Agent, Londonderry.

DEAR SIR,—The interest you have taken in my attempts to bring the capability of Canada as a Flax producing country before the public, leads me to think that a few hints on the preparation of the soil, steeping, and after management of the crop, might be useful, on your return to that country.

My trip in 1859 gave me opportunities of judging, and I have no doubt there is much land in Canada West capable of growing good flax as I saw in company with my brother, several fields grown by the Messrs: Perim of Waterloo County, and it only remains to be seen whether the climate, and water are suitable for its preparation for the Linen manufacturers of Belfast and Lurgan, &c.

The land best suited for the growth of Flax has a clay subsoil, and should have a portion of it mixed with the active soil, by deep plowing, or trenching; at the same time, care should be taken that too much of it is not brought up in one season, as it would override, or neutralize the action.

But whilst a clay soil produces both the heaviest crop, and finest quality, many other descriptions of soil give good crops, under proper treatment.

In Canada there is a long period of fine weather after harvest, which will afford an opportunity of cleaning the land intended for flax or root-weeds; this is best done by scarifying, harrowing, rolling and raking just deep enough to bring the root-weeds to the surface,

when they should be removed, or burnt, and the ashes spread. If this be done early, an interval of a few weeks may be allowed to elapse before plowing, to let the small seeds vegetate. The land should then be plowed as deep as possible, (if stiff and difficult, with three or four horses, or oxen,) and allowed to remain open and exposed to the action of the frost during the winter, which greatly facilitates the working of it in Spring.

As soon as the frost and snow are gone, and the ground partially dry, or sufficiently so to admit of harrowing and rolling, it should be subjected to a thorough working of these implements, following each other, till the top is as fine as an *onion* bed, and the bottom so solid as to exclude the drought, which in any climate is injurious to the Flax, but in Canada would destroy it.

When the proper season for sowing arrives, (and this differs in different climates,) the land should be marked into ridges of 10 or 12 feet wide, to facilitate the sowing and pulling; and the seed at the rate of about 20 or 30 gallons to the Cunningham acre, or 24 to the English statute acre, sown and harrowed, with light clover harrows, and rolled. If the land be in good condition, this is an excellent preparation for clover, and it is often sown with Flax, and the pulling of this latter crop is understood to be favorable to the growth of clover, by moulding it, and leaving it to the free action of the atmosphere.

In pulling, great care should be taken to keep the ends even, as the value of the crop is more influenced by this operation being well executed than most people are aware of, and if not attended to in the pulling it can never be effectually remedied afterwards. If rushes can be procured for bands it will save a considerable quantity of the flax, and be much more convenient for tying it; the sheaves should be small to facilitate the steeping and spreading, and if it can be correctly *struck* in the water the shorter time it remains on the grass the better; the ponds for steeping should be 3½ or 4 feet deep care being taken to avoid iron or other mineral springs, which would prevent it from bleaching white; the best water being soft running water, and the warmer it is the shorter time will it require to remain in it. I have known it to water in five days, and to take *twenty-one*, but generally in this climate ten.

If the sheaves be packed neatly on their root end, standing nearly straight, or but slightly leaning towards the end of the pond at which the filling has commenced, it will water more equally than if put in less regularly, and will be more easily taken out and less subjected to be straggled, or torn. When the pond is full the flax should be covered with straw or grass to protect it from the sun, when it rises above the water which it will do, no matter how deep when the fermentation takes place; it should also have a quantity of flat stones, or pieces of timber laid at short intervals over it, to keep it under water, and be tramped down twice a day or as often as it rises up, during the first few days; but it will sink after the fermentation, and should then be carefully watched, to ascertain when it is ready for removal. This is one of the most *critical* stages, and on it a considerable part of the profits, or loss, may turn, and

if there be in the neighborhood any good judge he should be consulted. In the absence of such, a sheaf should be taken out, washed, and dried in the sun, and tried whether it would clean freely. If part of the sheaves or wood part, adhere to the fibre, it must remain a little longer in the steep, but experience alone can teach, and no directions can be given that would be understood by persons unacquainted with the matter, but I am certain there must be in every district of Canada many Irish and Belgians, fully up to the subject, and that little difficulty need be anticipated in procuring the services of such. In spreading care should be taken to shake it well and spread it evenly and thin, but if want of room should necessitate the spreading of it thicker, the rows should be at such a distance from each other as to admit of the flax being turned, then a *day or two* on the grass, in order to give an equal exposure and bleaching to both sides. If it has been properly watered, it need not remain more than two or three days on the grass. When lifted it is to be tied up in sheaves and put under cover of a house or shed, till it is convenient to remove it to the scutch mill.

While on this head, I may mention that the desideratum so long wished for by Flax growers in Ireland, viz., a machine for cleaning without the necessity of employing so-called *skilled* hands has been recently patented and brought out by the Messrs. Rowan of Belfast. (This is a piece of information which may be of great service to our friends in Canada, but which you are quite as well acquainted with as I am, having witnessed its operations with me), I believe it comes nearer to the requirements of the Flax growers both in this country and Canada than anything yet invented, and the fact that I, who never attempted to clean Flax in the old mills, found no difficulty in doing it in Rowan's is, I think, proof positive of its adaptation to unskilled labor. This machine, like most new inventions, has met with some opposition; it is objected to on the ground that it gives less cleaned Flax, than the old mill, but as this comes from *mill owners*, an interested party, it should be received with caution, and was not borne out by our experience.

That some modification of the *speed or rate* of driving the machine may be necessary to adopt it to the harder or softer qualities of flax I do not doubt, that it only requires a larger or smaller pulley on the scale, which costs little to effect.

The present seems a very favourable time for introducing the growth and preparation of flax into Canada. The demand for it in Belfast, Lurgan, Dundee, &c., is greater than can be supplied. The emigration of the province since the breaking out of the war in the United States, (aided by the information you have diffused here respecting Canada), has resulted I understand, in at least nine thousand more than in any former year. Many of these emigrants are from Ulster, the flax-growing portion of Ireland, and from Belgium, where it is equally well understood. The weekly intercourse between the St. Lawrence and the Foyle, and Mersey, by steam, affords an opportunity of forwarding the article at once to the

best Markets in the world, and of procuring such machinery for its preparation as may be required.

I have said nothing as to which seed should be preferred. Different soils and climates may require different kinds of seed, and a few experiments, by intelligent growers, may be necessary to decide which is best suited to Canada. Riga is generally preferred here, on account of its growing longer than Dutch or American; but these latter were in more favor some years ago, when the spinning was done on the small wheel, in every farm-house and cabin in Ulster, and was then thought to produce a *finer* article: but since machinery has taken the place of domestic manufacture the Riga is more generally sown.

You are aware that I had this year a barrel of Canadian seed, sown in the same field with five of Riga, as an experiment. The Canadian came up some days earlier than the Riga, and grew much more freely, up to the middle of June; it blossomed fully ten days earlier, and had fully three times the quantity of seed, but is on an average three inches shorter than the Riga. I am unable to say which will be the best quality, or the comparative quantities each will produce, not having got it cleaned out, but I hope to be able to give an account of them next week; I cannot doubt, however, that the Canadian grower of Flax would find his advantage in changing his seed either from Riga, or Holland, at least every second year, as like every other crop it has a tendency to degenerate when often grown in the same locality, especially if that be not its native, and this is evinced by the immense quantity of seed sown by the Canadian here.

I sent two barrels of Riga flax seed last year to the Messrs. Perim, but it was delayed at Liverpool and Portland, and did not reach them in time for that year's sowing; I suppose however, they will have tried it this year, and if carefully kept it may do pretty well, but can scarcely be considered a fair trial, compared with new. You can, however, hear from them on the subject when you return to Canada, and if you or any of your friends should desire it, I will have great pleasure in selecting and forwarding any quantity you may require, on the arrival of this year's growth.

From what I have written, as well as from your own observations during spring and summer, it is plain that flax growing and preparation, is both troublesome and expensive, but the question which has to be answered is, "will it pay, and leave a greater profit than any other crop?" If this question can, on a fair trial, be answered in the affirmative, the trouble and expense will be disregarded by industrious farmers in Canada as well as here.

Some objections may be made to the steeping, on the ground of its tainting the water and the air, and possibly those unacquainted with it may think that the smell, which is disagreeable, may be also unwholesome, but it has never been found so either in France, Belgium, or Ireland, and no healthier women can be seen than those who are employed during the whole flax season in pulling, spreading, and lifting it.

The objections as regards the water applies in an especial manner, or rather it is confined

to the owners of fisheries; but I do not know whether the fisheries in Canada are owned by individuals, or are common property, and on that would turn the validity of the objection, if made.

In estimating the profit of flax cultivation, some allowance should be made for the employment it gives, and the increased or additional crop it introduces into the rotation, by which variety the land is enabled to yield more in a given number of years than by confining it to the growth of any class of crops exclusively. Employment too, in working a succession of crops as flax, hay, wheat, oats, &c., is more spread, and consequently less crowded into a few weeks than otherwise it would be, and is more continuous and certain.

You have seen what the linen manufacture of Ulster, which has its root in the growth and preparation of the raw material, has done, in raising it to its present state of wealth and comfort, as compared with the other provinces, so much more favored by nature, in soil and climate, and which has made Belfast the manufacturing and commercial metropolis of Ireland; and, looking at the soil, the minerals, the lakes and rivers of Canada, with the origin of its population, its free government, and its educational establishments, I see enough to indicate a bright future for it too, if you but go to work with a fixed determination to succeed.

