FACTS AND OBSERVATIONS

RESPECTING

CANADA,

AND

THE UNITED STATES OF AMERICA.

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RESPECTING

CANADA,

AND

THE UNITED STATES OF AMERICA:

Affording a Comparative View

OF THE

INDUCEMENTS TO EMIGRATION

PRESENTED IN THOSE COUNTRIES.

TO WHICH IS ADDED

AN APPENDIX OF PRACTICAL INSTRUCTIONS

TO

EMIGRANT SETTLERS

IN

THE BRITISH COLONIES.

BY CHARLES F. GRECE,

MEMBER OF THE MONTREAL AND QUEBEC AGRICULTURAL SOCIETIES;

AND AUTHOR OF ESSAYS ON HUSBANDRY, ADDRESSED TO THE CANADIAN FARMERS.

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1819.

TO HIS GRACE

CHARLES,

DUKE OF RICHMOND, LENOX, AND D'AUBIGNY,

KNIGHT OF THE MOST HONOURABLE ORDER OF THE GARTER,

CAPTAIN GENERAL, AND GOVERNOR IN CHIEF OF THE CANADAS,

&c. &c. &c.

May it please your Grace,

SIR,

THE unostentatious display of your Grace's Virtues—the justice and humanity of your Administration—and the fostering care and zeal for the welfare of these Provinces, which you have ever manifested since you were first appointed to the high office you now hold, as Captain General and Governor in Chief of the Canadas—are the strongest characteris-

tics of true greatness; and inspire me with confidence to request your acceptance of this little work.

This confidence is increased by the conviction, that your liberal and comprehensive mind will duly appreciate the motives that have led to its publication; nor will your Grace be less disposed to regard with a favourable eye the importance of its details, from the humble and imperfect manner in which they are communicated.

Should this book be honoured by your Grace's perusal, the Author, trusting in the Truth of his Statements, and in the Experience on which those statements are founded, will feel but little anxiety for his fame as a writer. Indeed, the chief honour to which he aspires, as the Author

of this work, is, that he may secure your Grace's approbation, and have the privilege of subscribing himself,

Your Grace's most obedient,

And most devoted humble Servant,

CHARLES F. GRECE.

LONDON, *March* 25, 1819.

PREFACE.

THE facts and observations, which, in this little work, I have ventured to lay before the public, are drawn from the most authentic sources, and result from the best possible data. They originate in my own personal knowledge, and from the most unequivocal information of those who have resided in, or visited those parts of the transatlantic continent which have not been to me the scenes of ocular demonstration. From a perfect conviction, therefore, of the truth and utility of my remarks and experience, I have been induced to draw a comparison between the Canadian Provinces, and the Western States of North America.

ALTHOUGH many persons have written on the Canadas, and also on other parts of North America, the comparative advantages to settlers, in these respective portions of the new world, have not formed any part of their discussion.

THIS consideration prompted me to delineate the prospects and advantages which present themselves to those who may take up a residence in Canada; and I trust, that an acquaintance with the country for sixteen years, part of which time was passed in a trackless forest, will be considered a sufficient qualification for the task I have undertaken. Besides having, since the year 1807, resided in a cleared and very populous part of the country, dedicating great part of my time to experimental agriculture, with a view to improve the erroneous practice of the Canadian farmers.

MY experience thus obtained, enables me to give a correct and circumstantial view of the various agricultural productions of these Provinces, as well as the expenses attending an establish-

ment, either on cleared land, or in the forests. These preliminaries are necessary, in order to judge of the success of an undertaking in either situation.

The great object of my interference with the farmers has been to enable the colonies to support themselves, and render them beneficial to the parent state, by increasing the numerous objects applicable to exportation, and thus to obviate the necessity of importing into Canada various productions of the soil, as well as stock of every description, from the United States of America; a practice very dangerous to the welfare and even security of the colonies, and absolutely destructive of its agricultural interests.

My exertions in this cause, there is reason to hope, have not been without success, and the period I trust, is nearly arrived, when our own farmers, stimulated by the rewards of the Agricultural Societies, established in 1817, will put a stop to the necessity of those supplies, and furnish increased quantities of productions for

exportation, when the West Indies may be furnished from hence. Indeed it is a consideration of vital importance, that the islands should be supplied by British America with articles of her natural, as well as her artificial produce; and so abundant are the resources of those regions, that Great Britain may look to them with confidence for naval supplies, and thus be rendered independent of other countries, for all those articles she may ever stand in need of.

The great influx of native Americans into the Canadas for many years past, may be considered a strong proof, in addition to the other circumstances brought forward in this work, of the great advantages which these colonies possess over their own country for settlers. The population in the townships of Lower Canada is composed of two-thirds Americans. And it may be remarked here, that they are the best people to employ in the woods, being well acquainted with the clearing of new land, and able to make the necessary utensils and implements required in a new settlement.

If the Americans find it advantageous to settle in the Canadas, it would follow, that Englishmen must have greater interest, as they fall into a society with laws and habits similar to their own. Nor have the Germans overlooked these advantages. Many have found an asylum here: Mr. Poser of Quebec, a native of Germany, has formed a considerable settlement with people lately arrived from that country. There are Germans to be found in both the Provinces, who are in easy circumstances, and many of them in affluence.

In this country the sports of the field are free to all, and the game and water fowl invite the sportsman at his leisure hours to healthful amusement. Fishing is not less agreeable to many; the rivers and lakes are stocked with a greater abundance and variety of finer fish than those of Europe. These pursuits not only afford recreation, but they help to recompence the emigrant for many things dear to him, which he left in his native land.

But there are other inducements of much greater importance to his happiness. He sees a prospect before him of providing a comfortable establishment for his children, which hope, in many cases, alas! could not be cherished in European countries.

Some of the writers on Canada, particularly Mr. Lambert, and his copyists, have taken upon themselves to censure the manners of the Canadian women as licentious. One finds difficulty in reprehending with sufficient severity, the injustice of this charge. It is certainly a most gross and unfounded calumny; and I know not how to account for such conduct in the writers alluded to, but by supposing, that it owes its origin to a radical want of decency in the character of those who have had the effrontery to invent and propagate it.

The Canadians, as a people, are very friendly and hospitable to strangers who settle amongst them. They are ever ready to give assistance in

labour or otherwise: the former very frequently without reward.

I SHOULD not do justice to the Americans, who are thickly settled in both the Provinces, were I to omit observing, that they are equally hospitable, and desirous to assist strangers who become their neighbours.

IN the Appendix various details will be found respecting topics connected with the husbandry of Canada, which will afford considerable interest to those whose views are directed to a settlement in that country.

FACTS AND OBSERVATIONS,

&c. &c. &c.

THE present rage for emigration to North America has been the means of eliciting much valuable information relative to that extensive continent. But it has also produced much merely literary speculation, numerous ridiculous blunders, and not a few wilful misrepresentations.

It cannot with propriety be denied, that one of the main inducements to emigration, has its origin in political prejudice and animosity. Restless and dissatisfied at home, and impatient of those restraints which the wisdom of Government has imposed upon the turbulent spirits of

the idle and the disaffected, many persons assume the character of republicans; and, under professions of great zeal for the rights of man, forsake their native country, and retire to the United States.

Besides these theorists in politics, the sanguine speculators in commerce, and the visionary experimentalists in agriculture, all turn their attention to the transatlantic shores of Republican America.

There are other motives, even more equivocal than these, to expatriation. There are not a few of the emigrants who leave Great Britain from having exposed themselves to the justice of its laws.

All these fly to the United States, as to an asylum; but, alas! how miserably have multitudes of emigrants already found themselves disappointed! What bitter regrets have succeeded their brightest hopes and golden dreams! Still, however, the emigration-mania has not been cured. Such plausible and fascinating writers as Mr. Birkbeck tend to keep alive the hazardous, and often fruitlesss desire of emigration. Expe-

rience alone effectually undeceives; but how frequently does it happen that knowledge of this kind comes too late! Seeing, therefore, that nothing but experience can offer an effectual check to self-expatriation; and, moreover, considering it a duty which I owe to the country of my birth, as well as to those distant portions of its dominions which I have adopted, and where I have resided, with my family, many years, I have attempted in this little work, a delineation of the present state of the two Canadas; principally with a view to divert the tide of emigration from the remote tracts, and wilds of the back settlements, and other regions of the United States, to the more hospitable, contiguous, and accessible districts of the Lower and Upper Canadas.

In the performance of this duty, (for a duty I consider it), I have, throughout, studied to preserve the strictest impartiality; and have never ventured an opinion which is not, in my own mind, founded in truth and matter of fact.

The elegancies of style, and the beauties of a graceful diction, can hardly be expected from

the pen of a mere farmer, who has never had any opportunity for literary composition, and who is content to tell a plain story in plain and homely phraseology. But the information which long experience has enabled him to collect, will not be the less acceptable or useful, because it is given in a style and manner which every reader may be able to understand.

As this little work is intended, in some degree, to afford a comparative view of the advantages and disadvantages of emigration to the different regions of the American continent, (I mean of the British provinces of Canada, the Eastern United States, and the new States in the western territory of Republican America), I will, in the first place, just glance at the comparative expense of time and money; and the comparative difficulties and dangers of travelling, by sea and by land, to these respective districts. This view of the subject, however, shall be confined to a comparison between the Canadas and the Illinois State. The emigrant from Great Britain who has resolved to make choice of the Illinois, must, of course, cross the Atlantic ocean. The emigrant

to the Canadas must do the same. This voyage is usually performed in about five or six weeks. Both these emigrants may sail nearly all the way to Quebec or Montreal. The one who is bound for the Illinois must then traverse a country, sometimes, indeed, by inland navigation, but generally in waggons, or on foot, of about two-thirds the distance from the Canadas, as the Canadas are from Great Britain. By the time, therefore, that the Illinois emigrant has arrived at the place of his destination, the Canadian emigrant might be comfortably seated by his own fire-side, resting from the fatigues of his voyage.

The almost insurmountable difficulties which emigrants to the western territories have to encounter, even after they have landed on the American continent, Mr. Cobbett, in a late number of his Register, addressed to what he calls his dear friend, Mr. Morris Birkbeck, has treated in a most severe, but just, strain of sarcasm. On no other subject would I have chosen to quote the authority of such a writer as Mr. Cobbett. The versatility and equivocal nature of his character cannot, however, destroy the foundations

of truth. On this account, therefore, and with this apology for the introduction of such a writer's name, I will venture to transcribe what he has told his friend Mr. Birkbeck on this point. Mr. Cobbett, partly, indeed, quoting Mr. Birkbeck's own confessions, describes the country which must be traversed in order to arrive at the Land of Promise in the Illinois, as "rugged roads," containing "dirty hovels; fire in the woods to sleep by;" "pathless ways through the wildernesses;" with "dangerous crossings of the rivers," &c. In another place Mr. Cobbett says, "If English farmers must emigrate, why "should they encounter *unnecessary* difficulties? "Coming from a country like a garden, why "should they not stop in another, *somewhat re-* "*sembling* that which they have lived in before? "Why should they, at an expense amounting "to a large part of what they possess, travel two "thousand miles, at the hazard of their limbs "and lives, take women and children through "scenes of hardship and distress not easily de- "scribed, and that, too, to live like gipsies at "the end of their journey, for at least a year or

" two?"—Why, indeed? There is no reason under heaven for undertaking such perils, and dangers, and fatigues, that has not its foundation in ignorance, prejudice, or something worse than both.

The delusions of such visionaries as Mr. Morris Birkbeck cannot be too severely reprobated. Next to the crime of downright falsehood, is that of telling, in certain cases, only half the truth. Mr. Birkbeck, though compelled at times to admit a disagreeable fact, has stifled many important truths in the most shameful and culpable manner. Nor has Mr. Fearon, though, without doubt, the most honest and candid writer on this subject that has hitherto appeared, always adhered to the duty of telling the *whole* truth. He has, however, this to be said in his favour—If he has omitted all notice of the Canadas, it has been owing, in all probability, to the nature of his instructions from the thirty-nine English families who sent him out on a kind of voyage of discovery to the *United States*, and their dependencies only. Mr. Fearon's friends wished to forsake the government and laws, as well as the country of Great Britain.

If, however, the emigrant to the Wabash country could, after having encountered the difficulties, and borne the expenses of his journey, find advantages to reward him for his labour which he could not find in the Canadas, through which he must pass, if he would pursue the nearest route*, he would, perhaps, be justified in making choice of those distant and trackless districts. I say, perhaps, for I much question whether any subject of Great Britain can, upon a general principle of reasoning, justify his conduct in deliberately adding to the strength and resources of a rival nation, whilst there are extensive, rich, and fertile territories, belonging to his own country, inviting the hand of cultivation, and claiming the exertions of all those who may be induced to quit the immediate soil that gave them birth, to seek their fortunes in distant regions. Your citizens of the world, I fear, for the most part, are but indifferent members of parti-

* When the canals are made, as projected in the United States, to join the waters of Lake Erie to those of the Ohio, and that of Lake Michigan, to the river Illinois, this route will give every facility and convenience of approaching those territories.

cular communities; and it may be said of the natives and subjects of England generally, if they are not for their country, they are against it. It is impossible to remain neuter when patriotism, or the love of one's country, is the question.

Be all this, however, as it may, I will undertake to prove, that the advantages of emigration to the Canadas greatly surpass those to be found in either the eastern United States, or those of the Ohio territory.

It has already been shown, that the distance, and consequent expense of transport, are not to be compared. Let us now take a view of the respective climates of the two countries. If Canada is too cold, the Illinois is too hot; but I contend, that neither the Lower nor the Upper Province can, with propriety, be deemed countries too cold for British constitutions. Much has been said of the cold atmosphere of these parts; but if the longevity and generally healthful state of the inhabitants may be allowed to furnish any criterion of the salubrity, or otherwise, of the climate, the Canadas are second to no part of this vast continent.

Near Quebec, it must be confessed, the air is

rigorous; but proceeding towards Upper Canada, the climate may be denominated European, similar to that of the provinces on the Rhine. With respect, however, even to Quebec, it is no mean argument for its general salubrity, that the mother country has adopted it for the seat of government; which, most assuredly, would not have been the case, had the winters been as severe as some interested writers have asserted. The grape-vine grows wild in both provinces, and always comes to maturity, a circumstance which does not occur in very rigorous climates: indeed, both the Canadas abound with trees, shrubs, plants, herbs, and beautiful foliage, common to climates which are never deemed otherwise than temperate. Melons come to maturity in the open gardens.

With respect to the Illinois territory, it may be observed, that the climate cannot possibly be either so healthful to an European constitution, or so generally favourable to cultivation. Mr. Birkbeck appears to have laboured as much to withhold, as to convey information; and that not only with respect to the difficulties he had to en-

counter in travelling to the place he fixed upon, but also with respect to the place itself. He has not told us, that the climate of the Wabash country is such as to prevent the most laborious parts of agricultural employments from being performed by Europeans, on account of its heat: he has not told us that the system of slavery must be adopted there, if cultivation be to be carried on to any great extent. There is something very disingenuous in all this. Mr. Birkbeck must have known very well, that the labour of ploughing, harrowing, hoeing, sowing, reaping, housing, &c. could not be well performed by those who have been accustomed to the air and climate of Great Britain.

How great has been the astonishment of many to find, that this same English *Prairie* is indebted to the sweat, the toil, the groans, the heart-breaking pangs of slavery! Indeed, there is good reason to believe, that the western territory will for ever be subject to that species of labour; the heat of the climate being too great for white men's constitutions. In the months of July and August the heat is absolutely intolerable.

Not so with respect to the Canadas. During the summer months, there are times, when the heat is considerable; but it is at no time, what can be fairly called scorching. The rapid progress of vegetation, during those months, is almost beyond credibility. But of this more hereafter.

With these general remarks, as to climate, &c. I shall proceed to a detail of the present state of these fertile provinces.

CANADA is divided into two provinces, the Lower and Upper. The former of these is subdivided into four districts, (viz.) Gaspie, Quebec, Trois Rivieres, and Montreal. It is situated east of the New England States, Vermont, and the State of New York, and forms their limits. Montreal, Quebec, and Trois Rivieres, are the principal market towns. The city of Montreal is situated in 45° 30′ north latitude.

Upper Canada is bounded on the east, by the United States, the great lakes passing between this province and them. It extends in a westerly direction to the Mississipi, through the Lake of the Woods, to the westward. North-west of

the Mississipi, its boundaries are indefinite, the limits of Louisiana, being still undecided, or not very accurately known; but on the north, this province is bounded by the river Ottowa.

This extensive region is watered by numerous fine rivers, some of them, particularly the St. Lawrence, affording a very easy communication with the Atlantic Ocean; an advantage which the Ohio States cannot possibly ever obtain. And this, be it remembered, is an advantage which the Canadas cannot possibly ever lose.