Wishing you a safe and pleasant voyage and happy reunion with your family,

I remain, dear Sir,

Very sincerely yours,
ROBERT McCREA.

GRANGE HOUSE, }
Strabane, 29th Aug., 1861. }

CANADA AS A FIELD OF FLAX CULTURE.

(From the Belfast Northern Whig, Aug. 28.)

The never-ceasing energy of the Lancashire cotton-spinners has been the wonder of all nations at all able to comprehend the gigantic efforts they have made, year after year, for the larger supply of raw material. In their case neither time nor money has been spared for the accomplishment of the great object in view, and the result has been to bring into play an annually increasing amount of cotton wool equal to the almost illimitable wants of the spindles. Last year there were imported into the United Kingdom 12,419,000 cwts. of raw cotton, against 5,150,500 cwts. imported in 1840. Owing to the existing state of affairs in the different states of America, a decrease of supply may be looked for from thence; and, to avert the consequences of any material falling off, the Cotton Supply Association has been actively at work. Already the agents of that institution are busily engaged in Egypt and the West Indian Islands, while east of the Ganges there are hosts of influences engaged in extending the growth of the Oriental staple.

Some few weeks ago, an inquiring gentleman wrote to the London papers on the vital question of cotton supply, and in course of his observations he proposed a new mode of preparing flax fibre so as to cottonise it, and thus add to the supply of material for muslin goods. The

plan was excellent in its way, and brimful of ingenuity: but, unfortunately for its practical application, the spindles of our own staple trade have only been partially supplied with flax for some years past; there is, consequently not a single pound of that article to spare from its legitimate source of consumption. To give effect to any plan of producing from flax a substance like cotton we must first have enough and to spare—a result not likely to be realised for some years to come.

Merchants and other capitalists connected with the linen trade have been making great exertions, for years past, to bring about a more ample supply of raw material; but, to this day the effect of their exertions has only been partial, and still the cry of famine in the flax market rings from Belfast to Dundee, and from Dunfermline to Leeds. During the last forty years, the value of raw cotton has so fallen in price that its manufacturers have been enabled to produce goods suited to the wants of all classes, and thus the use of muslin and calico as articles of clothing has become so general in nearly all parts of the world that steam-power, acting on spindle and loom, is taxed to the uttermost of its gigantic strength to meet the necessities of the millions of people of all nations and climes who clothe themselves with the products of the cotton plant. We have alluded to the vast reduction which has taken place in the cost of cotton wool since 1841, but from that date no such change has occurred in the value of flax; and hence the linen trade has lost all the advantages which would inevitably have resulted from a gradually downward figure in the price of raw material.

Within the last few days, we have had some conversation with the highly intelligent gentleman who, as the accredited agent of the Canadian Government, has been sent over to this country for the purpose of ascertaining the probabilities of success in an extended system of flax culture in Upper Canada. From all we have been able to ascertain on the subject, there seems to be no doubt that, by due energy on the part of the Canadians, coupled with a fair prospect of remunerative prices here, the lands of that colony would soon produce very large additions to our present supplies of flax. It is well known to those acquainted with the agricultural affairs of Canada, that many of the farmers there have for years past been growing wheat on the same lands, until, as was once the case with the potato fields of the South and West of Ireland, the soil has been seriously deteriorated in its productive powers. The change, therefore, from incessant cropping with one description of grain to the rotatory system caused by the introduction of flax-growing would benefit the soil hardly less than it would advantage the cultivator.

It has been said that labour is still too high in Canada to admit of any remarkable success in the growth of an article that requires so much attention during all its stages of culture; but those who argue thus forget that the Canadian colonist is the monarch of the soil on which he has located himself. The land is his own property, purchased direct from the Crown; he does not owe fealty to any landlord. Where he stands, within the limits of

his farm, he is its chief; and the extent of local taxation does not exceed a fractional percentage on the value of his land. Then, as to the nominal price of labour, we grant it is far above the value in this country. As a set-off, however, it may be stated that an able-bodied man will do as much work there in the course of a day, as is usually performed here in a day and a half. Agricultural energy is pushed on with great spirit; in fact, the farmer and his operatives seem to work with the steam at high pressure.

If then, the Canadian flax-grower has so many things in his favour—if he has lands which contain all the elements so peculiarly required for the food of the plant—we do not see why he should not be able to produce a quality of fibre which would fully remunerate him for his outlay and enterprise. What with the recent improvements in the machinery for spinning linen yarn, and the remarkable success that has attended the adaptation of steam to the linen loom, there seems to be no limit to the quantity of flax that could be worked up in the United Kingdom, were that flax produced in such amplitude and at such prices as would give full play to the taste for the wear of linen as an article of clothing. For some years past, the supplies of flax have actually been falling off in this country. In 1853, there were 1,882,400 cwts. of foreign flax imported, and 867,000 cwts. growing in Ireland. Last year the imports only amounted to 1,464,300 cwts., and the produce of Irish lands did not exceed 650,000 cwts. While this decline was going on in the supplies of flax, those of cotton rose from 8,500,000 cwts. to 12,419,000 cwts.

The India Flax Society has gone to work in right earnest, and, we doubt not, will be able to produce large accessions to existing supplies; but, granting all this, there will still be a wide field of operations; and that field might be well located in Canada. Were the farmers of that colony to raise annually three hundred thousand acres of flax, every single stone weight of the produce could be worked up by Irish spindles alone. We would request the special attention of spinners, manufacturers, and bleachers to this subject. It is a vital one now, more than ever it was before. With the ports of France opening to us, Belgium will also take largely of our yarns and linens.

The Hanse Towns, with their half million of people, took last year ten million yards of our linen cloth; and Holland, with its population only equal to that of the city of London, took three and a half million pounds of yarn. Other States are following in the wake of these Free-trade countries; but, to enable our capitalists to take full advantage of the favorable openings for yarns and goods, there must be a full supply of cheap material. Canada is now within nine days' run of the Irish coast; facility of transport is, consequently on the side of the enterprise; and if the flax-spinners and merchants of Belfast, and other seats of the manufacture, join with the Canadian Government in setting the thing afloat, the project cannot fail of success. So far as we can learn from merchants conversant with the

subject in Canada, as well as from the Government agent now in Ireland, the farmers require little more than something like certainty; but, if they produce flax of a certain quality, they will be sure of getting a ready market for it.

Numbers of North of Ireland farmers are located in York, of which Toronto is the capital. These men will only require a short education to enable them to grow flax at least as well as their relatives who still reside in the old country. If farmers here can raise thirty-five to forty stones of clean fibre to the statute acre, Canadian settlers will soon be able to take as much out of their adopted soil.

THE UPPER CANADA PROVINCIAL EXHIBITION.

The Provincial Exhibition held during last week in the city of London, was, in our opinion, an entire success. The weather during the week was delightful, and the arrangements on the ground for the convenience of exhibition certainly far exceeded our expectations. The people of London cannot receive too much praise for the exertions they put forth to render the Exhibition of 1861 creditable to Canadians. The Exhibition Grounds comprised about 36 acres, in a very pleasant part of the city. Very extensive and substantial sheds were erected. There were 94 horse-boxes, each 6 feet broad, with double doors; 58 cattle-sheds, each 12 feet broad; 120 sheep-pens, 100 pig-pens, and sheds of ample dimensions for poultry, carriages, &c. Altogether these wooden erections were three quarters of a mile in length. The extent and variety of the Show will be seen, when we state that the number of entries made up to Monday night last week—the Exhibition opened on the 24th—was over six thousand. Of horses there were 454; of cattle, 731. The number of sheep entered was 805. Of pigs there were 255; of poultry, 287 entries. The Exhibition Building was very commodious, and is intended as a permanent structure. To attempt to particularize the various classes and departments would be impossible in the space we have now left at our disposal; but we shall do so in our next issue. We may say, however, that the entries largely exceed in number those of the great metropolitan Show in 1858, while they equal those made at Hamilton last year, which were so greatly stimulated on account of the visit of the Prince of Wales being coincident with the holding of the Show. On Thursday 23,000 tickets were sold, and 30,000

persons were estimated to be on the ground at one time. Only one Lower Canadian appears to have drawn a prize.—Mr. Warren organ-builder of this city, for a melodeon. London is rather far off for Lower Canada competition. More in our next.

COUNTY OF TERREBONNE AGRICULTURAL SOCIETY.

The annual show of Cattle and Farm produce was held in the Town of Terrebonne on Thursday the 12th Sept. The day previous was raining, which rendered the road very bad and prevented in some measure the usual large attendance at the annual gathering. We had anticipated the presence of the newly elected and popular member L. Labrech-viger, Esq., but we suppose the bad state of the roads and the unsettled weather may have prevented him from attending. The Terrebonne Brass Band was present and discoursed *sweet music* during the day. A very large party sat down to dinner at Mr. Perrin's, presided over by the President Mr. Turgeon, Jr. The greatest harmony prevailed and the party broke up at an early hour. The following are the awards:—

Best managed Farms.—1st, Mrs. Hettrick; 2nd, P. J. Marier; 3rd, A. Payment; 4th, J. Lonorgan; 5th, J. Gilmour; 6th, A. Miller.

CANADIAN CLASSES.

Spring Wheat.—1st, F. X. Limoges; 2nd, J. B. Waddle; 3rd, J. O. A. Turgeon.

Fall Wheat.—1st, J. Filiatrault; 2nd, J. Godbois; 3rd, F. X. Limoges.

Borley.—1st, F. S. Dubois (fils); 2nd, P. E. Manner; 3rd, Oct. Ouimet; 4th, J. B. Waddle; 5th, C. Cadet.

Oats.—1st, Severn Gratton; 2nd, J. O. A. Turgeon; 3rd, J. Filiatrault; 4th, O. Ouimet; 5th, D. Limoges.

Peas.—1st, S. Gratton; 2nd, C. Cadet; 3rd, N. Payment; 4th, F. Dubois, fils; 5th, J. Filiatrault.

Rye.—1st, F. Dubois, père; 2nd, F. Ouimet; 3rd, O. Ouimet.

Hay.—1st, N. Payment; 2nd, R. Filicu; 3rd, O. Ouimet; 4th, L. Leclair; 5th, F. Dubois, père.

New Meadow.—1st, F. Forget; 2nd, P. E. Marier. 3rd, J. O. A. Turgeon; 4th, C. Cadet; 9th, J. B. Waddle.

Pasture.—1st, J. B. Waddle; 2nd, A. Leclair; 3rd, J. O. A. Turgeon; 4th, A. Payment; 5th, P. E. Marier.

BRITISH CLASS.

Spring Wheat.—1st, J. Kimpton; 2nd, A. Kimpton.

Fall Wheat.—1st, A. Kimpton; 2nd, M. Moody.

Barley.—1st, A. Kimpton; 2nd, W. Miller; 3rd, A. Miller.

Oats.—J. Kimpton; 2nd, W. Miller; 3rd, Mrs. Hettrick.

Peas.—A. Miller; 2nd, Mrs. Hettrick; 3rd, J. Kimpton.
New Meadows.—1st, A. Kimpton; 2nd, J. Oswald; 3rd, J. Gilmour.
Pasture.—1st, M. Gilmour; 2nd, W. Miller; 3rd, J. Oswald.

MIXED CLASSES.

Indian Corn.—Mrs. Hettrick; 2nd, N. Desjardans; 3rd, F. Dubois, père; 4th, P. E. Morier; 5th, J. Filiatrault; 6th, A. Brazeau.
Potatoes.—1st, Mrs. Hettrick; 2nd, W. Miller; 3rd, A. Miller; 4th, J. Gilmour; 5th, F. Lenoyar; 6th, J. Kimpton.
Carrots.—1st, A. Payment; 2nd, A. Miller; 3rd, J. B. Waddle.
Turnips.—1st, J. Kimpton.
Beets.—1st, A. Payment; 2nd, F. X. Limoges; 3rd, N. Leclair; 4th, A. Miller; 5th, J. Kimpton; 6th, A. Kimpton.
Horses, Aged Studs.—1st, W. Miller; 2nd, A. Leclair; 3rd, L. Leclair.
Studs under 4 years.—1st, L. J. A. Turgeon; 2nd, O. Limoges; 3rd, F. X. Limoges.
Mares and Foal.—1st, P. E. Marier; 2nd, A. Kimpton; 3rd, A. Miller; 4th, W. Miller; 5th, C. Cadet, fils.
Studs under 3.—L. J. A. Turgeon; 2nd, L. Leclair; 3rd, J. O. A. Turgeon.
Fillies under 4.—1st, ———; 2nd, W. Miller; 3rd, H. Fraser.

FRENCH CANADIAN CLASSES.

Aged Bulls.—1st, P. E. Marier; 2nd, S. Dubois; 3rd, L. Leclair; 4th, J. Jerome.
Bulls under 3.—1st, A. Leclair; 2nd, R. Filion; 3rd, O. Limoges; 4th, C. Cadet, fils; 5th, J. Gadbois.
Bulls under 2.—1st, J. O. A. Turgeon; 2nd, D. Forget; 3rd, A. Payment; 4th, F. Forget.
Cows.—1st, C. Cadet, fils; 2nd, P. E. Marier; 3rd, A. Leclair; 4th, L. J. A. Turgeon; 5th, F. Forget.
Heifers under 3.—1st, Ch. Cadet; 2nd, L. J. A. Turgeon; 3rd, A. Leclair; 4th, ———; 5th, J. O. A. Turgeon.
Heifers under 2.—1st, P. E. Marier; 2nd, A. Payment; 3rd, C. Cadet, fils; 4th, J. O. A. Turgeon; 5th, H. R. Turgeon.
Sheep, Aged Rams.—1st, J. Jerome; 2nd, A. Brazeau; 3rd, C. Cadet, fils; 4th, ———; 5th, S. Dubois.
Young Rams.—1st, J. Brunet; 2nd, O. Limoges; 3rd, L. Leclair; 4th, J. Gadbois; 5th, S. Dubois.
Aged Ewes.—1st, A. Payment; 2nd, F. X. Limoges; 3rd, S. Dubois; 4th, A. Leclair; 5th, A. Brazeau.
Young Ewes.—1st, A. Payment; 2nd, A. Leclair; 3rd, J. Gadbois; 4th, L. Leclair; 5th, C. Cadet, fils.

BRITISH CLASSES.

Aged Bulls.—1st, A. Kimpton; 2nd, J. O. A. Turgeon.
Bulls under 3.—1st, J. Kimpton; 2nd, H. Frazer.
Bulls under 2.—1st, J. Linorgan; 2nd, D. Limoges; 3rd, L. Leclair.
Cows.—1st, J. Kimpton; 2nd, A. Kimpton; 3rd, L. J. A. Turgeon.
Heifers under 3.—1st, N. Moody; 2nd, H. Frazer; 3rd, J. Kimpton.

Heifers under 2.—1st, M. Moody; 2nd, A. Kimpton; 3rd, J. Kimpton.
Sheep, Aged Rams.—1st, J. Gilmour; 2nd, A. Leclair; 3rd, J. Brunet.
Young Rams.—1st, A. Miller; 2nd, W. Miller; 3rd, T. Linorgan.
Aged Ewes.—1st, W. Miller; 2nd, A. Miller; 3rd, M. Gilmour.
Young Ewes.—1st, A. Miller; 2nd, W. Miller; 3rd, J. Linorgan.

MIXED CLASSES.

Young Boars.—1st, H. Frazer; 2nd, M. Moody; 3rd, F. Dubois, fils.
Young Sows.—1st, F. X. Limoges; 2nd, A. Kimpton; 3rd, R. Turgeon.
Butter.—1st, M. Gilmour; 2nd, A. Leclair; 3rd, J. Kimpton; 4th, J. B. Waddle; 5th, F. Forget.
Cheese.—1st, J. Gilmour; 2nd, M. Gilmour.
Etoffe.—1st, R. Filion; 2nd, G. Ouillette; 3rd, J. Jerome; 4th, M. Gratton; 5th, D. Forget.
Flannel.—1st, O. Ouimet; 2nd, A. Leclair; 3rd, F. Forget; 4th, A. Brazeau; 5th, O. Leclair.
Linen.—1st, F. Forget; 2nd, J. Filiatrault; 3rd, M. Gratton; 4th, F. Ouimet; 5th, F. Dubois, pere.
Manufactured Articles.—1st, O. Ouimet; 2nd, M. Desjardans; 3rd, F. Ouimet.
Sugar.—1st, J. Filiatrault; 2nd, F. X. Limoges; 3rd, Martin Gratton.

JACQUES CARTIER AGRICULTURAL SHOW.

This came off in a field belonging to Mr. Dawes, at Lachine, on Wednesday last. The Society has now been in existence six years; and this was the best show of stock yet exhibited. It is almost impossible to draw particular attention to the best animals where all were so good, and as the prize list shows to whom the judges awarded an extra degree of merit. But we may mention that Mr. Thomas Hodge, of St. Laurent, had a fine three year old stallion, which deserved by the reports of the experts the first prize; but he was not allowed to compete, owing to a failure to comply with the regulations, by showing his horse at the last spring horse show, as usual, which is always required in order to be able to compete in the fall. A directly opposite decision was given in the case of Thomas Macready, of this city, who, though he had in this and every other respect complied with the regulations, was not allowed to show his stallion, "Black Prince," a six year old, sired by "Cœur de Léon," and which served about thirty mares this season in the county,—because it was said he would carry off the prize against all comers. How to reconcile this treatment with fair play we leave to the

directors of the Society and the members who elect them. Mr. Thomas Dawes had a splendid imported boar on the ground; but declined to compete, owing to a law of the Society compelling him to give the use of the animal for a dollar to any member and any breed. Mr. Sommerville, of Lower Lachine, had a splendid Leicester ram and ewes. But it is unnecessary for us further to particularize. The dinner took place at Laflamme's Hotel, the President, Allan Sommerville, Esq., in the chair. About sixty gentlemen sat down; among others Messrs Dow, Benny, Shipway, Langlands, &c., from Montreal. The health of the judges, prosperity to the Society, and other usual and appropriate toasts were given and responded to. The press was proposed by Mr. White, of Lachine, and responded to by Mr. Rennie of the Montreal Pilot. The dinner was first-rate; we have rarely sat down to a table so loaded with good things, in such variety and so well cooked. The wines were excellent, for all which Mr. Laflamme and his assistant, Mr. McBride, received the thanks of the gentlemen present. The following is the prize-list, kindly furnished us by Mr. Le Cavalier, the Secretary-Treasurer:

GENERAL COMPETITION.