It is hardly necessary to state, that the Canadas are under the British Government. They have been sometimes invidiously termed the English Canada, and the French Canada. This unfair and improper distinction has been recently conferred upon them by a Mr. Sansom, who has published, in New York, a book which he calls SKETCHES OF LOWER CANADA; a work abounding in blunders and mistatements of the most injurious and palpable nature. But it is a sufficient description of this writer to inform my reader, that Mr. Sansom, in more places than one, triumphantly boasts, that sooner or later the

Canadas must belong to the United States; and speaks of it, as a "momentous truth, that, in che- "rishing Upper Canada, Great Britain is but "sowing the seeds of *another* 'Rebellion,' for "*another* Washington to gather."

By the treaty with England, at the conquest in 1759-60, it was stipulated, that the people should retain their own laws, and have the entire freedom of their religious institutions guaranteed to them. It is this circumstance that has induced Mr. Sansom and others, to denominate Lower Canada a French province; and this he has done from no other apparent motive, than to induce a belief in English emigrants, that by removing to that province, they are removing to the company of entire strangers; than which nothing can be more untrue. Both the Canadas possess a constitution similar to that of England; differing, of course, in those points which their situation and peculiar circumstances require. The Canadas are wholly unincumbered by debt; and their civil and religious institutions are not inferior, according to their extent, to those of the mother country. The protestants pay no

tythes; and the catholics but very few, which are paid to their own clergy. Direct taxation is hardly felt, being confined to importations: dry goods paying 2½ *per cent.* rum, from 8d. to 1s. per gallon; brandy, gin, and wines, being productions of foreign states, pay higher duties; so that, as it has been justly observed, "any man "with a moderate some of money, has it in his "power to acquire a handsome competency*."

Upper Canada, it is true, may with greater propriety be termed English; the English language being generally spoken here, which is not the case in the Lower Province. It has been frequently styled the Garden of North America; but both the provinces, as to soil, scenery, commerce, trade, and government, have a great affinity to each other. The principal towns in the Upper Province are Kingston, York, Newark, and Amhurstburgh. York is the capital, it is seated on the Lake Ontario.

It should not, however, be concealed, that no

* See Observations on Emigration, &c. by Robert Holditch, Esq. p. 46.

part of America offers an asylum for indolence. Every where it requires much active industry, much patient perseverance, to form an establishment, particularly in agricultural pursuits, on lands hitherto in a state of nature. With these prerequisites, and a capital of from £400 to £1000, few people in Canada will fail of their object, who have emigrated for the purpose of employing their talents, and their capital, in the acquirement of a decent independence. The fine gentleman and delicate lady I would advise, by all means, to remain in England, or some other part of Europe.

In a journey I made from the Chesapeak to Montreal, I could not avoid observing, that the price of land in the Eastern States is too high; and that much of the soil is very indifferent. Those States, however, lying east of the Allegany mountains, having a direct opening with the western ocean, have a decided advantage over those of the west. But the price of land in the Eastern States, being very little short of what it is in England, most European emigrants are alarmed on their first attempts to settle, and con-

sequently remove to the less expensive, though more remote, districts of the west.

Let us now proceed to take a view of the actual price of land in the Canadas; the expense attending its cultivation; the average produce that the agriculturist may fairly calculate on obtaining from any given quantity; and the means he has of disposing of it afterwards.

In treating of the price of land in Canada, it is proper to state, that the generosity of Government has frequently been extended to settlers in a very great degree. They have been known to give as much as 100 acres of good land, on condition of the occupier's building a house, and clearing at least six acres, with an actual residence of three years, prior to being put in possession of the freehold for ever.

With mingled sentiments of surprise and indignation, I was once compelled to listen to a conversation on board the Duke of Leinster packet, during her passage from Dublin to Liverpool, in which one person, assuming to himself the character of a gentleman, roundly asserted, that government was in the habit of tak-

ing back the land, after a short period, which they had previously granted to settlers. This, I will take upon me to say, was an absolute falsehood. I suspect the man who had the consummate impudence to assert it, was an American land agent, than whom, few men have stronger temptations to misrepresent these matters. I make no apology for any apparent want of politeness towards a man who could have the bare-faced effrontery to bring so false a charge against the British Government. Most certainly no such instance ever occurred, where the settler had himself fulfilled the exact terms of the agreement, as above stated.

The quantity of land in Canada, yet in a state of forest, is capable of containing and supporting some millions of souls. Its quality is equal, if not superior, to any in the eastern States, and its price far below that of the western territory.

Some lands are held by a tenure similar to our English copyholds; but a great part is freehold. Copyhold farms are subject to an annual rent of 1½ bushel of wheat, for every 100 acres, besides four shillings and two pence in money. On the

alienation of lands, 8 *per cent.* is paid by the buyer to the lord of the manor. The tenants are compelled to go to the lord's mill to grind the grain for their own consumption, paying a toll of 1-14th of the grain so ground.

It has already been stated, that the Roman Catholics continue to pay tythes to their own clergy: this amounts, however, but to 1-26th, and that of grain and pulse *only*, every other production being entirely free from tythe: neither are there any assessed nor land taxes exacted from the farmers of the Lower Province.

The freehold land is held by the same tenure as in England.

Farms of 100 acres, with a small log-house, and a barn, thirty acres of the land being previously prepared for cultivation, may be bought for from £150 to £200. In the townships, which are very extensive, and in many parts not more than fifty or eighty miles from the city of Montreal, the great emporium of the Canadas, farms may be bought on the above terms.

Land in a state of nature may be bought for from ten shillings, to two pounds per acre, at a

credit of from five to ten years, paying 6 *per cent.* interest to the owner. This land, to be cleared, and made fit for sowing, will cost about three or four pounds per acre more, in the Lower Province; in the Upper Province, about six pounds per acre: labour not being so plentiful there.

There are, at present, many opportunities of getting farms, at no great distance from Montreal, where is received the produce of the most remote settlements of Upper Canada, as well as that of the rich and fertile district of which it bears the name. Nor is there, at this time, any difficulty in obtaining farms in the district of the Three Rivers, or of that of Quebec; but as the district of Montreal possesses a more congenial climate, lying in a more southerly direction, I would, by all means, recommend emigration to those parts*.

In Upper Canada, plenty of land may be had at from two to four dollars per acre, in a state of

* A pretty correct idea of the topography of this district, may be obtained by an inspection of Mr. Vondenvelden's Map. —Faden, Charing Cross, London.

nature, and, with some clearing, for a moderate consideration.

From what I have here briefly stated, I trust an adequate idea of the value of land in Canada may be collected. The next thing is to consider the average expense attending its cultivation. This will include a view of many articles of expenditure, not solely agricultural, but which necessarily, in a partial manner, enter into all calculations of this nature. The usual price of labour on farms, is from one shilling and eight pence, to two shillings and six pence per day, with board: if without board, four shillings and two pence. An annual farming servant, besides board and lodging, has from £15 to £24 wages *per annum*; and a woman servant of all work, from £6 to £12 *per annum*.

In my Essays on Practical Husbandry, addressed to the Canadian farmers, and published at Montreal, in the year 1817, I have given a table of the outlays, when commencing on a farm of 100 arpents*, rented at about 15s. the arpent, in the vicinity of Montreal, or at a distance of

* That is four-fifths, of an English statute acre.

fifteen or twenty miles from that city, at 7s. 6d. per arpent*. As the work, in all probability, has not hitherto had much circulation in Europe, I may be permitted to transcribe that estimate into this little publication:

	£.	s.	d.
Two Plough Horses at 20l. each	40	0	0
An ordinary extra Horse	10	0	0
Twelve Cows, at 6l. each	72	0	0
Ten Sheep, at 1l. each	10	0	0
Two Sows, at 2l. 10s. each	5	0	0
Twenty-four fowls, at 2s. each	2	8	0
A light Plough, a Roller, Horse Hoe, a Scarifier, Axes, and various small implements	20	0	0
Two Dung Carts, two Hay Carts, two pair of Wheels to serve the four bodies, and two Trains for winter	29	0	0
A Two-horse Plough	6	6	7
Harness for ditto	6	0	0
Harrows	2	10	0
A Cart Harness for extra horse	3	10	0
Carried over.	£206	14	7

* It is a custom to let farms, in both provinces, by the halves, the landlord furnishing implements, seeds, and stock; the tenant giving half the produce of the earth and stock.

Brought up	£206	14	7
Saddles and Breech for Plough Horses, when put to cart	5	0	0
Three Halters and Stable Furniture	2	0	0
Furniture for Dairy Dishes, Pails, Churn, &c.	10	0	0
Fifteen Minots* of Seed Wheat, at 10s. per mt. ..	7	10	0
Ditto ..... of Pease, at 10s. per mt.	7	10	0
Ditto ..... of Barley, at 7s. 6d. per mt.	5	12	6
Grass Seed for ten arpents	3	7	6
Potatoes for five arpents, at 3s. per mt.	9	0	0
Seed, Corn, or Horse beans, and seeds of Vegetables	2	10	0
SERVANTS' AND LABOURERS' WAGES.			
Ploughman	24	0	0
Two ordinary Men, at 15l. each	30	0	0
A Servant Woman, at 12l.	12	0	0
A Girl, at 6l.	6	0	0
Four Men, from the 15th of July to the 15th of September, at 3l. per month	24	0	0
Women and Children to plant and gather Root Crops	6	0	0
Provisions	124	0	0
Total	485	4	7

These calculations are made for entering on a farm on the first day of May, when the stock may

* A minot contains thirty-six quarts, Winchester measure.

be expected to feed abroad. Were the entry to take place in November, an allowance must be made for the subsistence of the stock. The food for the servants is included for one year; but the expense of the furniture for the house and vehicles, the maintenance of the master and his family, are not included: that depending on the style he may choose to conform to.

This estimate may serve well enough to answer every inquiry bearing on the same subject: but it were of small service to the reader, to inform him of the price of land, and the general expenses which must be incurred in its cultivation, without giving some clear and distinct view of the probable returns which land, so purchased, and so cultivated, will make to the skilful and industrious agriculturist. In stating, therefore, the extent of those returns, and the prices which they respectively obtain in the market, we shall answer the double purpose of conveying information to agriculturists in general, and to the consumers of agricultural produce in particular.

In the Essays on Practical Husbandry, already

quoted, I have endeavoured to lay down the most efficient methods of going to work, in order to make the best possible use of the land in Canada. To those details, therefore, it will be sufficient to refer in this place, as belonging, more properly, to a distinct work on agriculture, than to one professedly devoted to such topographical and descriptive delineations, as are necessary for the information of emigrants to these provinces. I may, however, here state the general results of the observations I have made in the little work alluded to. We will begin, therefore, with SPRING WHEAT, which requires, generally, about a minot and a half of seed for every arpent. The return being, of course, according to the preparations of the soil, from twelve to twenty-five minots per arpent.

SPELT, or EGYPTIAN WHEAT, produces nearly the same returns from a somewhat larger quantity of seed; but it has the advantage of being better suited to a poor light soil.

BUCK WHEAT requires about two gallons and one quart of seed for every arpent, and returns from fifteen to twenty minots per arpent.

Rye requires one minot and a half of seed for an arpent of land; and, in general, returns about from fifteen to twenty-five minots.

Barley, of the best sort, requires one minot and a half of seed per arpent; and returns from fifteen to thirty-two minots.

Oats take two minots of seed per arpent, and on swamps newly cleared and drained, will return forty minots per arpent; but on clay and light loams, the returns do not exceed from twelve to eighteen minots.

Maize, or Indian Corn, requires one gallon of seed per arpent, and, when properly tilled, will return from thirty to fifty minots.

Horse Beans, when sown in drills, which is preferable to any other, require one minot of seed per arpent; and return from twenty-five to thirty-five minots per arpent.

Pease are very precarious in their crops in Canada. The small pea requires one minot and a half per arpent; but the large kind, a peck more. The returns seldom exceed twenty minots, and frequently but from ten to twelve per arpent.

There are a few other seeds which might be mentioned, but the above are sufficient for the present purpose.

Of the CULTIVATED GRASSES I shall mention but a few. The red clover and fox-tail, the latter of which is usually called Timothy-grass, in Canada, from the name of the person who first introduced it, are applicable to various soils, and are the only grasses that are sowed for crops. The white honey-suckle clover is an indigenous grass, as is also the sheep fescue, and the hop or yellow clover. The same may be observed of the great meadow grasses; the silver grass, the cyprus or blue-joint, and some few others. The Dutch gold-top is very common.

The quantity of FOXTAIL or TIMOTHY seed is one peck, and two pounds of red clover per arpent; but if a field be to be sown with red clover, in order to take a crop and plough in the second growth for a manure, eight pounds of seed will be required. One arpent of land will produce from one hundred to two hundred and fifty bundles, weighing fifteen pounds each.

LUCERN, which is an artificial grass, requires a

quart of seed, when drilled, per arpent; and two quarts when sown broad cast. It is a productive and valuable grass, one arpent of lucern being deemed equal to four arpents of those grasses now under culture. Lucern is cut four or five times during the summer: sainfoin but once.

One gallon of SAINFOIN seed may be sown for every arpent. It is tolerably productive, and will grow on very poor soil.

I shall now make a few observations on the culture and produce of vegetables, as food for stock, &c.

Turnips, if sown broadcast, will require half a pound of seed per arpent; if in drills, at three feet apart, four ounces of seed will be enough for an arpent. The returns are from four hundred to seven hundred bushels per acre.

The ROOTA-BAGA, or SWEDISH-TURNIP, requires nearly the same seed, and is equally productive; but are deemed more nutritive.

CABBAGE for the food of cattle, of which the drum-head is most esteemed, is very productive. An arpent of land will contain 3600 cabbages, at three feet distance. The average

weight in an year unfavourable to their growth, (viz. in the year 1816), was ten pounds each, making the produce eighteen tons. Though food for cattle, they are also cultivated in the Canadian gardens.

POTATOES, of which there are several kinds, are uncommonly fine in Canada. The large white potato is deemed the most productive. The cuttings from twelve minots of potatoes will plant one arpent of land, which will produce two hundred and twenty minots on an average of seven years.

CARROTS require three quarters of a pound of seed per arpent, when drilled; and when broadcast, twice that quantity. The returns will be from six to seven hundred and fifty minots per arpent. I have had carrots that measured thirteen inches round.

PARSNIPS, though not equally advantageous to the farmer as carrots, succeed well in Canada. I have had parsnips that have measured fifteen inches round, and weighed three pounds and six ounces, without the top. The quantity of seed

per arpent is one pound, the returns from six to eight hundred minots.

As a summary of these facts, we may observe, that the returns of crops are as follow: wheat, from 25 to 30 bushels; buck wheat, from 15 to 20; rye, 15 to 25; barley, 15 to 30; oats, 32 to 40; indian corn, from 30 to 50; horse beans, from 25 to 35; potatoes, from 250 to 400; carrots and parsnips, from 700 to 900; turnips, from 300 to 700 bushels; cabbages, from 18 to 25 tons per acre; and hay, from $1\frac{1}{2}$ to $2\frac{1}{2}$ tons per acre.

It is evident, therefore, that the earth, when well managed, is very productive; and the climate, during the summer months, being very warm, the rapid advance of vegetation is almost incredible. I have sown wheat on the 11th of May, harvested it in the month of August following, the produce weighing 65 lbs. per minot.

There are many facilities of improving the land, natural to the country. Lime-stone is abundant, and various other kinds of manure are easily to be obtained.

As soon as the snow is off the ground in the spring, and it is dry enough to harrow, the following seeds are committed to the earth: wheat, horse-beans, pease, barley, carrots, and parsnips. The general practice of the farmers is to prepare the soil in autumn; but the season for agricultural pursuits somewhat vary: at Quebec, the season is six months; at Montreal, seven. Although the season appears short, and the cold intense, the winters* are more pleasant and salubrious than those of England, because more uniform, and the air more clear and dry. In Canada, the farmer is never at a loss, from any apprehension of the fickleness of the weather, what kind of labour he should next pursue. Hence, there is but little occasion for the barometer in farm houses, so common in England.

Canada is favoured with respect to the price of wheat and flower by the famous Corn Bill. By one of the provisions in that much misrepre-

* After the frost sets in, and the rivers are sufficiently hard for travelling, the farmers make their distant markets; and pursue their pastimes.

sented bill, it is enacted, that wheat from the Canadas may be imported into England, when her own is seventy shillings a quarter; while wheat from other countries is not permitted until English wheat is as high as eighty shillings. This is a wise and politic measure; and shews the paternal care which the British government has ever exercised towards the Canadian provinces.

Connected with this part of my subject, I may mention the manner in which the Canadians usually clear the land.