Draught Stallions.—1st prize, John Jackson, Lachine; 2nd, Samuel Biron, Pte. Claire; 3rd, Charles Valois, Lachine; 4th, Thomas Tait, St. Laurent.

3 year old Stallions.—1st prize, Benjamin Boyer, St. Laurent; 2nd, C. Valois, Lachine.

2 year old Colts.—1st prize, Wm. Chalmers, St. Laurent; 2nd, Jean Baptiste Legault, Lachine.

Blood Mares.—1st prize, Thomas Dawes & Son, Lachine; 2nd, Academie Industrielle de St. Laurent; 3rd, Michel Roy, Lachine; 4th, Henri Pigeon, Lachine; 5th Louis Dagenais, Pointe Claire; 6th, Laurent Verdrou, St. Laurent.

2 year old Fillies.—Thomas Dawes & Son, Lachine; 2nd, L. Dagenais, Pointe Claire; 3rd, Xavier Legault, Pointe Claire.

Canadian Cloth.—1st prize, Léon Legault, Pointe Claire; 2nd, James Shiells, Lachine; 3rd, Antoine Legault, Pointe Claire.

Flannel.—1st prize, Moise D. Goyer, St. Laurent; 2nd, Benjamin Legault, Pointe Claire; 3rd, Elie Robillard, Ste. Geneviève.

Canadian Lincn.—1st prize, Evariste Chaurette, Ste. Geneviève; 2nd, Joseph Dagenais, St. Laurent; M. D. Goyer, St. Laurent.

ENGLISH CLASS.

Aged Bulls.—1st prize, Alex. Sommerville, Lachine; 2nd, Daniel Carmichael, Lachine; 3rd, Andrew Hislop, St. Laurent; 4th, Wm. Boa, St. Laurent.

2 year old Bulls.—1st prize, Wm. Dow, Lachine; 2nd, George Smith, Lachine; 3rd, Peter McMartin, Lachine; 4th, James Shiells, Lachine.

1 year old Bulls.—1st prize, Thomas Smith & Son, Pointe Claire; 2nd, George Smith, Lachine; 3rd, David Muir, Lachine.

Cows.—1st prize, Thomas Dawes & Son, Lachine; 2nd, Wm. Dow, Lachine; 3rd, Jas. Shiells, Lachine; 4th, Robert Scott, Lachine.

2 year old Heifers.—1st prize, Thos. Dawes & Son, Lachine; 2nd, Alex. Sommerville, Lachine; 3rd, John Learmonth, Lachine; 4th, Wm. Dow, Lachine.

1 year old Heifers.—1st prize, Thos. Dawes & Son, Lachine; 2nd, Wm. Dow, Lachine; 3rd, Alex. Sommerville, Lachine; 4th, Thomas Hodge, St. Laurent.

Aged Rams.—1st prize, Thomas Smith & Son, Pointe Claire; 2nd, George Smith, Lachine.

Rams of one Shear.—1st prize, Geo. Smith, Lachine; 2nd, Andrew Hislop, St. Laurent; 3rd, James Muir, Lachine.

Aged Ewes.—1st prize, Alex. Sommerville, Lachine; 2nd, Peter McMartin, Lachine; 3rd, James Muir, St. Laurent; 4th And. Hislop, St. Laurent.

Ewes of one Shear.—1st prize, Peter McMartin, Lachine; 2nd, George Smith, Lachine; 3rd, Thomas Smith & Son, Pointe Claire.

Aged Boars.—1st prize, George Smith, Lachine; 2nd, John Taylor, Pointe Claire.

Boars under 6 months.—1st prize, John Taylor, Pointe Claire; 2nd, Thomas Hodge, St. Laurent; 3rd, Wm. Dow, Lachine.

Sows.—1st prize, Thomas Dawes & Son, Lachine; 2nd, James Muir, St. Laurent; 3rd Thomas Hodge, St. Laurent; 4th, D. Campbell, St. Laurent.

Cheese.—1st prize, Alex. Sommerville, Lachine; 2nd, Wm. Anderson, St. Laurent.

Salt Butter.—1st prize, Wm. Boa, St. Laurent; 2nd, Thos. Harland, St. Laurent; 3rd, James Shiells, Lachine; 4th, Wm. Anderson, St. Laurent.

FRENCH CLASS.

Aged Bulls.—1st prize, Academie Industrielle de St. Laurent; 2nd, Joseph Robillard, Ste. Anne; 3rd, Joseph Legault, Lachine; 4th, Louis Dagenais, Pointe Claire.

2 year old Bulls.—1st prize, Léon LeCavalier, St. Laurent; 2nd, Jean B. Meloche, Ste. Geneviève; 3rd, Joseph Cousineau, St. Laurent; 4th, François LeCavalier, St. Laurent.

1 year old Bulls.—1st prize, Félix Brunet, Ste. Geneviève; 2nd, Rémi LeCavalier, St. Laurent; 3rd, Guillaume LeCavalier, senior, St. Laurent.

Cows.—1st prize, Louis Boudriers, Lachine; 2nd, Michel Roy, Lachine; 3rd Charles Léger, Lachine; 4th, François Caillé, St. Laurent.

2 year old Heifers.—1st prize, Michel Roy, Lachine; 2nd, Jean B. Lecours, St. Laurent; 3rd, Félix Lecours, St. Laurent; 4th Rémi LeCavalier, St. Laurent.

1 year old Heifers.—1st prize, André Charlesbois, Pointe Claire; 2nd, Joseph Legault, Lachine; 3rd, Amable Brunet, Ste. Geneviève; 4th, Joseph Robillard, Ste. Anne.

Aged Rams.—1st prize, Pierre LeCavalier, St. Laurent; 2nd, Augustin LeCavalier, St. Laurent.

Rams of one Shear.—1st prize, Olivier Desforges, St. Laurent; 2nd, Cléophas Groux, St. Laurent; 3rd, Joseph Roy, Lachine.

Aged Ewes.—1st prize, Dosithe Allard,

Lachine; 2nd, Joseph Lamarche, Ste. Anne; 3rd, Benjamin Lefebvre, Lachine; 4th, Her. Viau, St. Laurent.

Ewes of one Shear.—1st prize, André Charlesbois, Pointe Claire; 2nd, Benjamin Boyer, St. Laurent; 3rd, Joseph Legault, Lachine; 4th, François LeCavalier, St. Laurent.

Aged Boars.—No competitors.

Boars under 6 months.—1st prize, Rémi LeCavalier, St. Laurent; 2nd, Jean B. Groux, St. Laurent; 3rd, Jean B. Meloche, Ste. Geneviève.

Sows.—1st prize, Joseph Dagenais, St. Laurent; 2nd, Léon Legault, Pointe Claire; 3rd, Placide LeCavalier, St. Laurent; 4th, Rémi LeCavalier, St. Laurent.

Cheese.—1st prize, Xavier Legault, Pointe Claire; 2nd, Léon Legault, Pointe Claire.

Salt Butter.—1st prize, André Charlesbois, Pointe Claire; 2nd, Benjamin Legault, Pointe Claire; 3rd, Benjamin Lefebvre, Lachine; 4th, Isid Théoret, Pointe Claire.

Green Crops.—ENGLISH CLASS.

Potatoes.—1st prize, Thomas Dawes & Son, Lachine; 2nd, Andrew Hislop, St. Laurent; 3rd, Thomas Smith & Son, Pointe Claire; 4th, Wm. Dow, Lachine.

Mangle Wurtzel.—1st prize, Wm. Dow, Lachine; 2nd, Alex. Sommerville, Lachine; 3rd, Thomas Smith & Son, Pointe Claire; 4th, George Smittl, Lachine.

Carrots.—1st prize, Wm. Dow, Lachine; 2nd, Alex. Sommerville, Lachine; 3rd, Thos. Smith & Son, Pointe Claire; 4th, Laurent Verdon, St. Laurent.

Horse Beans.—1st prize, Thomas Dawes & Son, Lachine; 2nd, Wm. Dow, Lachine; 3rd, James Shiells, Lachine; 4th Rémi Legault, St. Laurent.

Indian Corn.—1st prize, Pierre Martin, St. Laurent; 2nd, Antoine Durocher, St. Laurent; 3rd, Wm. Boa, St. Laurent; 4th, Toussaint Montpellier, St. Laurent.

Turnips.—1st prize, Robert Scott, Lachine; 2nd, Thomas Dawes & Son, Lachine; 3rd, Patrick Fallon, Lachine.

Best cultivated Farm.—1st prize, Alex. Sommerville, Lachine; 2nd Wm. Boa, St. Laurent; 3rd, Andrew Hislop, St. Laurent.

FRENCH CLASS.

Potatoes.—1st prize, Frs. Brunet, Ste. Geneviève; 2nd, Moïse D. Goyer, St. Laurent; 3rd, Rémi LeCavalier, St. Laurent; 4th, Joseph Robillard, Ste. Anne.

Mangle Wurtzel.—1st prize, Jos. Robillard, Ste. Anne; 2nd, Léon Legault, Pointe Claire; 3rd, Olivier Desforges, St. Laurent; Benjamin Lefebvre, Lachine.

Carrots.—1st prize, Léon Legault, Pointe Claire; 2nd, Olivier Desforges, St. Laurent; 3rd, Jos. Robillard, Ste. Anne; 4th, Benjamin Lefebvre, Lachine.

Horse Beans.—1st prize, Dame Garipey, St. Laurent; 2nd, Olivier Desforges, St. Laurent; 3rd, J. B. Lecours, St. Laurent; 4th, Benjamin Boyer, St. Laurent.

Indian Corn.—1st prize, Jos. Dagenais, St. Laurent; 2nd, Wm. Loyer, Pointe Claire; 3rd, Prosper Théoret, Ste. Geneviève; 4th, Benjamin Lefebvre, Lachine.

Turnips—1st prize, Jean B. Lecours, St. Laurent; 2nd, Rémi LeCavalier, St. Laurent; 3rd, Jos. Robillard, Ste. Anne.

Best cultivated Farm.—1st prize, Jean Bte. Meloche, Ste. Geneviève; 2nd, Jean Bte. Lecours, St. Laurent; 3rd, Olivier Desforges, St. Laurent.

GENERAL COMPETITION.

Summer Fallow.—1st prize, Thos. Smith & Son, Pointe Claire; 2nd, Guillaume LeCavalier, jun., St. Laurent; Onesime Prudhomme, St. Laurent.

COUNTY OF LAVAL.

The annual exhibition of the above County took place at the charming Village of Ste. Rose. The weather was remarkably fine, and a very numerous gathering of the farmers of the county, with their wives and daughters, were present.

The number and quality of the animals and articles exhibited far exceeded any previous show. 262 entries, in the various classes, were recorded in the Secretary's Books.

Our attention was much drawn to the show of mares, and their foals; upwards of 20 were on the ground. The show of swine far exceeded anything we have seen in this neighbourhood before. A large party sat down to dinner at M. Mantha's Hotel. Among the persons present we observed, Hon. M. Morin M. P. P., J. B. D'Aoust, Esq., M. P. P.; J. G. A. Turgeon, President of the Terrebonne County Society, &c., &c.

The Terrebonne Brass Band was in attendance, and played several airs both on the ground, and at dinner. The whole affair went off with the greatest harmony and good will. The following is a list of the awards:

Well Managed Farms.—1st, Col. Webster; 2nd, J. B. Dagenais; 3rd, F. Lavoie; 4th, J. Kimpton; 5th, L. Belair; 6th, C. Therrien; 7th, W. Woodwork.

Wheat.—1st, Col. Webster; 2nd, J. B. Deloria; 3rd, L. Leclair; 4th, G. Legris; 5th L. Belair; 6th, P. A. Desjardins.

Barley.—1st, J. F. Filiatrault; 2nd, F. Lavoie; 3rd, W. Woodwork; 4th, J. B. Dagenais; 5th, A. Belair; 6th, J. Young.

Oats.—1st, L. Belair; 2nd, E. Ouimet; 3rd, T. Willing; 4th, T. Mojer; 5th, F. Charbonneau; 6th, O. Ouimet.

Pease.—1st, R. Marshall; 2nd, J. Young; 3rd, M. Ouimet; 4th, W. Nelson; 5th, J. A. Desjardins; 6th, P. Gravel.

Potatoes.—1st, R. McQuillan; 2nd, F. Kimpton; 3rd, J. B. Filiatrault; 4th, P. Gravel; 5th, Leon Belair; 6th, E. Derbreil.

Hay.—1st, M. A. Desjardins; 2nd, P. A. Desjardins; 3rd, A. Major; 4th, M. Ouimet; 5th, J. B. Dagnais.

Indian Corn.—1st, F. Kimpton; 2nd, M. Ouimet; J. B. Deloria.

New Meadow.—1st, James Roung; 2nd, G. Therrier; 3rd, J. Lavoie; 4th, W. Nelson; 5th, F. Kimpton; 6th, M. Ouimet.

Carrots.—1st, W. Woodwork; 2nd, F. Kimpton; 3rd, A. Lapiere; 4th, J. B. Dagneis; 5th, James Young.

Beats.—1st, J. B. Dagenais; 2nd, F. Kimpton; 3rd, A. Lapiere; 4th, Z. Ouimet; 5th, P. Ouimet.

Horses, Aged Studs.—1st, P. Belair; 2nd, F. X. Auclair; 3rd, J. B. Beautron.

Mules and Foals.—1st, Jean Gagnon; 2nd, T. Hotte; 3rd, G. Leonard; 4th, R. Marshall; 5th, E. Major; 6th, L. Dazé; 7th, Michel Ouimet.

Fillies under 4.—1st, Jean Gagnon; 2nd, Col. Webster; 3rd, L. Leclair; 4th, J. A. Charbonneau; 5th, T. McQuilam.

Aged Bulls.—1st J. B. Meunier; 2nd, U. Hortie; 3rd, P. Maisonneuve; 4th, G. Legris; 5th, Luc David; 6th, T. Willimy.

Bulls under 3.—1st, R. Marshall; 2nd, F. Chapleau; 3rd, P. Ouimet; 4th, ———; 5th, A. Belair; 6th, L. Dazé.

Bulls under 2.—1st, A. Hoyge; 2nd, ———; 3rd, Z. Ouimet; 4th, P. Hortie; 5th, F. Gravelle; 6th, T. Major.

Cows.—1st, A. Belair; 2nd, O. Ouimet; 3rd, P. Ouimet; 4th, Col. Webster; 5th, P. Hortie; 6th, Z. Ouimet.

Heifers under 3.—1st, Z. Ouimet; 2nd, J. Young; ———; 4th, E. Ouimet; 5th, O. Ouimet.

Heifers under 2.—1st, ———; 2nd, Narcisse Gravelle; R. Marshall; 4th, E. Dubreil; 5th, F. Ouimet.

Aged Rams.—1st, E. Ouimet; 2nd, F. Ouimet; 3rd, J. Young; 4th, P. A. Desjardins; 5th, F. Kimpton; 6th, E. Dubreuil.

Young Rams.—1st, J. B. Meunier; 2nd, ———; 3rd, W. Woodwork; 4th, L. David; 5th, D. Lemay; 6th, P. A. Desjardins.

Aged Ewes.—1st, ———; 2nd, Michel Ouimet; 3rd, T. Willimy; 4th, A. Major; 5th, ———; 6th, Col. Webster.

Young Ewes.—1st, ———; 2nd, ———; 3rd, T. Hotte; 4th, A. Mayor; 5th P. A. Desjardins; 6th, W. Woodwork.

Boars.—1st, M. Hotte; 2nd, W. Woodwork; 3rd, T. Dagnais; 4th, P. Hortie; 5th, F. Lavoie.

Sows.—1st, J. Young; 2nd, R. Marshall; 3rd, M. Hotte; 4th, T. Dagnais; 5th, A. Trudeau.

Butter.—1st, J. B. Meunier; 2nd, F. Gravelle; 3rd, ———.

Etoffe.—1st, A. Hortie; 2nd, E. Ouimet; 3rd, P. Gravelle.

Flannel.—1st, P. A. Desjardins; 2nd, P. Hortie; 3rd, J. B. Meunier.

Linen.—1st, F. Vannier; 2nd, J. A. Charbonneau; 3rd, F. Bastien.

EDITOR'S NOTE.—We shall be glad if the Secretaries of the County Societies, will pleast forward us, either in French or English, the report of their meetings and the award of the prizes, so as to give as much as possible a local as well as general interest to the *Journal*.

On the other hand, we hope the Societies will give us their printing, which will be dispatched with diligence and care.

TO CORRESPONDENTS.

All communications for the English Edition of this Journal to be addressed to the Editor, Drawer 250, Post Office, Montreal. Of course it is expected they will be post paid. And correspondence ought to be sent, except in special cases, before the 20th of every month.

We postpone to our next issue a very interesting communication from Mr. Daly, the Montreal Emigration Agent, to whom we are much indebted for the information given us. He says: out of every twenty applicants made to me I could not more than supply, on an average, of one to one and a half or one to fifteen. These applications did not only come from this city and district, but a great many from Western and Central Canada. The following average of wages was readily offered, female servants from \$3 to \$5 per month; male house servants \$8 to \$12; gardeners and coachmen \$10 to \$15; farm laborers from £20 to £30 per annum. The scarcity of this emigration I can only attribute to our having this year a much better class than in former years. Although increased at least 100 per cent over last year, still the greater part appeared to have a fixed destination on arrival in this country; those who had not sufficient means to enable them to do for themselves, the greater part who sought this office since the opening of the navigation, was more for the purpose of seeking information as to localities of lands, &c., which was afforded them on all occasions, and I am happy to say that a great many did purchase. In our next number we will give the correspondence in full with our remarks.

AGRICULTURAL EXHIBITIONS IN OCTOBER.