The new land is covered with timber. The greater part of the trees being from two to three feet in diameter. The larger the timber, the better the soil, therefore the choice of land is directed by the growth of timber on it. Where beech, maple, hickory, butter-nut, and chesnut grow, it is a sure sign of a good soil; it is either yellow or hazel loam. Where elm, white ash, white oak, butter-nut, and red oak grow, the soil is strong. Where white pine, hemlock pine, birch and spruce grow, the soil is sandy. Cedar swamps, though often composed of good soil, are

not desirable, unless easy to drain. Black ash, soft maple, or plane swamps, are mostly on a clay or marl; if easy to drain, they make very lasting meadows. Where there are small poplar and small white birch, the soil is poor, being light loam, on white clay. A spot being chosen for a settlement, a place is selected near to a constant and certain supply of good water, to build a log-house; trees are cut about 18 inches in diameter, to build it; if a saw mill be near, where boards may be had to cover it, that is done; if not, the bark of ash becomes a substitute for boards. It is not desirable to lay out money at first to build a fine house, because, when the land becomes unincumbered from trees, it often happens, that a more advantageous spot is discovered to build upon. Large cellars are made under the house for the deposit of vegetables, and other articles susceptible of injury from frost. Log stables and a barn ought to be erected, and care taken to make them shelter the cattle from the north and north-west winds, which are the coldest in that country. The clearing can be done by the acre. As Europeans are not acquainted with this spe-

cies of labour, it would be much best, in the first instance, to let it out by the job to the woodsmen, who are very expert in clearing. It requires some time and experience to become acquainted with the method of clearing new land. The work is begun by cutting the small trees or undergrowth, then the large ones are chopped about three feet from the ground. The method is to cut them on the side they lean to, which is always observed before they begin the work. The incision is continued until it passes two thirds of the tree; then on the opposite part, when it falls. Many of these trees are from fifty to eighty feet without a branch. When on the ground, the branches are cut off, and thrown in heaps; then the body of the tree is cut into lengths of twelve feet. Thus the work is continued over the piece under operation. When done, an immense heap of trunks and branches is scattered all over the land. It lies in that state for a month or two, and when dry enough to burn, fire is put to it, and people attend to throw the branches and small wood into the fire, that it may all be burnt. The fire having passed over every part of

the land, it is a favourable sign for the future expectation of the farmer, as it kills all the under growth. The trunks of the trees being thick, are not all consumed, and oxen* are employed to draw them to a place, where they are piled up and burnt by themselves. The ashes are collected, and converted into pot or pearl ash, or sold to the manufacturers of these articles. If any of the logs are fit to make fences of, they are selected for that purpose; if not, other wood is got to fence the field, to secure it from the inroads of cattle. In a few days the earth will be in a state to receive the grain, which is harrowed in, with a triangular harrow, among the stumps of the fallen trees, which remain in the ground for fifteen or twenty years, before they decay, according to the species of the timber.—But although they appear to be, and are, impediments to the plough, they are not of much consequence to people who are acquainted with the

* American oxen are used for the purpose; there are two breeds, one resembling the Devonshire, the other the Lincolnshire: the former are sold for £15 the pair, the latter for £25.

American hog, or, as some call it, the Dutch plough, which implement performs very well on lands incumbered with stumps or stones. This plough is used in all new settlements. The best practice is to lay the land down to grass with the first sowing, which grass will last six or seven years.

The culture of Indian corn is managed with a hand-hoe, by earthing up the plants as they grow. The potato crops are managed as follow:—Four or five sets are laid on the ground, about four feet distant from each other, the earth is then drawn over them, forming a heap about the size of a bushel measure. Nothing farther is done to them, until they are ready to take up in the Autumn, which is performed with the American hand hoe. The highways are kept up by each farmer, as far as his premises extend, that being the only statute duty the farmers are subject to.

The scarcity of hands, and high price of labour, have hitherto prevented the farmers from getting the trees up by the roots, nor does it appear that it can be done to advantage for many years to come, except on spots intended for gardens or orchards.

The latter improvement is but too much neglected in the new countries.

The soils most congenial for orchards are light loams or gravel. Apple trees thrive very much on rocky or lime-stone land.

A great variety of apple, pear, peach, plum, cherry, grape-vines, and other fruit trees, may be had at the different nursery-gardens at Montreal. The apples from thence are considered superior to any other. The peach trees are introduced into the orchards from York to Amhurstburgh.

Cherries, chesnuts, walnuts, hickory, hazel, and filbert nuts, grow wild; as do gooseberries, strawberries, raspberries, blue berries, cranberries, and black currants.

Some people adopt a mode of getting a crop off new land thinly timbered, by what is called girdling; that is, cutting an incision round the trees about six inches wide, which causes them to die; but this method is dangerous, because, when there are high winds, the branches break off, and fall on the people and cattle. The roots

of trees run horizontally near the surface, and are often thrown down by the wind, for which reason every tree is cut, to avoid accident. Were any to be left, they would be injured or destroyed by the fire, when the land is burnt.

The American landscape, therefore, appears naked and destitute to the European traveller; but this is unavoidable, it being almost impossible to prevent a general destruction of the timber when the fire passes.

A deficiency in point of taste in some farmers, and a want of pecuniary means in others, lead many to adopt, as ornaments in landscape, an orchard, a crop of corn, or a meadow. But they might easily produce considerable ornaments on their estates by forest trees, so laid out as at once to delight the eye, and afford shade for their cattle during the summer months.

These agricultural details will, I trust, be of considerable service to those who intend to emigrate to the Canadas as farmers; and it is to such I wish more particularly to address myself in this publication. They will not, however, be

complete, without some information of a still more minute and particular nature.

The prices of provisions at Quebec and Montreal are nearly alike. Beef is from 4d. to 6d. per lb. Mutton, 6d. to 7½d. veal, 5s. to 12s. per quarter; pork, 6d. per lb. turkeys, 5s. each; geese, do. ducks, 2s. 6d. fowls, from 10d. to 1s. 3d. eggs, from 8d. to 1s. 6. per dozen. Fresh and salt fish are to be had at a proportionate rate. Butter, from 1s. to 1s. 8d. per lb. cheese, from 5d. to 10d. per lb. potatoes, from 1s. to 1s. 8d. per bushel; wheat, from 5s. to 7s. 6d. per bushel; barley, from 2s. 6d. to 4s. 2d. rye, from 4s. to 5s. buck wheat, from 3s. to 4s. 2d. Indian corn, from 4s. to 5s. oats, from 1s. 8d. to 2s. 6d. horse beans, from 5s. to 10s. pease, from 3s. 4d. to 5s. French beans, from 8s. to 12s. per bushel; hay, 3s. 6d. per hundred pounds weight. The price of horses is from £15 to £25; a yoke of oxen, from 15 to £25; cows, from £5 to £10 each. These prices are Halifax currency, being 18s. sterling per £.

Such, generally, is an accurate view of the agricultural produce of this interesting country,

and of the returns which the land is capable of yielding.

The Canadians export masts, yards, spars, square oak, and staves; white and red pine timber, red cedar, lath wood and plank, pot and pearl ashes, wheat, flour, Indian corn, pease, beans, barley, flax seed, hops, apples, onions, beef, pork, butter, cheese, &c.

These articles of produce naturally lead to an inquiry into the facilities which the Canadas possess of disposing of them; and of the comparative advantages of markets between these provinces and the much extolled territories of the new State of Illinois.

The ports for shipping are Montreal and Quebec; but previous to any observations on the superior advantages which these ports hold out to the exportation of the produce of the Canadas, it may not be improper to give some account of the present state of those flourishing towns.

MONTREAL is one of the most enterprising, commercial, and thriving cities in all North America. Its population is about 25,000 souls; and if the present rage for emigration should

continue but a few years, the number of inhabitants will be doubled.

It may help to convey a good idea to the reader, of the population and importance of this city, to be informed, that at this time there are no fewer than six different newspapers published there every week. These papers, it should be observed, are not, like many of the London and other journals, chiefly devoted to a correspondence of a local, or controversial nature, with the editors, but have their columns almost entirely filled with advertisements, and are printed on a large sized paper, similar to the Times, Morning Chronicle, and other London papers*.

There are two banks recently established in

* I have taken the first paper that came to my hand, "The Montreal Herald," for October 24, 1818, and have counted the number of advertisements, which amount to 156. Those who are acquainted with these matters will know, that this bespeaks a very extensive and busy town; especially when it is considered that this is only one of six newspapers published in that city. The average number of advertisements in the Times newspaper, London, is, I am told, about 230 or 240, perhaps double the number of any other paper.

Montreal, with very large capitals, and where considerable business is transacted, in the deposit and exchange of money. There are also two fire insurance offices. The churches, and other public buildings, are on an extensive scale. In short, this city is superior to many of the large commercial towns of Great Britain.

QUEBEC is the seat of government, and is distant from Montreal about 180 miles. This also is a very populous and thriving city; but it is not necessary to the main object of this work to enter into any minute details of description. It is sufficient to shew, that Canada possesses every advantage of a long established and settled country, and where the enterprising and industrious agriculturist, merchant, tradesman, and mechanic, may meet with almost every encouragement and reward that is to be found in the busy and populous towns of Europe; besides many other advantages peculiar to these transatlantic regions.

The Upper Province is supplied at Montreal with European commodities of almost every kind; and persons proceeding thither, may furnish

themselves with dry goods groceries, liquors, ironmongery, saddlery, and every thing else, as conveniently, and nearly as cheap, as in Europe. The roads in the neighbourhood, and between the cities and towns, are good, and the conveyance, both by land, by steam boats, and other vessels, easy and rapid.

The country of both the provinces is generally populous and fertile; and on the numerous navigable rivers are several valuable mill seats. The noble river St. Lawrence passes upwards of 400 miles through the Lower Province. There are several towns and villages on its banks. Indeed the houses are set so thick, that it appears like a continued street on each side of the majestic stream. Its banks are perhaps unequalled for grandeur of scenery, and its borders for fertility of soil.

The tributary waters to this fine river are inland seas, where ships of the largest dimensions are seen traversing their expansive surfaces; sometimes for the purposes of trade, and at others, when necessity requires it, to check the inroads of an intruding enemy.

I cannot let this opportunity escape me, without entering my solemn protest against the misrepresentations of Mr. Sansom, with respect to the banks of the St. Lawrence. He asserts that there are only four hamlets or trading towns, including Montreal and Quebec, situated on that river; and draws a most exaggerated comparison between the banks of the St. Lawrence, and those of the North River, in the territories of the United States. On the latter, he says, there are no less than fifteen or twenty hamlets and market towns, in the same space, where, on the St. Lawrence, there are only four. I here tax Mr. Sansom with gross misrepresentation; and challenge him to a comparison of the Canadian towns, and those of the United States. Whoever has been in North America must know very well, that many of the *cities* of the Union do not contain more than a score or two of houses; and that their towns, with comparatively but few exceptions, hardly deserve the name of hamlets.

As to what Mr. Sansom says of the borders of the St. Lawrence being "a region of perennial snow," if, which I very much doubt, he has ever

been there at all, he must know, is unfounded; to use a Lilliputian expression, Mr. Sansom has said the thing that is not. I will not apply a harsher term to his statement.

The markets of Canada are accessible to ships of the largest burden, which sail to Great Britain, the West Indies, and Newfoundland, with as free a trade to Spain and Portugal.

Besides the St. Lawrence, and other navigable rivers, there are several great lakes, on which are conveyed the produce of the land to populous and trading towns, in much less time, and at infinitely less expense than by the Ohio, which is 1000 miles, added to the Mississipi; or even by this latter river alone, which runs a distance of 1245 miles from Shawnee town, before it arrives at the great market, or depôt, for the produce of the Illinois territory, which is New Orleans.

It were, however, uncandid in me not to state, that the facility of moving heavy goods, such as flower, lumber, beef, pork, butter, &c. by shipping, is impracticable from the month of De-

cember to the close of April. But when the tide of emigration is more generally directed to Canada, there will be a sufficient demand for the productions of the earth, to induce merchants to adopt the system of keeping their merchandise in depôts, during the summer months, in Bermuda, and it is not, generally, a voyage of more than sixteen days from the St. Lawrence to that island. During the winter months, the same ships would be profitably employed in the trade from Bermuda to the West Indies.

It must be admitted, that by using Bermuda as a depôt for Canadian produce, the merchant must necessarily incur a considerable expense in warehousing, unloading, &c. But the same expense is incident to those who trade from the Ohio States, by the Mississipi, and deposit their goods at New Orleans.

Every agriculturist or merchant knows, that the grand object to be considered in the sale of his merchandise, is the nearness and facility of markets. It is of little avail that I can grow wheat at an expense of three or four shillings per bu-

shel, if it shall cost me double that sum, to say nothing of the loss of time, in conveying it to market.

Now, let us compare the Canadas, and the western territory of North America, in this very particular point, for it is one of vital importance.

With respect to what may be called home consumption, every attempt at comparison were absolutely ridiculous. Where there is no population, there can be no demand for the earth's produce. The articles sold on a single market-day at Quebec or Montreal, would supply the whole population fifty miles round Mr. Birkbeck's English *Prairie* for years!

I have already intimated, that the value of land, the facilities of cultivation, and the returns which it makes in Canada, are in every respect superior to what can be obtained in the western territory. When to these primary advantages is added that of a nearer market, the inducements to emigrate to Canada appear in a most flattering and conspicuous point of view.

I have stated Bermuda to be the depôt for Ca-

nadian produce, and New Orleans for that of the western states of the Union.

Ships laden in the ports of Montreal, or Quebec, proceed down the St. Lawrence, and in a day or two's time enter the Atlantic Ocean, and proceed, in almost a direct line, southward to Bermuda, unimpeded by adverse winds, and without encountering the long and perilous route by the gulphs of Mexico and Florida. This voyage is usually made in about sixteen days; whereas, those from the states west of the Allegany mountains, have, in the first instance, to make the dangerous and tedious descent of the Ohio and Mississipi; thence, from the entrance of the latter river, after having taken in their cargo at New Orleans, they pass the gulph of Mexico, and then that of Florida, up to the latitude of the variable winds; then, standing to the eastward, in order to descend to the south, and so fall in with the trade winds, that they may reach the West India Islands. Added to a knowledge of the trade winds, a very slight inspection of any common map or chart of these parts, will immediately demonstrate the superiority of Canada in

this respect. Vessels from the Ohio and Mississipi to New Orleans, cannot make their voyage, ordinarily, in less than 28 days: nor return under from 90 to 130 days. Ships cannot sail from New Orleans to the West Indies in less than from 30 to 36 days*.

The waters of some of the great rivers of the United States falling into the lakes, pass into the St. Lawrence; a circumstance which has caused that river to become the natural route for the produce of those countries above St. Regis; and, therefore, a great portion of the people inhabiting those parts look to Montreal for a market. In order to turn that trade into the state of New York, the legislature has determined to form a canal from the lake Erie, to the Hudson, or North river. The length of this canal is to be 353

* "Should you, as you think, come round by New Orleans, "Shawnee town is still your landing-place. Your voyage up "from New Orleans by steam, will be about a month. From "Shawnee town to English Prairie is fifty miles. You must "inquire here for the road."—*Birkbeck's Letters from the Illinois, p.* 79.

miles, a great part of which is already cut. At present, the trade to those countries is carried on by waggons from Philadelphia*.

The expense, however, of a canal navigation, of the distance even to Albany, is very great, when compared to a route by the St. Lawrence, to which canals are about to be made in different quarters. The whole distance will not then exceed sixty miles, avoiding the rapids of La Chine, those of the Longue Sault on the St. Lawrence, and the great falls of Niagara.

Produce of every kind can be brought to Montreal, or Quebec, for two-thirds less than by the New York State canal.

These advantages have excited the cupidity of the United States, and induced them to covet the possession of the Canadas; but the British Government would act wisely to use every precau-

* That the reader may be put in possession of every possible information on this important subject, I have inserted in the Appendix, No. I. a statement from a United States' paper, giving a long account of this canal; to which I have added some remarks thereon, from the Montreal Herald.

tion to retain these valuable colonies under the English crown. With Canada, would fall the trade in provisions to the West India islands.—Besides, the capabilities of Canada in regard to naval stores should ever be held of great value to the mother country.

Emigrants intending to proceed to Upper Canada, take their departure from Montreal* to La Chine, a distance of nine miles. From thence they go to Prescot in boats, 111 miles. From thence there is a steam-boat to Kingston, where there are other steam-boats proceeding to York, the capital and seat of government for the Upper Province. After landing passengers, the boat proceeds to Queenstown, on the Niagara

* As ships from Europe do not proceed higher up the St. Lawrence than Montreal, those desirous of having goods sent from England to Upper Canada, should have them shipped in vessels bound to that port, and appoint an agent there to receive and forward them to the place of destination.

Ships are to be heard of at the New York, Lloyd's, and New England Coffee-houses in London; and at all the out-ports in the United Kingdom.

frontier. Between Queenstown and lake Erie there is a portage* of eighteen miles. The total expense from Montreal is generally considered to amount to about five pounds each person.