Exhibition	Location	Month	Days
Gaspé No. 2	Basin de Gaspé	October	5
Maskinongé	Rivière-du-Loup	"	9
Richelieu	St. Victoire	"	9
Trois-Rivières	Trois-Rivières	"	22
Témiscouata	Trois Pistols	"	10
St. Hyacinthe	St. Hyacinthe	"	8
Nicolet No. 1	Bécancour	"	9
Ottawa No. 2	St. Rosalie	"	22
Wolf	Thurso	"	2
Pontiac	Dudswell's Corner	"	4
Montmorency	Clarendon Centre	"	15
Montcalm	Château Richer	"	15
St. Islet	St. Alexis	"	20
Bonaventure No. 2	St. Jean Port Joli	"	24
Ottawa No. 1	Mam	"	9
L'Assomption	Aylmer	"	9
St. Maurice	St. Roch de l'Acadian	"	3
Richmond	Yamachiche	"	3
Québec	Melbourne	"	2
Bellechasse	St. Foye	"	15
Mégantic	St. Charles	" 1 and 10	10
Lotbinière	Leods	" 22	22
Lotbinière	Lotbinière	" 15 and 16	16

MANUFACTURING REVIEW.

OCTOBER.

CONTENTS :—The International Exhibition of 1862, and the Universal Exhibition in 1851.—What has been done since in the mother country.—What has been done at home.—The Report of a Committee of the Board of Arts and Manufactures on the refusal of the Government to appoint a local commission for the World's Fair in 1862.—Petition of the Lower and Upper Canada Boards of Agriculture and Arts and Manufactures.—Commission granted by Government.—Classification of the articles exhibited such as adopted by Her Majesty's Royal Commission.—General arrangements and By-Laws.

THE INTERNATIONAL EXHIBITION OF 1862.

When the proposition to hold an International Exhibition in London, in 1851, was first put forward, the greatest obstacles to its successful accomplishment were found to consist in the prejudices of the great mass of the British people. The manufacturers and machinists dreaded the exposure of all the best specimens of their skill to the inspection and imitation of foreigners; others loudly condemned the folly of permitting their own countrymen to see and examine the finest productions of other lands, and thus inflicting a grievous injury upon the home trade. Every argument, in fact, that could be suggested by ignorance and jealousy was urged in opposition to this project. But at last the few who gave themselves up to the task, succeeded by their untiring energy and zeal after appealing to the common sense of the community, in removing such obstacles, and had at length the satisfaction of finding their efforts crowned with pre-eminence success. At this time, however, such prejudices no longer exist; all agree in acknowledging that so far from an exhibition of this kind proving an injury to the country, it is calculated to confer upon it an almost inestimable benefit. Already has this feeling been substantially manifested; a guarantee deed to the amount of £414,600 has been signed by nearly 1000 persons connected with or interested in Arts, Manufactures, and Commerce, a sum amply sufficient to carry out the enterprise without risk of loss or failure. Such an array of names indicates most clearly the general conviction that great good resulted from the exhibition of 1851, and that a suitable time has again arrived for testing and comparing the progress of all nations in Arts, Manufactures and all other departments of industry. It will be well then to consider briefly the grounds upon which the expectation is founded, that the exhibition to be held in 1862, will prove worthy of the age, and show that such an advance has been made in industrial processes as to warrant the promoters in deciding upon ten years as the proper period for the recurrence of such undertakings. First then let us refer to the progress of the nation since 1851.*

The population of Great Britain has largely increased. In 1851 it was 25,108,564, and in 1862 it will probably be 29,000,000. In London there will be next year half a million more inhabitants than in 1851. The people are better employed, and their social and intellectual condition is improved.

Railways have been extended from above 6000 to above 10,000 miles.

The electric telegraph has become universal, and in every direction facilities for communication have been increased. The duties on soap and paper, the only manufactures the prosperity of which was then thwarted by excise restrictions, have been repealed. All taxes on the dissemination of knowledge have been abolished, and increased facilities have been afforded for the circulation of knowledge by post. The import duties have been repealed, or very nearly so, on raw materials, the produce of foreign countries. The manufactures also of foreign lands have been admitted, free of duty, to compete with those of the country; old industries have been stimulated and improved. New industries have arisen.

In fine arts, painting and sculpture, it is hardly possible, except in very extraordinary periods, that a marked change can be observed in a single ten years; but this country certainly holds its own, as compared with the productions of other countries.

Photography, hardly known in 1851, has developed itself, and has become an important branch of art and industry, used alike by the artist, the engineer, the architect, the manufacturer, the merchant and the magistrate.

In the preparation of colours for printing and dyeing, most important discoveries have been made. The recently discovered and most beautiful and brilliant colours, called the "Aniline" series, are produced from coal and its products, and the facility of their application is so great that a complete revolution is taking place in the processes of dyeing and printing.

In the manufacture of glass great economy has been introduced; and the process, just perfected, of transferring photographs to glass, and permanently fixing them by the action of

* Condensed from an article in a recent number of the *Journal of the Society of Arts*, London.

fire, will add a new and beautiful style of ornamentation to buildings of every description. The manufacture of agricultural implements, and especially the application of steam power to them, has been so improved and extended that it is now a highly important branch of trade; and the exhibition of the improvements which have been made in spinning, weaving, and winding machinery, will afford interesting evidence of the mechanical progress in these branches of industry. In the manufacture of iron, improvements are also made; its production is continually being economized, and a metal between iron and steel is now produced, at one process, which heretofore required two or more processes, alike expensive and difficult.

In artificial light, the sphere of production is enlarged and light is cheaper, whereby hours are now available for industrial pursuits, and for the acquisition of knowledge by large numbers, which were formerly either unemployed or wasted. In steam power, especially that applied to railroads and to ocean steam navigation, economical appliances have advanced rapidly. In ship building the past ten years have produced vast changes. The navy and mercantile marine have advanced in scientific construction and mechanical arrangement.—The ocean steamers which were then employed in the postal service included but one of 2,000 tons; now there are many of nearly double that tonnage, with corresponding power and speed. In printing, great advances have been made; in the perfection of chromatic printing, and in the application of most expensive and most beautiful machinery to the printing of the daily journals. Invention and mechanical contrivances have thus kept pace with the requirements of intellect and the daily increasing love of knowledge.

The effect of the progress that has been made since 1851 is also shown by the rapid increase of colonial and foreign trade, and the much greater interest that foreigners take in England and English manufactures.

On such topics one might enlarge at any length, but enough has been said to show that, if the Exhibition of 1851 was "to form a new starting point from which all nations were to direct their further exertions," that of 1862 will surely still more efficiently perform that office, inasmuch as the basis upon which it rests is broader, the nations interested in the progress of civilization and commercial freedom more numerous, and the population to be stimulated to exertion enormously larger.

Since then so much may be expected from the mother country, in addition to what was done in 1851, surely expectations, in at least an equal proportion, may be formed respecting the position which Canada ought to take in the approaching Exhibition. Our country has since that time made enormous strides in everything that tends to its advancement and material progress. Then it had but recently emerged from a period of discontent and difficulty; now it is—as is acknowledged on all hands—the most flourishing and rapidly increasing in wealth and population of all the Colonies of the British Empire. It now has a system of railway and water communication

unsurpassed anywhere; the Victoria Bridge over the St. Lawrence being one of the greatest engineering triumphs in the world.

The Government declined to submit any grant in the estimates, for the purpose of having Canada represented in the Great Exhibition of 1862.

The following is an extract of a report from a Committee of the Board of Arts and Manufactures on this refusal:—

Your committee cannot express too strongly their sense of the evil done to the country by this, in their opinion, unwise economy. There can be no doubt that nothing has ever given Canada so high a position in the eyes of Europe, as the Exhibition she made of her various products in 1851 and 1855. Till then regarded by the mass of Europeans as a distant semi-barbarous dependency of Britain, with a rigorous climate and a barren soil, where nought but savages and outcasts could live, and nought but furs and timber could be procured. She showed on these occasions how great her resources were, and, to the astonishment of those who knew her best, took a position which vied with that of old, wealthy and mighty nations. Just at a time when our railway system is in a great measure completed, when our seaports are crowded beyond all previous example with ships seeking cargoes of our products; when the mines of Lower Canada are just being opened up, and there is special need that the attention of capitalists should be directed towards the splendid opening here for investment in mining adventures, when the *clat* of the visit of the Heir Apparent is still fresh in the minds of the people of Britain, to put in an apparent admission that we have already culminated and are beginning to decay, that we cannot do as well now as we did ten years ago, is to submit to humiliation, to lose ground, and accept defeat in the contest for industrial rank.

The neglect to appoint a Commission will have this further evil effect, that according to the sixth rule or decision of the Royal Commission, no private parties in any foreign country or colony will be allowed to exhibit, nor will the Commissioners hold communications with any such persons except through Commissioners appointed by their governments. It will therefore be impossible, it is feared, for individual enterprise in any way to remedy this neglect of the government. It is hoped, therefore, that a Commission may yet be appointed to act on behalf of individual contributors who may be desirous of exhibiting specimens of the mineral and other riches of the country. Even if this obstacle did not exist, the Board could not, owing to the scanty funds placed at its disposal, undertake the work.

The following petition was addressed to the Governor General early in September.

To His Excellency the Right Honourable EDMUND WALKER HEAD, Baronet, K. C. B., Governor General of British North America.

The Petition of the Board of Agriculture for Lower Canada, the Board of Agri-

culture for Upper Canada, the Board of Arts and Manufactures for Upper Canada, and the Board of Arts and Manufactures for Lower Canada.

RESPECTFULLY SHEWETH:—

That during the last Session of the Provincial Parliament, Your Petitioners severally addressed your Excellency and the other branches of Parliament, praying that Commissioners might be appointed with the necessary powers to secure the proper representation of the industrial resources of the Province in the Great Exhibition to be held in London, under the authority of a Royal Commission, in the year 1862, and that the necessary funds should be placed at the disposal of such Commissioners for that purpose.

That the prayer of Your Petitioners was not then granted. Yet so heartily convinced are Your Petitioners of the desirability of securing such a representation of Canada on that occasion, and of the almost unanimous desire of the people of this Province that the necessary steps should be taken to that end, that they venture again humbly to approach Your Excellency and solicit executive action in that behalf.

That, as the result of the position taken by Canada in the Great Exhibitions held in London in 1851, and in Paris in 1855, a knowledge of the vastness of the resources of this country has been spread throughout Europe, and large investments of capital have been made here tending to the rapid development of those resources. That this is evidenced alike by the high credit which the Provincial securities have always since enjoyed, by the vast sums embarked in our railways, and by the multiplication of agencies for the loaning to Canadians of transatlantic capital for the improvement of real estate. It has also been evidenced by the establishment in this country of foreign consulates, and the development of its foreign trade, as well as by the efforts made (in France more especially,) through these consulates, further to develop and extend our commercial relations with other states. It is also evidenced by the success of recent postal conventions with foreign countries, which previously to 1851, would not have conceived of Canada as a country with sufficient resources to establish and maintain separate transatlantic postal communications.

That since the year 1855 new and important discoveries of mineral wealth have

been made—the rich copper ores of Lower Canada, and the mineral oils of Upper Canada being specially noteworthy—new and important branches of industry have arisen, and it is fitting that these should be brought under the attention of European capitalists and men of enterprize with due prominence.

That a new Census of the Province has just been taken, and some of its more prominent results ought to be compiled and laid before the European public; and this can in no way be so effectively done as through the agency of a commission appointed to represent Canada, in this third Great International Industrial Congress.

That all important foreign countries—even the United States, not adequately represented on previous occasions, and now suffering the ordeal of civil war—have announced their intention of competing on this occasion, and have appointed commissioners. All other British Colonies, (including the Acadian Provinces before unrepresented) almost without exception have done likewise; and therefor for Canada to absent herself, were to make a confession that she has, as compared with her sister colonies, retrograded or remained stationary, which must prove prejudicial to her interests. Intending emigrants cannot fail to be influenced in a greater or less degree by the position which the several colonies take in these exhibitions, though not possibly to the extent originally anticipated; and nothing can be of greater importance to Canada, than a healthy immigration to her untilled fields and her unworked mines.

That by the 6th rule or order of the Royal Commission, no person desiring to send articles to the Exhibition can do so, or communicate with that commission except through commissioners appointed as the organ of communication by the government of his own country, and a barrier is thus placed in the way of individual efforts to exhibit Canadian products. Besides, such individual efforts must fail to produce the desired effect, which a more complete and united representation of the country's resources would do.

That it is necessary that steps should be immediately taken to secure space in the exhibition building, since the Royal Commissioners have advertized that the allotment will be made in a few weeks hence.

That it is also highly important, if possible, that the Commissioners should be enabled to take advantage of the approaching Provincial Exhibition at London, to

secure the best articles there exhibited for transmission to London.

That if a Commission were forthwith appointed and space secured, it might, through the instrumentality of the Geological Survey, and the Agricultural Societies, and by an appeal to individuals to exert themselves in this behalf, secure a large representation of the products of the soil and mines, almost for the mere cost of transport.

That if Your Excellency were advised to lay before Parliament, should it meet before or during the month of February next, a moderate estimate for the expenses of the Commission, preparations would be made by individual contributors, and articles made for submission for selection to the Commissioners in March, to be shipped during that month to Britain.

That the cost to the Province of its part in the Paris Exhibition in 1855, was, as Your Petitioners are informed, altogether \$60,000.

That many expenses were then incurred which might now be unnecessary, the voyage being shorter, and one transshipment being avoided. Your Petitioners are convinced that out of a similar or perhaps a less grant, the half might be returned to the Provincial Treasury on this occasion, if due economy were exercised in its management.

Wherefore Your Petitioners humbly pray that Your Excellency will be pleased to appoint a Commission invested with the necessary powers to secure the representation of the industrial products and resources of the Province in the Exhibition to be held in London during the next year, and with such assurances with respect to the grant to be recommended to Parliament as Your Excellency may be advised it is possible to make.

And Your Petitioners as in duty bound will ever pray.

Through this petition a commission was granted by the Governor in Council, and the following gentlemen have been appointed commissioners to the International Exhibition of 1862. ●

Sir W. LOGAN, Geological Survey; HON. L. V. SICOTTE, President of the Board of Agriculture for Lower Canada; COL. THOMPSON, President of the Board of Agriculture for Upper Canada; THE PRESIDENT of the Board of Arts and Manufactures for Upper Canada; B. CHAMBERLIN, Secretary of the Board of Arts and Manu-

factures for Lower Canada; J. C. TACHE, Member of the Board of Agriculture for Lower Canada.

It will be seen that the Governor General in Council, has appointed a commission to secure for Canadians proper space for representation at the great London Exhibition for 1862. This is as it should be; and the Lower Canada Board of Agriculture may well take credit to itself for the exertions it has made, and the success with which they have been crowned. The *London Times* says £8,000 is to be devoted by our Government toward the expenses of property representing this great colony. Though we have no official information that such is the case, we believe that none will be given; and it is not a farthing too much to expend for such a purpose. Let our agriculturists and mechanics be on the *qui vive*, for there is no time to be lost. The President of our Board, the Hon. Mr. Sicotte, is at the head of the commission. In his hands we predict for Canada a glorious success.

The following is the classification of the articles exhibited such as adopted by Her Majesty's Royal Commission.

Every article produced or obtained by human industry, whether of Raw Materials, Machinery, Manufactures or Fine Arts, will be admitted to the Exhibition, with the exception of:

1. Living animals and plants.
2. Fresh vegetable and animal substances, liable to spoil by keeping.
3. Detonating or dangerous substances.

Spirits, or alcohols, oils, acids, corrosive salts, and substances of a highly inflammable nature, will not be admitted, unless sent in well secured glass vessels.

The articles exhibited will be divided into the following classes:—

SECTION 1.

- | | |
|-------|--|
| CLASS | 1. Mining, Quarrying, Metallurgy, and Mineral Products. |
| " | 2. Chemical Substances and Products, and Pharmaceutical Processes. |
| " | 3. Substances used for Food, including Wines. |
| " | 4. Animal and Vegetable Substances used in manufactures. |

SECTION 2.

- | | |
|-------|--|
| CLASS | 5. Railway plant, including Locomotive Engines and Carriages. |
| " | 6. Carriages not connected with Rail or Tram Roads. |
| " | 7. Manufacturing Machines and Tools. |
| " | 8. Machinery in general. |
| " | 9. Agricultural and Horticultural Machines and Implements. |
| " | 10. Civil Engineering, Architectural, and Building Contrivances. |
| " | 11. Military Engineering, Armour and Accoutrements, Ordnance and Small Arms. |

- " 12. Naval Architecture, Ship's tackle.
 - " 13. Philosophical Instruments and Processes depending upon their use.
 - " 14. Photographic Apparatus and Photography.
 - " 15. Horological Instruments.
 - " 16. Musical Instruments.
 - " 17. Surgical Instruments and Appliances.
- SECTION 3.
- CLASS 18. Cotton.
 - " 19. Flax and Hemp.
 - " 20. Silk and Velvet.
 - " 21. Woollen and Worsted, including Mixed Fabrics generally.
 - " 22. Carpets.
 - " 23. Woven, Spun, Felted, and Laid Fabrics, when shown as specimens of Printing or Dyeing.
 - " 24. Tapestry, Lace, and Embroidery.
 - " 25. Skins, Fur, Feathers, and Hair.
 - " 26. Leather, including Saddlery and Harness.
 - " 27. Articles of clothing.
 - " 28. Paper, Stationery, Printing, and Bookbinding.
 - " 29. Educational Works and Appliances.
 - " 30. Furniture and Upholstery, including Paper-hangings and Papier-Maché.
 - " 31. Iron, and General Hardware.
 - " 32. Steel and Cutlery.
 - " 33. Works in Precious Metals, and their imitations, and Jewellery.
 - " 34. Glass.
 - " 35. Pottery.
 - " 36. Manufactures not included in previous classes.
- SECTION 4.
- CLASS 37. Architecture.
 - " 38. Paintings in Oil and Water Colour, Drawings.
 - " 39. Sculptures, Models, Die-sinking, and Intaglios.
 - " 40. Etchings and Engravings.

Her Majesty's Commissioners will be prepared to receive all articles which may be sent to them, on or after Wednesday, the 12th of February, and will continue to receive goods until Monday, the 31st March, 1862, inclusive.

Articles of great size or weight, the placing of which will require considerable labour, must be sent before Saturday, the 1st of March, 1862; and manufacturers wishing to exhibit machinery, or other objects, that will require foundations or special constructions, must make a declaration to that effect on their demands for space.