Those who proceed farther, take carriage past the portage, to avoid the Niagara falls, and embark in vessels on lake Erie for Amhurstburgh on the Detroit river. Few people, however, proceed that distance, except for curiosity: they generally concentrate themselves near market-towns, where labourers are plentiful, and artificers are to be found to perform the different kinds of work that may be required. There are, nevertheless, many extensive settlements in the Erie country.

Those persons who wish to proceed to the Ottowa river, will find a packet boat at La Chine, which leaves that place every Sunday morning, from May to November, for St. Andrew's and Carillion, being the foot of the rapids on that

* A portage is that part of a river which is not navigable, on account of rocks, &c. producing rapids. And where goods must therefore be *carried* to the next navigable part.

river, extending about nine miles. A steamboat is expected to ply between the head of these rapids, and the river Rideau the present summer, to carry goods and passengers to the Perth and Richmond settlements, where, during the summer of 1818, a road was made to communicate with the Ottowa. Another road has been made through the townships of Chatham, Grenville, the seigniory of the Petit Nation, the townships of Norfolk, Templeton, and Hull, forming a regular communication by land from the above settlement to Montreal and Kingston, in Upper Canada.

The Perth and Richmond settlements on the rivers falling into the Ottowa, have been the favourite spots of many thousands of families, who have settled there; and it is to be hoped, that many who have been misled by false expectations, and delusive misrepresentations, to wander in search of a place of settlement, into remote and devious tracts of land, far removed from human society, and the means of turning their exertions and skill to any valuable purpose, will be induced to retrace their steps, and to take up their abodes

in the fruitful and hospitable districts of these colonies. Many persons who went to the States of America have already acted upon advice similar to this, and are now actually reaping those advantages of which they had before only dreamt.

Since the late war, American settlers from the United States have not been very favourably received by the Canadians of the Upper Province. Their most abominable treachery and perfidy during those commotions necessarily engendered no small portion of distrust, and even dislike, which time only, and a better conduct on the part of the Americans, can effectually cure. But however this may be, the most desirable emigrants, and the most welcome to the Canadians, are those from Great Britain. These, whether in the several capacities of farmers, tradesmen, shopkeepers, labourers, or mechanics, need not despair of meeting with encouragement in these provinces. Blacksmiths, besides board, receive 5s. wages per day; masons, bricklayers, plaisterers, carpenters, wheelwrights, and shoemakers, generally board themselves, and receive 10s. wages per day.

Those who go out with a view to get work as labourers will do well to leave England in April, as they will thereby arrive at a time when work is plentiful. If they leave Europe in July or August, they will arrive too late to obtain a permanent situation for the winter. In that case they will act prudently to take money sufficient to supply them for some months. Those whose object it is to enter into agricultural pursuits arrive, of course, too late to enable them to obtain a crop the first year. They must therefore come provided for such a delay.

Many persons who go out from England, find themselves disappointed from a want of previous adequate investigation of the difficulties they must naturally encounter in such an undertaking; and they increase those difficulties greatly by not making an early decision, but hesitating and halting, till delay has consumed a great part of that property which was requisite to their comfortable establishment on their arrival. Others are disheartened at the commencement of their new undertaking, because they have not made themselves previously acquainted with the busi-

ness which they are to subsist by, on their arrival on these shores. Persons should not emigrate to America for the purpose of learning how to become farmers, unless they can, in the very first instance, command a sufficient capital to maintain them, and those whom they may find it necessary to call to their aid, till they have acquired that knowledge, and realized the substantial fruits of it. This must necessarily be a work of considerable time.

It has already been stated, that Government has, sometimes, been led to hold out considerable inducements to settlers, in grants of lands, &c. How far this practice is continued at present, may be known by an application to the office of his Majesty's Secretary of State for the Colonies in London, to whom, if I might be permitted, I would recommend that orders should be issued to the provincial government, to prevent unnecessary delays to the emigrant; but that, immediately on his application for unappropriated lands, they may be granted according to his own selection; and, besides, that the 1-7th part of a township, now reserved for the future pro-

vision and maintenance of a protestant clergy, and the like reservation for the benefit of the crown, be differently arranged, as the present mode of distribution is found to be productive of great inconvenience to the settlers.

With regard to these suggestions, most respectfully recommended to the Secretary for Colonies, it may be sufficient to call to the recollection of persons in office, that delay and suspense consume the limited resources in cash which every emigrant must possess; and that when once persons have formed a resolution to leave their country, and have made up their minds as to the place of their destination, the least delay, arising from any appearance of neglect in those who have raised expectations of assistance in so momentous an enterprise, has a tendency to excite suspicion, fear, and distrust. A whole year may be very unthinkingly lost under such circumstances, because the labours of the farmer must depend on the season. Many, in consequence of delays of this kind, have been tempted to emigrate to the United States, who might otherwise have been induced to settle in our own colonies.

As to what I have ventured to suggest respecting the present practice of reserving 1-7th for the clergy, &c. it may be observed, that such crown and clergy reserves, as they are now distributed, are an obstruction to the repairs of roads, are the means of collecting humidity, and a great interruption to the drainage of the settled parts of a township; besides that they increase the settler's fences, and eventually tend to overshadow his crops.

Pursuing this subject with respect to emigrants to Canada, I may remark, that as some impositions have taken place by captains engaging to carry persons to Canada, and afterwards leaving them in New Brunswick or Halifax, 750 miles below Quebec, great care should be previously taken to ascertain that the ship is actually bound to Quebec or Montreal. There is an agency-office at Quebec to furnish people with whatever proper information they may stand in need of on their arrival at that port, if destined for Montreal, or for the Upper Province. They will find steam-boats that ply every day between the two cities. The distance, 180 miles, is usually

performed in about eighteen hours; the passage in the best cabin, with provisions, is £3 10s.; in the mid-cabin, £1; in the fore-cabin, ten shillings; but no provisions are provided except for cabin passengers.

As every article of real utility, and even of luxury, can be easily procured in the Canadian cities, and that, too, at nearly as easy a rate as in London, emigrants need not expend their cash in goods for sale; but preserve as much specie as possible. The emigrant may, however, provide himself with such articles of clothing as are suitable to the climate: viz. coarse Yorkshire cloth trowsers, and round jacket, a long great coat, striped cotton shirts, and worsted stockings, with boots, or high shoes. For the summer dress he may provide Russia-duck trowsers, and smock-frock. He may also take out bed and bedding. Kitchen furniture* may or may not be taken out; he might, however, include a few rough carpenters' tools. Axes, chains, hoes,

* Kitchen utensils should all be of cast iron, as wood fires destroy those made of tin.

and ploughs for new land, are made in Canada, better adapted to the work than can be had in any part of Europe.

Although an agreement may be made with the captain to be furnished with provisions for the voyage, it will not be amiss to take out a small store of extra articles; especially when there are women and children on board: as a plum pudding or two, baked very dry, some rusks, currant jelly, gingerbread, butter, cheese, brandy or Hollands, porter, tea, and sugar. Wine is not required, as it turns acid on the stomachs of those not accustomed to the sea. These are merely hints to those who have never taken a voyage of this extent, and as captains of vessels do not always inquire very minutely into the state of their passengers' appetites.

The passage from Great Britain to Canada in the Spring season is generally from five to six weeks; and in the summer from eight to ten.

The usual retail prices, (Halifax currency), of grocery and liquors, in Canada, are as follow:— Tea from 4s. to 5s. 6d. per lb. coffee 1s. 3d. loaf-sugar 1s. West-India sugar from 7d. to 9d.

maple sugar, produced in the country, from 4½d. to 6d. per lb. Rum 4s. 6d. per gallon, Hollands gin from 7s. to 8s. brandy from 10s. to 13s. wine the same. Madeira 16s. per gallon, Teneriffe from 6s. to 9s. Spanish from 4s. to 5s. 6d. Vinegar 5s. per gallon, and porter 1s. 8d.

Salt is sold in Canada at from 2s. 3d. to 2s. 6d. per bushel, tobacco and snuff from 1s. to 1s. 3d. per lb. candles 1s. soap 8d. or 9d. but these two last articles are made in most of the families.

I shall conclude these details with the mention of a few seeds, &c. which emigrants from Europe may find it useful to take out with them: Lucern, sainfoin, onions, beet, leek, parsley, and sage; Swedish-turnip, blue and white field turnip, drum-head cabbage, early York, carrots, mangle-wurtzel, raddish, lettuce, gooseberry, and different currant seeds.

Having now furnished the reader with every useful information relative to his settlement in Canada, I would ask any English farmer whether he could reasonably expect a greater or more profitable return for the expense, the skill, and the industry he would bestow upon the same

quantity of land in his own country. It were, however, an imputation on the judgment of any experienced agriculturist to urge an answer to so obvious a question.

And now let us pursue our comparison of these and other advantages of the Canadas, with those which are so pompously held out to settlers in the western territories of the United States.

The difference as to distance, and the consequent expense of travelling, by sea and by land, have already been sufficiently noticed; as also have the relative situations of the respective markets from the abodes of the growers in Canada, and in the Ohio States; by which it has been shewn, that in a much less time than a boat can pass between the Ohio country to the Orleans depôt, and return, might a ship make a voyage from Quebec to Europe or the West-Indies, and return again to the Canadian port.

Let us suppose, however, that an emigrant has surmounted the perilous and expensive voyage from Europe to the western territory; on his arrival there what a host of difficulties, expenses, and inconveniences, has he got to combat.

Perhaps, with a delicate wife and a family of children, he finds himself seated under a tree, in the midst of a wild and trackless region, where not a single human face, besides those of his own retinue, can be seen; not a hut or a cabin, can he behold; and the alluring stories he had been told about luxuriant natural meadows, called *Prairies,* waiting only for the hand of the mower, and a day's sun to be converted into food for his horses and cattle, turn out to have been lavished upon wide open fields of grass, towering as high as the first floor window of the comfortable house he has forsaken in Europe; and penetrating, with its tough fibrous roots into the earth, beyond the reach of the ploughshare, requiring the operation of fire ere the land can be converted to any useful purpose.

Under a burning sun, and with but little shelter from the foliage of trees, or the retreats of the forest, he has to dig wells ere he can quench his thirst, there being no cooling and refreshing springs! and although he may still hope, that time will enable him to surmount all his diffi-

culties, and reconcile his complaining, perhaps, upbraiding family, to their isolated condition, his heart will be apt to sicken within him, especially when he finds, that he must wander many miles in search of some one to assist him in the very commencement of his operations. At length, however, that assistance is procured; but of what species of beings does it consist?—Alas! alas! they are those very unfortunate wretches, whose degraded condition, he has, while in Europe, learnt most humanely to commiserate. For the relief of beings like these, perhaps he remembers the time when he would not taste a grain of sugar, nor drink a drop of rum; for these he has attended many and many a meeting of the friends of humanity; for these he has listened with rapture and delight, to the powerful arguments of a Wilberforce in Parliament; and for these he has dwelt, with the most anxious solicitude, on the pages of a Clarkson. How often has he execrated the horrid traffic in human blood! How has his heart swelled with indignation, when he has read the terrific details of slavery, and has then taught his children, almost to love and venerate

the poor black beggar that, in broken accents, has solicited charity at his door!

Yet now, in these blissful plains—in these lands of liberty and of patriots—in republican America, the asylum of the persecuted—the nurse of freedom—the abode of plenty—"the "shadow of a great rock in a weary land" to those who have fled from the persecutions, the taxations, the misery, and the impending ruin of Europe—In this transatlantic *elysium*, is our poor deceived emigrant surrounded with slaves, or lost in desolation!

This is no exaggerated picture. In passing through many of the States to those west of the Allegany mountains, the emigrant literally travels through a land of slavery, unless he travel through Canada.

An American author of no mean talent, in a work recently published, on the present state and resources of that country, has candidly admitted the degraded condition of many parts of America in this respect, and has treated with no small degree of just sarcasm and severity, the visionary projects of such emigrants as Mr. Birkbeck.

Mr. Bristed, to whose work, intituled, "America and her Resources," I have here alluded, admits, that the female population of the southern and *western* states are materially injured by the existence of the slave system.

"In selling slaves," says he, "our southern planters and dealers pay no regard to parting nearest relations, to separating parents and children, or tearing asunder husbands and wives. Virginia prides herself on the comparative mildness with which its slaves are treated; and yet, in the first volume of the *American Museum*, there is a heart-rending account of a slave, being, for some offence, put into an iron-cage, suspended to the branches of a lofty tree, and left to perish by famine and thirst, unless the birds of prey, to admit which, the bars of the cage stood at intervals sufficiently wide, could terminate his life sooner by plunging their beaks and talons into his vitals. In the mean time, the eagle, the vulture, and the raven, feasted upon the quivering victim, whose body they mangled at their own leisure; and the high-spirited republicans of the ancient domi nion, were gratified by knowing,

that the air was tainted by the putrefaction, and loaded with the expiring cries and groans of an agonized fellow-man, doomed to die by protracted torture."

Again:—"There are regular dealers, who buy up slaves, and drive them in gangs, chained together, and more than half naked, to a southern market. Few weeks pass, without some of these wretched creatures being marched through Richmond on their southward course. A few months since, nearly two hundred were sold by auction in the street, and filled all the region round, with their cries, shrieks, and lamentations."

This same writer admits, that the *western* States participate in the *morals*, manners, and character of those sections of the Union, by which they are peopled: namely, the *southern* and middle States. What then has the emigrant to those States to expect on the score of society? Hear Mr. Bristed, and Mr. Birkbeck:—"The settlers in the new country are generally needy adventurers, and exposed to difficulties, which, in addition to *unhealthy* situations, shorten life."

The public land intended for sale, is laid out

in the government surveys in quarter sections of 160 acres each, or one-fourth of a square mile*. The whole is set up at auction, and what remains unsold, may be bought at the district land-office, at two dollars an acre; one fourth to be paid down, and the rest in instalments, to be completed in five years. The emigrant having paid his eighty dollars for his quarter section, is often left pennyless, and repairs to his purchase in a waggon, containing his wife and children, a few blankets, a skillet, a rifle, and an axe. After erecting a little log hut, he clears, with intense labour, a plot of ground for Indian corn, as his next year's subsistence, depending in the meantime on his gun for food. In pursuit of game, he must often, after his day's work, wade through the evening dews up to the waste, in long grass or bushes, and, returning, lie on a bear's skin, spread on the damp ground, exposed to every blast through the open sides, and to every shower through the open roof, of his dwelling, which is

* Mr. Birkbeck is not a little disappointed, that Congress has refused to sell him any more land for the English settlers intending to join him.

never attempted to be closed until the approach of winter, and often not then. Under such extreme toil and exposure, many of the settlers speedily perish.

Sometimes he has to carry his grain fifty miles to a mill, to be ground, and wait there some days, till his turn comes.

Land cleared, commands from twenty to thirty dollars per acre; and thus, in the course of the last fifteen years, a tract of country, four times as large as the British Isles, has been *decupled* in value*.

Such is the picture drawn by no unfriendly hands, of the condition of those who emigrate to Republican America; and this picture of misery, from the same authorities, might be greatly enlarged. But can any thing of all this be said of Canada? Most assuredly not. Let us, however, pursue the contrast.

On referring to Mr. Fearon's publication, a statement of taxes in the United States is given,

* See Bristed, Birkbeck, and Fearon, *passim*.

by which it appears, that those free people are exposed to many heavy and grievous imposts: viz, a poll tax of 10s. per head, city tax, poor rates*, county tax, state tax, stamp duty, dog tax, land tax, tax on carriages, duty on auctions, on sugar, licences to sell spirituous liquors, duty on wines, on spirits, foreign and domestic; and very heavy duties on the imports of many necessary articles, which cannot be dispensed with by the greater part of the population.

Mr. Fearon describes the climate of the Western States as very unhealthy, being subject to various kinds of febrile diseases.

Venomous reptiles are found in these States, though not in Canada; nor are the Canadians disturbed by that worst kind of venomous reptile, so common in the States of the Union, a

* "In this country," says Mr. Bristed, "we have unfortunately adopted the English poor-law system; which, so far as it yet operates, is a canker-worm, gnawing at the heart's core of our national morals, prosperity, and strength."—*America and her Resources, p.* 421.

rancorous spirit of party. It is true, a feeble attempt has recently been made to introduce among us the *spirit of reform;* which is only another phrase for a spirit of anarchy and misery. In Canada every person of fair character is eligible to a seat in the House of Representatives. But I will not pursue a subject that would lead to a discussion foreign to the direct object of this publication.

Land, twenty-five miles on either side of the town of Cincinnati, to a hundred miles north of it, with some small improvements, sells for from 8 to 20 dollars per acre. In the Tennassee country, land, in a state of nature, sells for 38 dollars per acre. Labour is stated to be very high, and the produce very low on the Ohio. The wages of a labouring man is from £58 to £65 per annum. A woman servant, £31 : 10s.

It is not necessary to continue these comparative details, in order to shew, that Canada holds out advantages of a very superior kind to emigrants; and that an Englishman, by removing to that part of America, will not only be per-

forming his duty as a good subject, but may add to his own comforts and enjoyments in a very great degree.

It has occurred to me, that my little work will not be complete—perfect it cannot be—without some further details relative to the steps which emigrants ought to take on their landing in Canada.

Ships on their arrival at Quebec, are detained a day or two to make their entries at the Custom-house: it will therefore be unnecessary to take out baggage, and incur expense at an inn for lodgings, while inquiries are made on any business in that city. The ships moor along side the quay, so that families can step ashore to walk through the town, and buy any thing they want. If disposed to go to an inn, there are two very respectable ones in the lower town: viz. the Exchange Coffee-house, and the Neptune Inn. There are also genteel boarding-houses in the lower town. In the upper town there are others still more respectable; but they will all be found dear; therefore refreshments may be had easier and cheaper, by

taking them on board, from the market or shops. As two days will give time to decide on the future destinations of emigrants, I shall first suppose a family determined to go to the eastern townships in the district of Quebec.—Perhaps it would not be amiss to buy a horse and cart, to carry the family and baggage from the city to those parts. When ready, they go to the steam ferry-boat, which plies every half hour between Quebec and Point Levy. They proceed from thence to St. Giles, where they fall on the Craig's road, leading through many fine townships, to Standstead, on the lake Memphramagog, where the line runs between the Province and the United States. It would not be amiss for emigrants to carry provisions with them.

Another family we will suppose determines to go to the eastern district of Trois Rivieres.—In that case, a passage is taken on board the steam-boats going up the river to the city of that name. These boats have from 160 to 180 feet deck, and may be said to be floating hotels, not surpassed by any in the world. When arrived,

debarkation must be made instantly, they being, like English stage coaches, bound to time. The family, if prepared to proceed, can do it immediately: if desirous to halt a day or two, they will find good inns in this city. On their departure, they should take the ferry to the opposite shore. If their views are to the borders of the Becancour river, on their landing, they descend about six miles, where it empties itself into the St. Lawrence, where the road runs up to the townships in its neighbourhood.

If to the river Nicolet, they proceed up to the village bearing that name, about 12 miles, where it empties into lake St. Peter. At that place, they will get every information to proceed to the townships between the St. Lawrence and the lines to the east. There are also roads from Nicolet leading to the new settlement of Drummond Ville, on the river St. François, as also to the river Yamasca. But a choice can be made of another road to Drummond Ville, by proceeding on with the steam-boat to the town of William Henry, that being the most frequented.

Another family prefers perhaps the district of Montreal.—These should keep on with the steamboat proceeding to that city. They may then go to the inn kept by Pomroy, opposite the old market, or to the General Brock, or to Cushing's near the Hay-market, or to a boarding-house. If a stay is contemplated, a small house or lodging in some of the suburbs perhaps would be best.

It is determined, we will suppose, to settle on land in this district.—It will be asked, therefore, where are spots to be found for settlers? I answer, On the rivers Chataugua, the Ottowa, and Assumption. On the seigniories of Argentueil*, Vaudreuil*, Regaud*, Soulange*, Beauharnoise* Longuiel*, Chambly*, Yamasca*, D'Aillebout*, Ramzay, La Chenaye*, Terrebonne, and River du Chene*. Townships of Hemingford, Goodmanchester, Kildair, and Chatham, besides many others; but these may suffice.

* Seigniories marked thus, have English and American families in them.

I should advise no one to buy land, unless he has been on the spot; and to take care that the titles are good.

Each settler will require some stock; but let him take care to purchase no more than he has the means of supporting. The best places to supply his wants are the market towns. The market days are Tuesdays, Thursdays, and Fridays, when stock of every kind may be bought cheaper than in the country.

Those emigrants who settle in new countries, where stock is scarce, and stock farms being their object, it might be deserving of attention for them to go to the cities on market days, and buy calves, which are brought to market in great numbers. They may be bought at a price of from £1 : 5s. to £2 each, at the age of three to five weeks, which would be an easy method of increasing those establishments, there being no other means so practicable, on account of the great demand occasioned by the influx of settlers.

Mr. Hedge makes the best American axes, log chains, Dutch plough shares, brush scythes,

rings and staples for ox yokes. At Mr. Platt's is to be found every article of iron hollow ware, from a small saucepan to the largest potash kettles; as well as every article of ironmongery and window glass. At Mr. Thomas Torrance's are to be had groceries, liquors, &c. At Mr. James Woolrich's is to be found every article in the linen, woollen, and haberdashery line. These stores are all in St. Paul's Street, Montreal, near to the old market and port of landing.

Some families determine to proceed to the Upper Province, carts are therefore hired on the old market to take the baggage to Lachin, where live Mr. Grant and Mr. Boston, each having boats to hire, with men to proceed to the Upper Country. If to Prescott, with a view to go to the east part of the Perth Settlement, the engagement is made to the landing place; from whence it is forty miles by land, and carts are hired for the journey. If to Kingston, an opportunity is always afforded by the merchants sending goods there, and the agreement is made accordingly. As there is a steam-boat which plies between Pres-

cott and Kingston, people will determine how far they will take the boat from Lachin. The proprietors always find provisions for the men. They tow the boat up the rapids on the Longue Sault, and encamp at night on shore. The passengers sleep at inns or at farm houses near the water side. They make the voyage in about six days, depending on the wind. When at Kingston, directions have been already given for the purpose; but let travellers recollect to take biscuit and provisions on this route, as they may not always fall in with them. It has already been observed, that there is a packet, which departs every Sunday morning, for Carillion on the Ottowa, and St. Andrew's on the North river, on the seigniory of Argentueil. This route up the Ottowa leads to the north part of the Perth Settlement, and also to that of Richmond. Those going to the latter parts, perhaps would do best to engage boats to take them to the landing-places connected with these settlements, provided the steam boat is not in operation.

I will now conclude these imperfect sketches,

by the following questions, which I submit, with great deference, to the consideration of the British Government: as they involve points of very considerable importance, to the commercial interests of both countries.

1. Is it consonant with the provisions of the British Statute 55. George III. Cap. 26. that wheat and flour, being the growth of a foreign state, and as such, liable to the prohibiting duty in England, should, by descending the River St. Lawrence, be put into British ships, and entered in Britain at a lower duty, which they would not be entitled to, unless they were deemed to be British growth?

2. Is it not an infringement of the Statute 52. George III. Cap. 117. that timber, staves, and other productions of a like nature, the growth of a foreign nation, should, by the same species of fallacious shipment, entirely escape the duty originally imposed to protect the produce of the British Colonies?

3. Ought not productions of the United States, passing through the Canadas, to be entered there as foreign produce for exportation?

These questions, however trifling they may appear at first sight, and however simply they may be stated, are of vital importance to the Canadian provinces, and the British revenue in general; and I trust they will be received as they are meant; and that they will be listened to by those whom they interest, with the attention their importance demands.

APPENDIX.

No. I.

American Report respecting the New York Grand Canal, intended to divert the commerce of the Upper Lakes into that State.

Onondaiga, Sept. 8 1818.

THE canal commenced by the State of New York, is to extend from Lake Erie to the tide waters of the Hudson. The distance, in a direct line, exceeds 300 miles; on the route pursued it will be about 353 miles. It is to be 40 feet wide at the surface of the water, and 28 at the bottom. The water is to be 4 feet deep. The whole space to be divided into a number of levels, each carried as far as the face of the country will admit, and connected with the next succeeding level by one or more locks. The locks are to be 90 feet long, and 12 feet wide. Boats, properly constructed, carrying 100 tons, may then pass the locks and each other on the canal. There is to be a tow path on one

side of the canal for one or more horses to draw the boats. The usual rates of loaded boats about two miles and a half per hour; passage boats sometimes go as fast as four miles per hour. As each section of the canal between any two locks will be level, there will be no current in the water, except so much as to supply lockage water for the next descending canals.

The body of the canal is to be excavated in the earth; but when streams of water or gullies intervene, which cannot be passed on the surface of the earth, without bending the canal too far out of its course to go round their heads, the earth must be raised, by embankments, to the proper level, of sufficient width for the canal to pass on them, with their sides of such a slope as to prevent their sliding or caving off. Through these embankments must be made culverts or passages for the water from the upper side under the canal, to prevent its ponding there, and endangering the embankment. When the streams are large, aqueduct bridges will be necessary.

We will now proceed to examine the route surveyed for the canal. It commences in the Buffalo Creek, on the level of Lake Erie, from whence it passes along the banks of the Niagara river fifteen

miles, to the Tonawanta Creek. Here, a dam across the creek, four feet high, raising the water to the level of Lake Erie, would also produce a level surface of water in the creek for eleven miles up its channel, which, with a tow path on one side, would be the canal for that distance. Here it leaves the Tonawanta, and, turning to the north, crosses the ridge which forms the Niagara falls. This is passed by a deep cutting of about 25 feet. Here the canal falls, by eight locks, 65 feet, to the level of the Genessee river. On this level it continues to that river, where a dam of 10 feet will raise the river to its level, and the boats on the canal may pass across without an aqueduct.

About three or four miles east of Genessee river, after passing about seventy miles on one level, the canal falls 49 feet, by 6 locks. It then proceeds on one level about sixteen miles, to the valley of Mud Creek, down which it descends by successive locks, till it falls into the Seneca river, opposite Montezuma. On the east of the Seneca it again rises, by 3 locks, and passes the summit in Camillus, Onondaiga county, where it again descends, by 1 lock, to the level of the plain south of Salina. Here it again rises, by 3 locks, to the Rome level, on which it passes about sixty miles to Utica. Below this, it follows the

valley of the Mohawk, keeping between the river and the hill, locking down, as the face of land requires, to the Hudson river.

Lake Erie is 56435 feet higher than the Hudson river at Albany, and 142½ feet higher than the long level between Salina and Utica.

The fall from Buffalo to Seneca river is 194 feet, with 25 locks; the rise from thence to the summit to Camillus is 27 feet, with four locks; the fall to the Salina plain is 10 feet, with 1 lock; rise to the Rome level, 28 feet, with 3 locks; fall to Schoharie, and which level may be carried above the hill to Albany, 12985 feet, with 15 locks; fall to the level of the river, 28550 feet, with 30 locks; total rise and fall, 67510 feet; 78 locks.

Should the canal end in a bason on the hill west of Albany, and be connected with the river, by an inclined plane, as is common in Europe, where a great descent occurs in a short distance, the total rise and fall would be reduced to 391 feet, and the locks to 48.

The distance from Buffalo to Seneca river, is 163 miles 2½ chains. The Seneca river to Utica, the part now in rapid course of execution, is about 93 miles. From thence to Albany, 97 miles 27 chains; making the whole 353 miles 97½ chains.

Remarks on the New York Canal, in reply to the preceding Report: taken from the Montreal Herald.

IN our paper of to-day will be found a statement of the proceedings of the Americans respecting their great Western Canal. The object of this undertaking is avowedly for the purpose of diverting the internal trade from the St. Lawrence to the Hudson; and thereby injuring the Canadas. The magnitude of the work, a national object, deserves its just share of merit, and as it is not in our power to prevent its accomplishment, it becomes our duty to guard against the injury it may be productive of—a duty which is doubly imperious upon us, when by doing so, we shall produce a direct, and much wanted benefit to ourselves. How far the grand canal, when finished, may prove detrimental to the St. Lawrence trade, is a question which we are at present unable to determine: difference of opinion upon the subject exists among our most intelligent commercial men; and we are informed that some of the merchants in the States do not entertain so sanguine hopes of its effects in this way, as the principal projectors would wish. For the information of such as turn their thoughts to this subject, we subjoin the following statements, taking

the rate of freight on the Canal as mentioned in the last report. The Grand Canal, when finished, will extend a distance of 353 miles, and is estimated to cost 4,881,738 dollars: or, £1,220,431 : 10s. currency, an average 13,400 dollars, or £3,450 currency per mile. The length of a Canal requisite to make the navigation from Fort Erie to Montreal, equal to that of the Western Canal, when finished, is only 18 miles: and if we allow that every mile of this canal can be completed at the same rate as that in the States, the whole sum it would require would be only £62,100. As to the time necessary for finishing either undertaking, it must depend upon the strength and energy employed; but if ten years are required to make the Grand Western Canal, with the aid of 2000 men and 500 horses, it is obvious, the same power would complete the canal by the St. Lawrence in seven months, or one season.

In taking a comparative view of the two routes, with the eye of an engineer, the preference will be given to the St. Lawrence Canal for facility of completion. In all those places where locks or gates are required, there are abundance of materials for building on the spot. The nature of the soil is such, that *puddling*, one of the most expensive processes in canal making, would not be required; and as to

the expense of excavating, from the shortness of the distance, it cannot be a serious obstacle in accomplishing so important an object.

From every information on this subject, collected from the most authentic sources, it is obvious, the route from Lake Erie to Montreal, by the St. Lawrence, can be put on a par with that to the Hudson by the Western Canal, for one-twentieth part of the expense; and the benefits resulting to Canada, from an improvement of the St. Lawrence navigation, would be sooner felt, and proportionally greater, than that resulting to the States from the Western Canal, as the influence of the former would be confined within a less space, than that of the latter.

With regard to the expense of transportation when both these are finished, the St. Lawrence would decidedly have the superiority. The projector of the Grand Western Canal stated, that a ton of produce, by it, could be transported from Lake Erie to the Hudson for 8 dol. 58 cents. (£2:2:7¼), of which sum they allowed 5 dol. (£1:5s.) for tolls. But as we cannot suppose a canal of 18 miles long will pay the same tolls as one of 353, a very great saving will occur here. The expense of tolls by the St. Lawrence would not in all probability amount to 1½ dol. or 7s. 6d. per ton. So that the Lake Erie farmer

could bring his produce to the Montreal market for 17s. 6d. per ton less than he could carry it to the Hudson. Another circumstance which would preponderate in favour of the St. Lawrence, is the less expense of power. By the Western Canal, the boats for a very great portion of the route must be dragged with horses; whereas, on the St. Laurence, the greater part of the distance from Montreal to Fort Erie could be navigated by steam boats; and steam is found to be more than sixty per cent. cheaper than horses, where fuel can be found at a moderate price. This would also operate to a very considerable degree, in the length of time requisite for the two routes. A loaded boat, by the Western Canal, it is said, will proceed at the rate of 2½ miles per hour; and if she goes for 12 hours every day, it will require nearly twelve days to come from Lake Erie to the Hudson.

In the present state of the St. Lawrence navigation, produce shipped at Fort Erie, will reach Montreal in seven days; and as a considerable part of this time is spent at the portages, when these are removed, we shall be able to travel the same distance in a much shorter space of time.

From all this, it is perfectly obvious, that the St. Lawrence route to Lake Erie may be made far superior to that by the Grand Western Canal, both for

cheapness and dispatch. And when we reflect, that this superiority may be obtained at so small a cost, we sincerely hope some active measures will be adopted for its accomplishment. We ought also to bear in mind, that benefits similar to those which have resulted from canal navigation in other countries, will be heaped upon the Canadas, by this undertaking; and where *nature* has done so much, we trust we shall not long have to regret, that no *art* has been employed to aid her munificence.

No. II.

Selections from the Essays on Canadian Husbandry, by the Author of this Work.

THE great public benefit arising from a knowledge of the state of the crops, is too evident to require comment; and in order to imitate the practice of the British counties, the conductors of the Montreal Herald suggested to me the idea of giving monthly reports of the state of the crops in the district of Montreal. I readily entered into their views, and furnished them from June 1816, to November 1818.—Perhaps they may not be deemed of much use at pre-

sent; but, as they portray the period for labour in the field, as well as the various crops that are cultivated in this province, they may prove a source of information to people in Europe, who may be inclined to emigrate hence. For this reason I had them reprinted. To the above gentlemen I must acknowledge myself indebted for publishing various papers on agriculture; and I have reason to believe, that to their patriotism in promulgating such information, great public benefit will eventually be derived to this province. The present period is very propitious to the advancement of agriculture, as there are societies established this year, (1817), headed by persons of the first respectability, to promote a better management of rural economy.

Agricultural Report for the District of Montreal.

JUNE 1816.

The continued cold weather and frosts to the middle of this month, arrested the progress of vegetation, and injured the rising crops in a great degree. The grass on high as well as on low lands is very thin and short. The wheat has a better appearance than might be expected from the sudden change in the

latter part of the month to excessive heat and continued drought. The barley is promising, but very short; as is also the wheat; neither have branched out from the root as usual. The oats are short and thin, but keep a good colour. The pease are well coloured, but are very short. The attempts heretofore to introduce horse beans, have often been frustrated, from too late sowing, and too light soils; those sown this spring, on strong soil, prepared last fall, promise success, and have the best appearance of any crop on the ground. The greater part of Indian corn, or maize, that was sown early, rotted in the ground; those lately sown are hardly fit for the first hoeing. The wire worm has been destructive; as also a species of caterpillar, not noticed before to have attacked this kind of corn. The hops have suffered much by the frosts in this month. The potatoes have not, generally, made their appearance above the surface of the earth.