Any exhibitor whose goods can properly be placed together, will be at liberty to arrange such goods in his own way, provided his arrangement is compatible with the general scheme of the Exhibition, and the convenience of other exhibitors.

Where it is desired to exhibit processes of manufacture, a sufficient number of articles, however dissimilar, will be admitted for the purpose of illustrating the process; but they must not exceed the number actually required.

Exhibitors will be required to deliver their goods at the building, and to unpack and arrange them, at their own charge and risk; and

all articles must be delivered with the freight, carriage, portorage, and all charges and dues upon them paid.

Packing cases must be removed at the cost of the exhibitor or his agent, as soon as the goods are examined and deposited in charge of the Commissioners.

Exhibitors will be permitted, subject only to the necessary general regulations, to erect, according to their own taste, all the counters, stands, glass frames, brackets, awnings, hangings, or similar contrivances which they may consider best calculated for the display of their goods.

Exhibitors must be at the charge of insuring their own goods, should they desire this security. Every precaution will be taken to prevent fire, theft, or other losses, and her Majesty's Commissioners will give all the aid in their power for the legal prosecution of any person guilty of robbery or wilful injury in the Exhibition, but they will not be responsible for losses or damage of any kind which may be occasioned by fire or theft, or in any other manner.

Exhibitors may employ assistants to keep in order the articles they exhibit, or to explain them to visitors, after obtaining a written permission from her Majesty's Commissioners; but such assistants will be forbidden to invite visitors to purchase the goods of their employers.

Her Majesty's Commissioners will provide shafting, steam (not exceeding 30 lbs. per inch), and water, at high pressure, for machines in motion.

Intending exhibitors in the United Kingdom, are requested to apply to the Secretary of Her Majesty's Commissioners, at the office, 454 West Strand, London, W.C., for a *Form of Demand for Space*, stating at the same time in which of the four Sections they wish to exhibit.

Foreign and Colonial exhibitors should apply to the Commission, or other Central Authority appointed by the Foreign or Colonial Government as soon as notice has been given of its appointment.

Her Majesty's Commissioners having consulted a Committee as to the organization of the Fine Art Department of the Exhibition, will publish the rules relating thereto at a future date.

By Order,
F. R. SANDFORD,
Secretary.

Office of Her Majesty's Commissioners,
454 West Strand, London, C.W.

DECISIONS OF HER MAJESTY'S COMMISSIONERS ON
POINTS RELATING TO THE EXHIBITION.
MARCH, 1861.

Her Majesty's Commissioners have fixed upon Thursday, the 1st day of May, 1862, for opening the Exhibition.

The Exhibition building will be erected on a site adjoining the gardens of the Royal Horticultural Society, and in the immediate neighbourhood of the grounds occupied in 1851 on the occasion of the first International Exhibition.

The portion of building to be devoted to the

exhibition of Pictures, will be erected in brick, and will occupy the entire front towards Cromwell-road; the portion in which Machinery will be exhibited will extend along Prince-Albert's-road, on the west side of the gardens.

All works of Industry to be exhibited should have been produced since 1850.

Subject to the necessary limitation of space, all persons whether designers, inventors, manufacturers, or producers of articles will be allowed to exhibit; but they must state the character in which they do so.

Her Majesty's Commissioners will commu-

nicate with Foreign and Colonial exhibitors only through the Commission which the Government of each Foreign Country or Colony may appoint for that purpose; and no article will be admitted from any Foreign Country or Colony without the sanction of such Commission.

No rent will be charged to exhibitors.

Prizes, or rewards for merits, in the form of medals, will be given in the Industrial Department of the Exhibition.

Prices may be affixed to the articles exhibited.

PRICES CURRENT.

GRAIN PER BUSHEL.

FOREIGN.	Wheat.	Barley	Oats	Corn.	Rye.	Peas
	60lbs	48lbs	34lbs	56lbs	56lbs	60lbs
New-York	1.11	0.61	0.34	0.50	0.60	0.00
Chicago	0.75	0.00	0.16	0.23	0.26	0.00
Toronto	0.90	0.65	0.30	0.40	0.00	0.42
London	1.65	0.96	0.90	1.00	0.00	1.00
Paris	1.90	0.70	0.69	1.00	0.88	1.40

LOWER CANADA

Montreal	1.00	0.48	0.27	0.46	0.60	0.61
Quebec	0.00	0.00	0.30	0.00	0.00	0.86
Three Rivers	1.10	0.45	0.26	0.90	0.75	0.75
Sorel	1.10	0.50	0.26	0.73	0.00	0.70
Ottawa	1.05	0.60	0.29	0.45	0.55	0.45
St. Hyacinthe	1.20	0.46	0.27	0.76	0.00	0.77
Sherbrooke	0.00	0.00	0.00	0.09	0.66	0.00
St. Jean	1.10	0.46	0.25	0.70	0.00	0.62

FLOUR.—Montreal Market.

Double extra	5.75	Superfine No. 2	4.12
Extra	5.05	Fine	3.30
Fancy	4.72	In bags	112 lbs. 2.40
Superfine No. 1	4.53		

BEAN.—Different Markets.

	qtls.		qtls.
Montreal	0.70	Three Rivers	0.00
Quebec	0.80	Sorel	0.00
Ottawa	0.00	Sherbrooke	0.00
St. Hyacinthe	0.00	Iberville	0.00

BUCK WHEAT.—Different Markets.

	qtls.		qtls.
Montreal	0.55	Sorel	6.55
Quebec	0.00	St. Hyacinthe	0.55
Three Rivers	0.45	Sherbrooke	0.00
Ottawa	0.00	St. Jean	0.50

CANADIAN BEANS.—Different Markets.

Montreal	1.50	Sorel	1.10
Quebec	0.60	Ottawa	1.10
Three Rivers	0.00		

POTATOES.—Different Markets.

Montreal	½ m'ot	0.70	Sorel	½ m'ot	0.64
Quebec	"	0.34	St. Hyacinthe	"	0.40
Trois-Rivieres	"	0.61	Sherbrooke	"	0.00
Ottawa	"	0.60	St. Jean	"	0.40

GREEN CROPS SEEDS.—Different Markets.

Red Clover	per lb.	0.08
Vermont Clover	"	0.15
Dutch or White Clover	"	0.25
Timothy	per bushel	1.75
White Vetches	"	1.00
Black Vetches	"	1.00
Mangold's seed	"	0.25
Carrot's seed	"	0.45
Turnip seed	"	0.45

HAY AND STRAW.—Different Markets.

100 lbs. hay, straw.		100 lbs. hay, straw.			
Montreal	6.00	5.50	St. Hyacinthe	4.00	2.00
Quebec	7.00	6.00	Sorel	0.00	0.00
Three Rivers	5.00	3.00	Ottawa	6.00	4.00

MANURES.—Montreal Market.

Peruvian Guano	100 lbs.	3.80
American Guano	"	2.50
Animal black	"	1.50
Plaster	brl.	1.90

OLL-CAKES.—Montreal Market.

Linsed cake	cwt.	1.80
Linsed cake pulverised	"	2.00

MAPLE SUGAR.—Different Markets.

Quebec	lb.	0.07	Montreal	lb.	0.09
Three Rivers	"	0.07	Sorel	"	0.09

ANIMAL PRODUCTIONS.

MEATS.—Different Markets.

	Beef.		Veal.		Mutton		Pork.	
	lb.	qr.	qr.	qr.	qr.	lb.	lb.	
Montreal	0.09	1.00	0.75	0.10				
Quebec	0.09	0.00	0.00	0.00				
Three Rivers	0.06	0.00	0.55	0.11				
Sorel	0.09	0.45	0.45	0.10				
Ottawa	0.10	0.00	0.00	0.10				
St. Hyacinthe	0.06	0.43	0.00	0.11				
Sherbrooke	0.00	0.00	0.00	0.00				
St. Jean	0.00	0.00	0.00	0.10				

CATTLE.—Different Markets.

	Montreal	Quebec	Three Rivers	Sorel
	Oxen per 100 lbs.	6.00	0.00	5.50
Milch cows	21.00	0.00	18.00	18.00
Calves per head	5.00	0.00	0.00	0.00
Sheep	4.50	0.00	0.00	0.00
Lambs	2.75	0.00	0.00	0.00
Hogs per 100 lbs.	5.00	0.00	7.00	8.00

BUTTER.—Montreal and Quebec Markets.

Fresh butter per lb.	0.20	0.15
Salt butter	0.11½	0.15

CHEESE.—Montreal and Quebec Markets.

Rafiné per lb.	0.15	0.60
American	0.07	1.60

HIDES.—Different Markets.

Montreal	100 lbs.	5.50	Quebec	100 lbs.	6.00
Three Riv's	"	0.00	Sorel	"	0.00

HORSES.—Montreal Market.

Saddle and hack horses	\$120.00
Farm horses	50.00
Old horses	25.00
Horses sold at auction	30.00

WOOLS.—Different Markets.

Montreal	lb.	0.25	Quebec	lb.	0.00
Three Rivers	"	0.00	Sorel	"	0.00

EGGS.—Different Markets.

Montreal	0.14	Ottawa	0.00
Quebec	0.12	Sherbrooke	0.00
Sorel	0.11	St. Hyacinthe	0.00
Three Rivers	0.10	St. Jean	0.00