JULY 1816.

Although very little rain has fallen this month, vegetation, when compared with the last month's unfavourable prospect, has much surpassed our most

sanguine expectations. This alteration has been occasioned from the very heavy dews experienced since our last report. The wheat, although thin, with a few exceptions, bears an appearance equal to the most favourable years. Barley is fine; the early sown is now changing colour, and will soon be fit to cut. Rye, which is much neglected by the Canadian farmer, and only sown on a few sandy spots, looks well. The early sown oats are good; of those sown late, the greater part of the seed has not yet vegetated.

Buckwheat.—This species of grain being the last that was sown, and that in the latter part of June, little of the seed has yet vegetated, and consequently a crop cannot be expected. The Indian corn looks well in some parts; however, at this advanced season, it is doubtful whether much will ripen this year. The pease have a very favourable appearance, and a good crop may be expected. The blossoms of the horse-beans were injured by the frost on the 6th inst. The hops also suffered much at the same time. The hay-making, which is begun, scarcely gives assurance of more than two-thirds of a crop, when compared with last season, which was in general allowed to be very good. From the season being so far advanced, there is but little prospect of cutting hay a second time.

Turnips.—This root, next to potatoes, both as food for man and cattle, has been cultivated to a greater extent in this, than perhaps any former year; they have been in a great degree a prey to the fly, but early rains may probably yet save them. The potatoes planted on light soil have a good appearance, those set on strong loam are not so forward, but in general the prospect of a good crop presents itself.

When a review is taken of the present state of crops in general, and the probability that a deficiency will arise in the article of fodder, during the ensuing winter, it may not be improper to point out to the industrious farmer, substitutes for the food usually given to horses, horned cattle, and sheep, during that season; and which might be collected from the wild growth on almost every farm; viz. mugwort, called by the Canadian peasantry, Herb St. Jean, thistles, wild tares, and hop clover, to be given to horses. For horned cattle and sheep, the cotonier, or milk weed, panet or wild parsnips, wild endive, or chiccorée, the young growth of raspberries, the fern and the wood, or bouquet Jaune; the whole of the abovementioned would prove a valuable addition to the winter stock of hay, straw, &c.

AUGUST 1816.

It is with pleasure we are able to say, that this month has been the most propitious of any preceding one since the opening of the season, for agricultural pursuits. The rains which fell were so ordered by the Divine Ruler of the universe, as to be sufficient to give a due nourishment to the fruits of the earth, and bring them to maturity, without at any time impeding the securing of those that were ready to harvest.

The clover and foxtail, or timothy hay-making, which began the latter part of last month, and concluded in the early part of this, was housed in good order. The franc foin, Dutch gold top, and foul meadow grass, on low lands, are a little more than half a crop, but the coarse low island hay is more abundant than usual.—The barley was cut and housed in the middle of the month; the ear is long, and the grain very plump and heavy.—The wheat harvest began about the 21st in the southern and eastern parts of the district; a great portion will be housed this month; the ear appears more like Autumn than Spring wheat. The quality is excellent, and far beyond expectation; those in the northern and western

parts of the district will not be ready to cut until the end of the month.—The rye is a good crop, and has been housed. Some oats have been cut and housed, but the greater part were out, and very green at our latest dates. The rain has brought forward the buck-wheat, which is in full bloom; the late frosts checked it, so that the crop will be very light.—The Indian corn has improved in height, but very little in ear or cob. The early pease on high light soils, have been housed; those on strong low soils were very green at the close of the month, but well podded. The large pease have not half their bloom set, they are much exposed to mildew. The horse-beans will be ready to cut by the end of the month, and will make a good return. The hops will be a light crop; the picking of the bells will commence about the middle of next month. The turnips on old land have been destroyed by the fly, those on new have suffered very much; they will not yield above half a crop. The potatoes in every situation have improved in appearance; the small trials made to ascertain the fruitfulness of the plant is not so satisfactory as could be wished, but they have yet much time to improve. Summer fallowing was attempted before the rain fell, and has been continued during the month. The fear of a want of fodder has in some measure disappeared by

the happy effect of the rain, creating fresh growth in these plants which had not arrived at maturity; however, it may be held in view, that they are not yet secured: therefore we must still recommend peculiar care to collect every kind of forage that can be got for winter use.

SEPTEMBER 1816.

Since the first week there has been a continued drought to the end of the month; the weather has generally been very hazy, attended with cold winds; on the 11th a severe frost was experienced. The 19th and 20th were extremely warm; the 26th, 27th, and 28th, the frost was so severe, as to complete the destruction of the potato halm, which escaped that of the 11th. The effect of such unseasonable weather has been particularly felt by all the standing crops, which were in a backward state, requiring warmth and rain to bring them to maturity.

The wheat in the north and west parts of the district, which remained at the date of our last report, has been housed, and is very fine.—There still remains out through the district a quantity of oats, a great portion of which cannot ripen, and must be cut

for fodder. The early pease have been got in; the quantity is great, but the sample will not be generally good, there being nearly one-third that were not perfectly ripe. The large white and green pease, have not come to perfection; the frost, and continued chill in the air, have prevented them from ripening; many have cut them for fodder, those yet standing await the same result. The Indian corn was destroyed by the frost of the 11th inst. and it is doubtful whether seed can be obtained for another year. The horse beans have been housed in good order; they are very productive, and deserve attention by every cultivator that has soil fit for them. The picking of hops was concluded at the close of the month; the planters had a dry time for that labour; the quantity and quality are both deficient, when compared with more favourable years. The potatoes have had to contend with a dry season; superior tillage and manure have not insured success with this crop; the want of rain, joined to the early frosts, has caused a great deficiency in most situations of this valuable vegetable root; they cannot be rated at more than half a crop. The meadows have made little progress since they were mowed; the country has seldom witnessed so great a want of green food for feeding of stock, as has been experienced this summer. Lucern has only been

cut three times this year; in most others, it has been cut five times. Although a native of Media, it succeeds very well in this climate, from its quick growth and great produce. This grass cannot be too much recommended to the new settlers, for feeding their young stock, and particularly their pigs. People in those situations are always in want of food for their young animals.

The progress of the plough has beeen arrested for the greater part of this month on strong soils; rain is much wanted, to facilitate the advancement of that labour.

OCTOBER 1816.

The little interest this month presents in rural pursuits, renders a report almost unnecessary, were it not proper to exhibit the residue of the revolving year, wherein the farmer has had hope and fear in continual view, and, for the present, closing every expectation of further reward for his toils during the season.

The oats and pease that remained out at the date of our last report, have been generally got in: they can only serve for fodder. The weather was very favourable to the middle of the month to get up the

potato crop, which has generally been found light. Various trials have been made on the culture of beets, carrots, and parsnips, in the open field, under the horse hoeing husbandry, for feeding and fattening cattle and hogs, the produce has been abundant; they have the peculiar advantage that no insects annoy them, which make them sure crops, when the soil is fit for their culture. Few farmers enter into the merits of root crops, except potatoes and turnips. There is no crop so uncertain as the latter.—The culture of cabbage in the open field under the plough succeeds extremely well. It is rare to see any in that situation. While the farmers neglect the many facilities to increase food, which can be obtained from the fertility of the soil, in order to raise and fatten stock, this country will remain open to competition, and the valuable branch of breeding and fattening stock will be performed for us by our neighbours; thus depriving the province of considerable sums annually, which might be obviated by attention and appropriate regulations.

The greater part of the land for sowing of wheat, barley, and pease, in the ensuing spring, has been ploughed. From the appearance of the weather, that labour may be continued to the middle of next month.

NOVEMBER 1816.

THE ploughing ceased on the 18th, when the frost set in. This year was particularly unfruitful, not only in America, but in all parts of Europe.

APRIL 1817.

THE season for rural pursuits opened on the 21st. Some partial operations took place on the preceding week, which were premature. The sowing of wheat, barley and pease, has been general in the south-east angle of this district, as also the drilling of horse beans. In the north-west angle, the sowing of the wheat began at the close of the month. The soil has seldom been in a better state to receive the seed; the strongest was rendered as fine as sand by the operations of frost during the winter. Although vegetation has made little progress to the view of an indifferent observer, yet those who look minutely to the budding of trees, find them in a state to give confidence to the rising year. The plough has been actively employed on lay land, with the exception of two days occasion-

ed by the fall of rain and snow, which stopped every operation. The meadows, although uncovered a great part of the winter, have not suffered so much as might be expected, and at the close of the month had begun to assume their wanton colour. The hops have suffered by the frost in the winter, on light soils. The making of sugar is an appendage to husbandry in this part of the world. It may not be improper to state, that it has been very successful this spring, from the frequent frosty nights succeeded by clear weather and bright sun.

At the close of the month, the wild flowers had begun to bloom in the woods.

MAY 1817.

The fine warm weather at the beginning of the month gave a cheerful hope for the rising crops. The seed of every description was got into the ground without impedement. The alternate changes of heat and cold from the 9th to the 31st, with almost continued drought, kept vegetation in a languid state through the latter part of the month. The wheat on summer fallows looks very healthy, but that on land less prepared, has suffered much by drought and ver-

mine. There have been several instances where it was necessary to sow the land a second time, the first being seed that had been heated, it did not vegetate. The early sowed barley suffered by the frost; the late is rising and has a good colour. The pease have a favourable appearance. The drilled and broadcast horse beans look healthy; they may be considered a new production, and offer a great advantage to the country. As ingenious individuals are promoting their growth, it is necessary to observe, that the cabbage caterpillar is preying on them this spring; they may be discovered by removing the earth from the beans that are attacked. There have been more potatoes planted this year than in most former ones. Beets, carrots, and mangle-wurtzel under the drill husbandry are only beginning to rise. The grass in the meadows is very short and thin. The clovers of each denomination have suffered more by the frost than any other grass. Lucern was one foot high at the close of the month, and might be cut. The pastures have seldom exhibited such deficiency as at the present. The great inconvenience inseparable from the practice now in use, might point out to the farmers the propriety of changing their method, and sow grass seed in order to provide for their stock. The hop vines have a good appearance for the season.

PLASTER OF PARIS.—This valuable manure is at length drawing the attention of the farmers of this district. Its virtue and cheapness offer greater advantages than any other for a top dressing.

By report, it has been said that the vast number of pigeons this year had destroyed much of the seeds; but it appears that what they ate was taken off the surface, by examining what was in their craws when they were killed; there was not the least appearance of the grain having germinated before they had taken it up.

JUNE 1817.

The favourable change of the weather at the beginning of this month, with frequent rain through the whole of it, has removed the fear occasioned by the drought of the latter one; the progress of vegetation has been extraordinary, and promises the most happy results.

The wheat following green crop is very luxuriant; that on autumn fallows has tillered much, and has a fine appearance; the early sowed barley is in ear, the late is very strong and healthy. The oats look well. The pease bear a better appearance than in most for-

mer years. The horse beans are in bloom. The potatoes are fit for the first dressing. Some inconvenience has been experienced in this crop, by planting seed which did not vegetate, but it is not too late to plant again. Some potatoes were planted last year on the 16th July, which came to maturity, and produced a very good return. The catterpillar, called the cabbage grub, is preying on the potato plants by cutting them off about one inch above the ground, after which they return into the earth: they may be discovered by removing the mould from about the stem, where they have cut off the head. The hops are strong and healthy. The beets and mangle-wurtzel have suffered much by the turnip fly. The carrots have a fine appearance. The meadows are more backward than any other growth: the hay crop does not offer that abundance which might be wished; the pastures are much improved, but are yet inadequate for full seed.

JULY 1817.

THERE has been a great similitude in the weather of this month, to that of the last, with the exception of the present being much warmer: the effect of frequent rain succeeded by heat, has produced an ap-

pearance in the crops that promises the most abundant harvest ever known in the annals of this district.

The wheat is very strong, and changing colour rapidly; it only requires dry weather for two weeks to complete its maturity; some very rank grain was laid by the heavy rain at the close of the month, which may cause it to rust. It is to be regretted the farmers pay so little attention to the choice of seed wheat: some disappointment will be met with in the north, from an injudicious choice of seed, although strong injunctions were presented on that head in the spring to avoid sowing spotted wheat. Rye is nearly ripe, it will yield well. Barley is a heavy crop, it will be fit to cut by the 8th of the ensuing month. The oats are in a forward state, but in some parts thin. The field pease were fit to eat on the 20th; the crop will be abundant. The failure of buck wheat the last two years, has deprived the farmer of the means to sow an extent of ground, but small patches are seen, which look well—they will soon be able to enlarge to their usual quantities, which were very great formerly. The advantage of this crop for bread stuff and food for every kind of stock, has long been held in high estimation by the Canadian farmers. The Indian corn has met with the fate of the above crop, and is in a like situation. The horse beans are very

forward, and well podded. The potatoes have a very fine appearance—their culture is well understood on the Island, and perhaps is equal to Europe in point of excellence. The turnips have been destroyed generally by the fly on new burnt land, those on the old have met the same fate. The cabbages in field culture have suffered also very much by the fly. Carrots, beets, and mangle-wurtzel look well. Haymaking began on the 20th; the crop is very light in general, when compared with former years. Lucern sown this year was fit to cut when it bloomed in the middle of the month—thus two crops can be obtained the year it is sowed. The hops have the appearance of yielding an abundant crop. Summer fallows are in an advanced state.

AUGUST 1817.

Part of this district was visited this month with one of the greatest storms known in the memory of man. The frequent heavy rains from the 3d, to the 23d, had given cause to fear for the grain crops; however, it is with infinite pleasure that the premises in our last report, will be fulfilled in the present, by stating that from the forward state of the grain crops,

they suffered very little; and the bad weather only retarded the cutting of them.

The wheat harvest began in the midland parts on the 20th; the grain is very plump, and much was housed at the close of the month in good order. The barley was mostly housed at the above period, but it is not so weighty as that of the preceding year. The rye has been got in. The oats have improved by the rains, and will in appearance double the former expectations. The pease have suffered more than any other crop, by the frequent rain. The horse beans are changing colour; they suffered by the storm. The Indian corn does not offer much, the wet and the storm have injured it. The potatoes in high situations are a heavy crop; in low, very poor. Root crops have suffered generally by the rain. The cabbages in field culture are not promising. The hops suffered more by the storm than any other crop, by the poles being broken; the bells are nearly fit to pick from those unhurt. The hay-making was mostly finished this month on uplands, very little has been spoiled, but the colour is generally bad. Great part of the low meadow hay will be lost or spoiled, from the land being flooded so frequently.

SEPTEMBER 1817.

THE weather was very favourable to the 21st, which enabled the farmers through the district, to house the wheat crop in good order. The early sown oats were well housed, but great part of the late will be very bad, from the moisture of the preceding month, which kept them growing; many of them will only be fit for fodder; much was standing at the close of the month. The early sown pease were well housed: the late have suffered like the oats; many were out at the close of the month. The horse beans have been cut; the crop is very good. The Lucern sowed this spring was cut a second time at the beginning of the month. The frost on the 29th and 30th killed the potato vines; but as the crop had arrived nearly to maturity, little damage will be occasioned by it. The hops were nearly picked at the close of the month: some plantations proved more abundant than usual, but the quality is not so good as in dry years.

The ploughs have been actively employed on lay land: the weather has been very favourable since the the 22d for that labour.

OCTOBER 1817.

This month has been very unfavourable for rural pursuits; the frequent changes of the weather causes much trouble and disappointment to the farmer in housing the late crops; but there was scarcely any thing out at the close of the month.

The oats have been much discoloured, nor are they weighty. The late pease have suffered in colour, many not having ripened. The horse beans were housed in good order; this pulse will be a substitute for Indian corn, when sowed early; they ripen well, and are very good for horses, pigs, sheep, and poultry.—The low meadow and low Island hay, is very light and bad; it being always cut late in the autumn, it could not be housed well on account of the continued rain. The potato crop has been generally got in: those on high ground have been very productive, and from the immense quantity that was planted this spring, there are perhaps more than in any former year. Carrots in field culture are a fair crop. Parsnips are scarce, from bad seed. Mangle-wurtzel has been successful on high land. The cabbages are very indifferent, from the turnip fly having preyed on

them when young. The turnip crop is very light, from the fly: they were generally cut off; those sowed in August stood, but it was too late to form any size.

From the changeable weather which prolonged the housing of the crops, it had the effect of preventing the farmers from ploughing, some ground being too wet: that labour is not near so forward as it was at this time last year; however, should the season be like the last, it may be continued to the middle of next month.

APRIL 1818.

Some partial operations took place with the plough in the middle of the month, but the continued heavy atmosphere, accompanied with light rain, kept the earth in so moist a state to the 26th, that no wheat was sowed until the 27th, when many people in the centre of the district were induced to commit their grain to the ground; on the 28th the weather changed to rain, which continued to the end of the month.

Although a protracted seed time is very unfavourable to future operations, yet there is still time to perform the various labour, should a change take place in the early part of the next month.

The vegetable world advances very slowly; the forest has yet a sullen appearance; the best meadows exhibit but a few blades of grass. Thus it may be considered there is no time lost, for unless there is congenial heat, although the seed be sown, it cannot vegetate.

Very little maple sugar has been made, on account of the cloudy weather preventing the running of the sap.

MAY 1818.

This month began with very unfavourable prospects for rural pursuits, the weather being very wet and cold until the 9th, when a favourable change took place, which continued till the close of it. The sowing of grain and pulse was resumed, which has been followed up with unexampled diligence: perhaps few years have surpassed the breadth of wheat sowed this season. Although the earth was much flattened by the rain which fell since the opening of the spring, yet the young wheat and barley have a very fine appearance. The pease and horse beans being so lately sowed, are only making their appearance above the ground. Potato planting has begun; the farmers cannot be too attentive in propagating that valu-

able vegetable root, as it is superior to any other to preserve in this climate; and no one offers a greater advantage than it to feed or fatten stock of every kind. The weather having retarded the sowing of carrots, parsnips, beets, and mangle-wurtzel, there is yet time until the first of next month for them to come to maturity. Turnip fallows have had their first furrow. It is advisable to sow the roota-baga, or Swedish turnip by the middle of June; the other field kind may wait until the close of that month. The hops have been dressed and poled; the vines are very luxuriant. The meadows have lost their variegated hue; they now present a flattering prospect of a good crop of hay. Lucern was near two feet high at the close of the month. Saint foin had not been successful on light soil; on strong it offers a better prospect, but does not surpass red clover at the present. The warm light rain on the 18th and 19th had the effect to change the appearance of the forest from a dusky brown to that of a beautiful green, in the space of a few days. On the 24th, every tree had expanded its leaves, except the sweet hiccory.

JUNE 1818.

This month opened with very favourable prospects for vegetation, the alternate rain and warm weather promoting the growth of each crop on the ground; but that favourable prospect has in some measure been disappointed by a continual drought from the middle to the end of the month.

The great heat, accompanied with drought in the early part of the spring, is disadvantageous to rising crops, and often causes them to become a prey to insects: such has been the case this spring in several parishes.

The wheats are generally thin and short, for the advanced state of the year; and much of them are of an indifferent colour. The barleys are very fine; the ear is projecting from the sheath. The oats are only a little above the ground. The pease are not generally good; they want rain. The culture of horse beans has been much extended this year, and will soon become a general object among the farmers: those that were early planted, bloomed in the middle of the month, and have a fine appearance. The failure of Indian corn these few years past, has caused a discon-

tinuance of its culture on a large scale. There are small patches planted this spring that look exceedingly well. The planting of potatoes finished about the 10th; they are only risin above the ground, and look well. Root crops in general, being got in the ground so late, are short, but look well. The hops are very fine. The clover and foxtail, or timothy, are in bloom, and nearly ready to cut—the crop has not an appearance of being very heavy. Lucern has been cut twice this spring. Sainfoin was in full bloom in the middle of the month.

The culture of flax in small quantities is a general object amongst the Canadians; that on the ground looks well, but unfortunately too little care is taken in the choice of the seed to sow, or the preparation of the soil to receive it: were they to clear their potato ground, and sow it with flax seed the following year, the crop would be infinitely better. An extension of that article is much wanted where it becomes an object to dress; machinery might be erected in the seigneuriel mills to dress it, and an article for exportation would present itself to the enterprising merchant.

The fattening of cattle has engaged the attention of Canadian farmers this spring, as well as the raising of stock; but it is to be lamented that they pay so little attention to lay down a portion of land with grass seed

for their sustenance in summer, as well as to furnish hay for winter food. Unless this be done, it is impossible to rear animals to a size that will be either of use to themselves, or advantageous to the market: the present method of pasturing will ever keep the stock in a miserable condition, and deprive the country of a finer race of animals, which the soil is capable of supporting, when it is properly managed.

JULY 1818.

The weather has been favourable through the month, to promote the growth of each crop on the ground. Some of them have improved beyond the most sanguine expectation, but the wheats in general have not improved in length or thickness so much as could be wished. This crop being the first that is sowed, it had to combat with a late and wet seed time; it was scarcely above the ground, when a drought took place for some time, accompanied with a very hot sun, contracting the vegetable faculties, and giving the insects facility to prey upon the young plants, thus rendering a doubtful prospect of an abundant harvest; yet there is much that has a good appear-

ance, which is changing its colour very fast, and will be fit to cut by the middle of next month.

The barley is generally a very heavy crop, the cutting of it took place at the close of the month. Rye is a good crop, it was ready to harvest at the close of the month. Buck wheat has a good appearance, and promises a good return. The oat crop is only partially good, much of it is very short. The Indian corn is very good, the dry weather and great heat have been very favourable to its growth. The pease of each kind offer an abundant crop. The horse beans have suffered much from the sun causing the blossom to fall off. The planting of potatoes has been very extensive this season, they have a very fine appearance. The turnip crop offers more than for many years past; and they are now out of danger from the fly, which is so destructive to them. Root crops in general have a favourable appearance. The culture of cabbage has been unsuccessful. The hops have put forth their bells; they promise a good return. The making of hay began about the 15th; the weather was very favourable for housing it, but it was not all finished at the close of the month. The red clover is a heavy crop, the timothy, or fox-tail, much higher than usual.

AUGUST 1818.

The weather has been very favourable through the month, to secure the crops that were fit to harvest. The wheat has generally been housed in good order; very little was standing at the close of the month. The grain is of a good quality, but the quantity is one-third less than last year. The deficiency of straw will be seriously felt by the Canadian farmers, who depend too much on it for the food of cattle in the winter.

The barley was secured in the early part of the month; its quality is superior to that of last year. A great part of the oat crop has been got in, in good order, the remainder is in a forward state. Part of the early pease are housed; they are a very heavy crop. The horse beans are ripe, but not yet cut. The picking of hops will not take place until the early part of September, fifteen days later than usual. Root crops in general have a fine appearance, and promise an abundant return.

SEPTEMBER 1818.

The changeable weather through the month has been very unfavourable for the reaping of late crops of grain. The only advantage derived, was that of putting the earth in a state to plough; which labour had been much impeded by the drought of the latter one.

Some small portions of wheat that were out at the beginning of the month, were injured by the rain, it having sprouted before an opportunity offered to house it.

The late sown oats have been kept in a progressive state of verdure; considerable breadths were standing at the close of the month, which cannot be expected to ripen. Much of them that were out and lying on the ground, had sprouted prior to being housed.

Buck wheat has been very productive this year, as there has been no frost, which is but too often a cause of disappointment to the farmer: when it is sown early in June, it seldom fails.

Indian corn has ripened well this season, and is a very good crop. The late unfavourable years to its growth, from the too great chill and moisture of the

air, had discouraged many farmers from the attempt to propagate its growth; so little of it coming to maturity, it also became in a manner extinct: however, as it is a primitive object to new settlers for bread stuff, as well as for fattening of stock, there is now an opportunity to obtain very good seed for the ensuing year, which no one in such a situation ought to neglect.

The horse beans present only a middling crop; they being chiefly grown in quantity by Europeans, are stuked, therefore receive less damage than crops left to dry on the surface. The large green and white pease suffered much by the rain.

The hops are of an inferior quality, and much lighter than usual; their seed, the abundance of which gives them a preference of 50 per cent. over those grown in the United States, has not generally ripened this season.

From trials made to ascertain the state of the potato crop, there appears to be a full average one of common years. The carrot crop is very good, and offers a great advantage to stock farmers. Carrots will winter in the ground, if an opportunity should not offer to take them out.

Turnips have been more productive this season than for years past. The common field ones are the

chief the farmers attend to; but the Swedish deserves the greatest attention, particularly from new settlers, as they may winter out in the ground, or under little protection; the frost has little or no effect on them. If they do not arrive at the size or weight of the common field turnip, their resistance to the frost, and long duration of perfection for the table, as well as for the sustenance for each kind of stock, give them a decided preference in the country to any other.

OCTOBER 1818.

This leafless month offers very few objects in rural pursuits. It only winds up to a close the labours of a declining year; yet, few as they are, their consequence is still great to the farmer and the poor; it being, as it were, the harvest or gathering time of vegetables, next in relation to grain, as sustenance for man and beast.

The fine weather through the month favoured the securing the late oats and pease, which were out at the close of the last one.

The potatoes have been generally got up dry: they are more abundant than was expected, and the quality very good.

The turnip crop is partly got in; they were never known to be more productive than the present year. The carrot crop is very good. They deserve every attention from the farmers who have soil fit for their culture, there being no root better to feed every kind of stock than them.

Autumnal ploughing is in a forward state, and the land is in very good order for the labour, which offers a pleasing hope for the ensuing year.

NOVEMBER 1818.

The weather having been mild through the month, the ploughing has been continued, and the fallows never had a better appearance than at present. The open weather has enabled the stock of each description to feed abroad until the close of the month; a circumstance very favourable, as there was an appearance of a deficiency of forage.

No. III.

CULTURE AND MANAGEMENT OF HEMP.

SOME years ago a trial was made, under the protection of the government, to introduce hemp as a staple commodity for the provinces. Unfortunately political events obstructed that effort; the American embargo gave so great a scope to mercantile enterprise, particularly the lumber trade, that there was scarcely any bounds to the price given for labour. Soon after the war ensued, which, it may be said, gave a death blow to agricultural pursuits. The present offers fairer prospects, by the general peace now taken place. Should a future attempt be made for its introduction, a recital of the practice and experience of many years may be useful to the undertakers.

Culture and Management.—Hemp requires a rich, deep, and moist soil; a hazel loam is its favourite. It will also do well on black soil, when drained. The ash swailes are preferable to the cedar swamps for its growth; a tolerable crop may be obtained on light

yellow loam, when moderately manured. Strong loam, that has been cropped with potatoes, lightly dunged, and ploughed directly after they are taken off the ground, will bring a good crop of hemp the following year. Old meadows that are broken up after the crop of hay is taken off, by receiving two or three ploughings, and being laid well up, may be sown in the spring, as soon as the snow is off the ground. The land should be laid out in ridges six feet wide, and be harrowed fine; after which, the seed is sowed and harrowed in with a very fine tined harrow. Should there not be one of that description, a bush harrow must take its place; the seed being small, a heavy harrow would bury them too deep. The seed of this country being small, one minot is sufficient for an arpent of land, but it will require double that quantity of English seed to furnish sufficient plants; the seed being nearly twice the size of that of this country. After the seed has been harrowed in, and the water courses cleared, no further attention is required, until the male plants are fit to pull, which is in September; they are known from the dust falling from them, and their leaves turning yellow. They are pulled up by the root, and placed together according to their lengths; sometimes there is only two distinctions; if more, they are classed accord-

ingly, in order for dressing. The male stalks must not be allowed to stand until the female stalks are ready to be pulled, because they rot by standing, and spoil the colour of both. In order to collect the plants, two people take a land between them; they go up the furrow on each side of a land, and advance one foot on the land, and pull up the stalks, avoiding as much as possible the breaking the female or seed-bearing plants. The stalks are tied up in bundles about the thickness of a man's thigh. When they are pulled, they may be put to rot directly in a river, brook, or pond. A place may be prepared with stakes, according to the quantity there may be to rot. The hemp must be all put in at the same time, that it may be all equally rotted. Boards are put on the top, and large stones on them to sink the stalks, so that every part may be under the surface of the water. When it has been twenty hours in steep, examine the stalks that are about one foot under the water. If the rind comes off from the root to the head of the stalk, it must be taken out immediately, and spread thin on a clean meadow to dry. If a sandy beach is at the rotting place, there cannot be a better. When they are dry, they are gathered up, tied in large bundles, and housed; they are then ready to break when an opportunity may offer. Hemp seldom takes more

than from twenty-four to thirty hours to rot in the month of September. If it be left in the water only a few hours over the time it should be taken out, the rind or harl will leave the stalks, and no hemp will be obtained from them. The way to know when the seed is fit to gather, is by examining the heads of the female plants; when the seed may be perceived opening the green husk that incloses the seed, which takes place at the end of September, or by the 8th of October. The stalks are either pulled up or cut with a sickle. The cutting is preferable, as the stalks are less shook by that operation, besides, the mould is thereby prevented from mixing with the seed; the roots of the female stalks are inconvenient in dressing of them. When gathered, they are tied as directed for the male plants; they are then piled in the field, in the form of a sugar-loaf, thin enough for the air to pass through and dry the stalks. In three or four days they may be carted to the barn, to have the seed taken out. Great care must be taken that the seed is not shaken by removing the stalks.

The Method to take out the Seed.—A bench is made whereon is placed a board two feet long; in the centre of which there are two rows of iron tines

one inch broad, and about a quarter of an inch thick; they intersect each other at one inch distance, and are nine inches long. The board is placed on a decline from the person that cleans the seed; a foot board is placed from the top of the bench to the floor, for the cleaner to put his foot, so as to command the handful that he strikes on the tines. The cleaner must not be allowed to wear heavy shoes, lest he bruise the seed. Moccassins are best for that labour. As the seed is taken out, a boy ties up the bundles of stalks. They are put by until the following spring to rot, when the hurry of the work is over, which will be at the end of June. They are managed as directed for the male stalks. The season being so far advanced when the female hemp is gathered, that were it put to rot, it could not be dried on account of the frost so very frequent at that period, and the sun having so little power to effect the purpose. The seed is cleaned and put in a secure place from vermin, which are very fond of it.

Breaking.—Hemp requires two sized breaks: the first a heavy one; and in order to assist the workman, a spring pole might be affixed to a beam in the barn, where a rope could be placed to the head of the

break from the end of the pole; by which means the upper jaw of the break being risen up, the man would have only to strike it down on the stalks; one man can furnish sufficient for three boys or women, who would pass it through fine breaks, which are closer than the flax breaks of this country. If care is taken in this process, it will require very little swingling, which last labour is performed with a wooden knife, about two feet long in the blade. The handfuls are held over a board, placed aslant from the person that does the work, which is to strike off the sheaves that hang on the hemp. It is then laid on a table, each length by itself, and tied up in heads, which ought to weigh fourteen pounds each. It is then ready for the market.

Remarks.—Dew rotting of hemp gives it a bad colour, and it is not fit for the purpose of navigation. Snow rotting has a worse effect, by its destroying both strength and colour, which are its primitive qualities. The male is fittest to make cloth, and when well prepared, is of a silver colour; the female is of a brown colour, and fittest for cordage. That of a green colour is gathered before it has arrived at maturity. Autumn sowing is hazardous; mild weather

making the seed grow, and the frost killing the plants. Sowing on the snow exposes the seed to be ate by the field mice. Those two points I have proved. Sowing early in the spring will insure a crop, if the seed is good, and the land in a state to bear one. When a linen crop is intended, the seed must be doubled, which will produce stalks about three feet long. The former quantity, (one minot), will produce stalks from six to eight feet long, which are for exportation. It has been advised to sow hemp thin, in order to obtain more seed, and throw the stalks away; those who practise that method deceive themselves, because the seed only ripens by degrees, and sheds itself at every wind that agitates the stalks: but when sowed full for a crop, it ripens equally all over the field, and produces better seed. An arpent will produce eight minots of seed, and three hundred pounds of merchantable hemp.

EXTRACTS

From the Transactions of the Society of Arts, &c. Vol. xxvii. *p.* 221, *et seq.*

PAPERS IN COLONIES AND TRADE*.

The Silver Medal of the Society, set in a broad gold border, was this Session voted to Mr. Charles Frederick Grece, of Montreal, Lower Canada, for the culture and preparation of Hemp in that Province.

The following communications were received from him, and samples of the Hemp and Seed are reserved in the Society's Repository.

DEAR SIR,

I TAKE the liberty to inform you, that I have bought a farm near this city, and sowed this year

* These Papers are introduced here as the most satisfactory mode of showing the importance attached to the culture of hemp in Canada, by the intelligent body of scientific characters composing the Society of Arts.

near twenty-six acres of land with hemp seed, which Government sent out last year, twenty-one barrels, containing upwards of two bushels each. I had not 2000 plants. In June, the ship Quebec brought some fresh; I obtained twelve barrels of that seed, and sowed it: a drought succeeded, and I lost my crop; but I am collecting seed, the growth of this country, as I find the foreign cannot be depended on. I have sown five acres this autumn, to try what effect the winter will have on it: should it do well, it will be of great advantage to abridge the labour in the spring. Some seed, the growth of this country, did very well: that I sowed in May; but June is too late, unless it be a wet season. I have every reason to believe that the farmers will enter into this cultivation as soon as it is made known; the favours of the Government have not yet been published. I have applied all this year, and at last it is desired to be published for the information of our farmers; but we have not seed for one quarter of the applicants. I am about to erect a machine to break and swingle hemp; should it succeed, I will send a model to the Society. I presume I cannot become a candidate for your premium, the crop having failed. I cannot judge only from one bushel of Canadian seed, which I have kept an account of. I have forwarded a certificate to my bro-

ther, the President having complied with the order of Council, and I should be glad of your opinion on that head. Permit me to subscribe myself, with grateful memory of your kindness when in England,

Your most obedient, and very humble Servant,

CHARLES FREDERICK GRECE.

Montreal, Lower Canada,
Nov. 3, 1806.

To C. Taylor, M. D. Sec.

Sir,

A box of hemp was shipped at Quebec, on board the ship Jane, Captain Scott, which cleared at that port, on the 3d instant, for London, directed to you: the freight was paid by me. A certificate from his Excellency the Governor-general of the Colonies of North America, according to the directions of the advertisement of the Society of Arts, of London, was put on board: a duplicate of said certificate was put on board his Majesty's ship Amelia. By mistake, the gentleman at Quebec omitted informing me in time of the vessel the box would go by, which obliges me to inclose my report in the present letter, which I hope is such as is required by the Society: and should I merit the honorary reward, I shall be ever thankful for the favour so conferred on me.

Should any communication be required on agricultural pursuits from this country, for the information of the Society, I shall always be happy to attend to their requests. I am, Sir,

Your most obedient, and very humble Servant,

CHARLES FREDERICK GRECE.

N. B. Captain Patterson, of the Eweretta, New York Coffee-House, will take charge of your commands.

Report of Charles Frederick Grece, of the Isle of Montreal, Lower Canada, to the Society of Arts, &c. of London, on the cultivation and manufacture of the produce of one arpent of land with hemp, being part of 34 arpents, cultivated by him, in the year 1807. The soil a black loam; it was an old meadow.

	£	s.	d.
Rent* of land *per annum*	0	6	6
Ploughed up in the autumn 1806	0	10	0
Cross ploughed in the spring of 1807	0	7	6
Harrowing	0	1	0
Carried up	1	5	0

* The rent of lands here, amongst the Canadian farmers, is not thought of.

	Brought forward	1	5	0
June 12.	Sowed broadcast, one minot of seed equal to 36 quarts Winchester measure	0	11	3
	Bush harrowed the seed in the ground	0	0	6
Sept. 3.	The male stalks were pulled, and put into a scow in the river St. Lawrence, to rot; when rotted, spread on a meadow to dry; and when dry, housed	0	18	10
Oct. 16.	Pulled the female stalks or plants	1	6	3
	The seed was taken from the plants by a machine, resembling a stool with two rows of iron teeth, one inch and a half apart, intersecting each other	0	9	2
	Put to rot; when taken out and dried, it was housed	0	7	6
	This hemp was dressed by a mill, which goes by the assistance of two horses, the expense of breaking, and swingling	2	0	0
	Total expenses	6	18	6

N. B. The Protestant planters pay no tythes.

Produce of seed was seven minots and a half, at 11s. 3d. per minot	4	4	4½
Fine hemp, 226lb. at 47s. 9½d per cwt.	4	16	4
Out shot, 45lb. at £40 per ton.....	0	16	0
Tow, 20lb. at .... ditto	0	7	1½
	10	3	10
Expenses brought down	6	18	6
Profit	3	5	4

From the season for agricultural pursuits being so very short in this country, it would be difficult to plough the land twice in the spring; the autumn ploughing being performed, the frosts in the winter leave the lands extremely mellow, and it appears once ploughing in the spring answers very well. The drill husbandry for hemp, I presume, would not answer, on account that the plants, (having too much room), would become too strong, and produce little rind. I have been convinced, that the finer the stalk, the more rind is produced. I have sown less seed than usual to the arpent, in order to obtain taller plants. It seems two bushels and a half only produced a linen crop, which is not the object of the people of this province; they want long hemp, for the purposes of navigation. I have sown all my land broadcast, after two ploughings, and have had some part harvested with sickles, which is a saving of one pound five shillings per arpent, and it is an advantage in doing away the roots, which make the heads of hemp, when dressed, unsightly; and I have heard the manufacturers in England complain of them.

Last winter I rotted some hemp in the snow, when it first fell, and succeeding snows covered it two feet. In the Spring I found it very black, and very rotten;

as such, neither snow nor dew rotting will do for foreign markets. I have great hopes that in a few years many people will get into the culture of this article. I have adopted the method to purchase it in a crude state, which is a great encouragement to those who doubted their ability to manufacture.

Last year much land would have been sown, but the seed for that purpose could not be obtained, from the heavy rains which fell, and carried away bridges, and broke up the roads in the United States, the way it was coming hither. I am, Gentlemen,

With the greatest respect,

Your most obedient and humble servant,

CHARLES FREDERICK GRECE.

SIR, QUEBEC, *July* 27, 1808.

WE are directed by Mr. Charles Frederick Grece, district of Montreal, to inclose you Governor Craig's certificate respecting hemp; also, bill of lading of a box containing twenty-six pounds of hemp, and three pounds of seed, shipped per the ship Jane, removed from the gentleman to your address.

We are, Sir, your most obedient Servants,

FRS. AND W. HUNTER.

To C. TAYLOR, M. D. SEC.

District of Montreal,
Province of Lower Canada. } I HEREBY certify, at the request of Charles Frederick Grece, Esq. of Longue Point—I, the underwritten, sworn surveyor, on this day, the twentieth of September, one thousand eight hundred and seven, have been on a tract of land, situate at Longue Point, in the county and district of Montreal, in the said Province of Lower Canada, the property of the said Charles Frederick Grece, where I have taken the dimensions of several parcels of land on the same tract, sown with hemp seed, which have amounted in the whole to thirty arpents, French measure. In witness whereof I have delivered the present under my hand and seal.—Montreal, the day and year above.

(Signed) LOUIS CHARLAND.

Sn. Surv.

(L. S.)

(L. S.)

I HEREBY certify, that according to the evidence which was laid before the Executive Council of this Province, in the month of September last, I am satisfied

that Mr. Charles Frederick Grece did sow thirty-four arpents of land with hemp seed, in the district of Montreal, as specified in the annexed certificate of Mr. Louis Charland.

J. H. CRAIG.

Castle of St. Lewis, Quebec,
March 7, 1808.

By his Excellency's command,

HARMAN WM. RYLAND, SEC.

The Society's Remarks.

THE encouragement of the culture of hemp in Canada is still attended to with a vigilant eye by the Society; and the information given by Mr. Charles Frederick Grece, points out how some difficulties which have intervened, respecting the procuring of good seed, may be prevented in future.

The Society lamented that, owing to some irregularity in the claim, they could not, consistently with their rules and orders, give him their gold medal; but they conferred upon him their silver medal, set in a broad gold border, as an honour nearly equal.

FLAX.

Flax requires a rich black soil, or a hazel loam, which is moist, but not wet. Yellow loam would bear a crop, if in good heart, but stiff soils never should be used for flax. It succeeds also where potatoes have been planted the preceding year. The land must be well ploughed, and rendered very fine, before the seed is sowed; it is covered with a fine tined harrow. No one should attempt to sow flax, that has not got clean land for the purpose. The plants are so tender, that much damage is done to the crop by the people that weed it. Two minots and a half of seed is sufficient for an arpent of land. When the stalks turn a pale yellow colour, and the leaves die, it is fit to be pulled up. If seed is the object, when the balls which contain the seed will break with a gentle pressure, the bundles may be removed to the barn, and thrashed; after which, they are tied up in bundles about the thickness of a man's thigh, and put to rot, as directed for hemp, requiring the same management in the steep. If intended for exportation, it is gathered when in full bloom; it then yielding a harl of superior quality, for the manufacturer to make linen; it is assorted in its different lengths for that purpose,

and kept separate, as directed for hemp; it is tied in small bundles, and put in piles, in the form of a sugar loaf, to dry.

Dew rotting flax makes it weak, and prevents its bleaching; as also does the drying it over a fire, prior to its being broken, and will prevent its sale for a foreign market. Machinery might be introduced in mills to dress flax.

The farmers grow flax; but from an improper choice of the soil fit for its culture, and inattention to provide good and clean seed to sow, they reap little advantage for their trouble. The practice of putting their flax to rot on the ground before they thrash out the seed, injures the grain so much, that one half of it is spoiled by the dew and rain. Were they to thrash it out prior to the rotting, it would be fit to ship to Ireland; and by having good clean seed, it would always command a good price for exportation.

A machine to clean the seed can be made of tin, by punching it with holes to let out the false flax seed, and small seeds of weeds; it is in the form of a roller; the cover puts on at the end; a crank is affixed at the other end, and put on two upright posts, sawed so as to let in the crank at one end, and a small gudgeon in the centre of the cover; it is turned round like a grind-stone. The vast quantity of soil fit for flax in

this province, offers a great inducement to the farmers, to embark in a commodity which is always in demand for the mother country. Great quantities of this article, which is now annually imported into Great Britain from the Baltic, might be furnished in part from hence.

Flax seed should not be sowed more than twice on the same farm. An arpent will yield two hundred weight of flax, and eight minots of seed.

URTICA, OR THE NETTLE.

The nettle has been long known to produce a filament, and is used in various parts of Europe to make cloth. The inhabitants of the Lower Province applied it to making of cloth fifty years ago; it is likely, the first French settlers brought the knowledge of its utility. Fishing nets and small ropes have been made from that material. The Maison Rustique* recommends the nettle for making cloth, but this quality of the nettle has been brought by recent experiments into more notice. It is said to be more durable in water than hemp, which is very probable; being an aquatic

* A French publication on Husbandry.

plant, it is then in its element. The property of the nettle deserves the particular care of farmers; when more certain information may be gathered relative to its durability, it may become an object for exportation. Nettles are to be found on the borders of brooks and beaver meadows, in places called swailes, which lie between high lands, in ash and soft maple swamps, and on most low flooded land, on the sides of rivers and lakes; but chiefly in damp shady places. The length of the stalks depends on the quality of the soil. The leaf resembles that of the beach. At the head of the stem, three branches put forth, and bear a pale straw coloured bloom, in the beginning of September. The seed is small and flat, forming a half circle, and is of a dark brown colour; it hangs from the stem by a fine point, and is easily shed. It is fit to cut when the leaves turn yellow, and must not be pulled, being a perennial. It is assorted as directed for hemp and flax, but it may or may not be rotted. It breaks well when dry, and has the advantage of giving twenty-five per cent. more hemp or staple.

This plant has not yet been cultivated to any extent. It is not certain that it will succeed in the open country. The trials I have made to introduce it in up-land have not been favourable. Swamps

where it grew, being cleared and drained, the growth has disappeared; but as cattle grazed on those lands, and I have discovered they are fond of it, that may be the cause of its destruction. It is to be hoped that trials might be made to introduce its culture; a certain degree of moisture must be retained, that it may approach its natural state.

The seed ripening late, it is often injured by the frost; the best way to form a plantation would be to collect the sets from the places where they grow. The land being prepared the Autumn before, previous to setting, a shallow furrow might be run with the plough, and the sets put at the distances of six inches in the furrow; then one turn to cover, and plant on, until the whole is filled with plants; thus a perpetual plantation could be formed. Seed may be collected in favourable years for its ripening, or sets taken from the old stock to extend its culture.

The land ought to be fenced from cattle, otherwise the grower will be disappointed. It is broken with a flax brake, and when passed through fine heckles, will make as fine cloth as flax, but not so durable.

It offers to the fisheries a superior advantage to any other filament, for nets and lines.

No. IV.

MAIZE, OR INDIAN CORN.

THERE are four species grown in these Provinces: the large yellow and white; the small yellow, called the Nantucket; and the small twelve-rowed: the two latter are best adapted to the climate of the Lower Province. They ripen much earlier than the large. All light soils are fit for corn. The quantity of seed to the arpent is one gallon: the return, when properly tilled, is from 30 to 50 minots. Should the land be rich enough to bear a crop, it is preferable to plant it in drills, at the distance of four feet apart; and the grains of corn, one foot apart in the drills or rows. It requires less labour than the present practice of the Americans, which is as follows:—After the land has been ploughed and harrowed, a furrow is drawn lengthways, at the distance of four feet from each other, after which there are others drawn crossways at the same distance, forming squares or diamonds through the field; at each point there is about a shovel full of rotten dung put in the hole, then four or five grains of corn, and in each third row a few pump-

kin seeds; then it is covered with a light plough about two inches thick. When the corn is six or eight inches high, it must be earthed up a little, and the hills cleared of superfluous plants: three or four are sufficient to stand in a hill for a crop. The ground must be cleared of all weeds; otherwise the corn cannot thrive. It must be gone over again, when it is fifteen inches high, and cleared of all weeds. When it is two feet high, it has its last earthing; and when the corn has bloomed, and the top got a pale straw colour, they should be cut off, at the joint above the cob or ear: they are tied in small bundles, and shocked to dry, and when dry are housed. There are few crops more advantageous than corn. Although in the years 1815 and 1816 it failed by those unfavourable seasons, people should not be discouraged from future trials. It is of great use to eat, when green, either boiled or roasted; when ripe, the meal, mixed with half wheaten flour, makes very good bread. In all new settlements it is made into cakes, and is almost the only bread made use of. It fattens cattle, hogs, and poultry, and is also given to horses; when it has been prepared with lye, which takes off the rind, it is very good in soup. The stalks are eaten by cattle, and the cows give more milk when fed on them, than on hay. After the corn has been gathered, the husks

or leaves must be taken off the grain, otherwise it will mould; when that is done, it must be put on a floor, and turned once a week, until it is dry. In the new settlements they make cribs: those places are formed with logs laid square, about five or six feet high, and ten feet long, and four feet wide, covered at the top like a house; the air passing through, dries the ears without farther trouble.

Plaster of Paris is a good manure for corn; a table-spoonful of powder strewed on each hill, before the first hoeing is performed, has a great effect on light soils.

DWARF FRENCH BEANS.

These beans are cultivated by most of the Canadians. In order to have good crops, the rows should be thirty inches apart, and the beans planted four inches from each other: they grow on almost every soil; but light is the best for them. They require to be kept free from weeds, and must not be earthed up more than two or three inches. The quantity of seed for an arpent of land is three pecks; the produce is from twelve to fifteen minots. They are very good for table use, and are the best thing for fattening sheep, giving more tallow than any other food; they are

also in demand for exportation: the white ones would have a preference for that purpose.

LUCERN.

This artificial grass, a native of Media, has been introduced into this country. It succeeds both upon strong and light soils; but the light is best adapted to its culture. The best method of management is to sow it in drills, thirty inches apart. When the plants are up, they must be thinned, so as to stand a foot distant from each other in the rows. It may be sown broadcast; but, as it requires to be kept clean from weeds, the drill will be found preferable. The seed may be sown in beds in the spring, and transplanted into rows. When that is done, the tap roots are shortened, and the top of the plants cut off about the middle. The quick growth of this grass in the Spring is sufficient to recommend it to the farmers, for feeding their pigs, lambs, and calves. It will be nine inches high, when the other kinds just make their appearance. In favourable years, it may be cut four or five times. A quart of seed is sufficient for an arpent, when drilled; two quarts, when sowed broadcast. The hay made of lucern is managed in the same

manner as clover. No animals should be allowed to graze on it, as they are apt to eat off the head of the plant. One arpent of lucern is equal to four arpents of those grasses now under culture.

No. V.

PLASTER OF PARIS*.

THIS valuable manure, almost unknown, though very easy to be obtained, merits the attention of every farmer; there is scarcely a farm in the Provinces, but it might be applied to with advantage. The practice of nine years on the following soils and crops, may suffice to prove its quality. On a piece of poor yellow loam, I tried three grain crops without success; with the last, which followed a hoe crop, I laid it down with barley: the return was little more than the seed. The grass seed took very well. In the month of May the following year, I strewed

* The farmers in the United States knowing the value of this excellent manure, import vast quantities of it annually from New Brunswick and Nova Scotia, into the different States.

powder of plaster, at the rate of one minot and one peck to the arpent. In July, the piece of land being mowed, the quantity of grass was so great, that it was not possible to find room to dry it on the land where it grew. The produce was five large loads of hay to the arpent. It continued good for five years. A trial was made with plaster on a piece of white clay, laid down with clover and timothy—the grass was very thin. After the plaster was strewed, it improved so much, as to be distinguished from any other part of the field; the sixth year after, the field was broke up in the spring, and sowed with pease: the spot where the plaster had been put, produced twice as much as any other part of the field. The haulm was of a deep green colour, nor were they effected with the drought, like the others on the part of the field where no plaster had been put. A trial was made on a strong loam; the crop, Indian corn, manured in the hills with old stable dung, lime, and plaster: the stable dung surpassed the other two, the Indian corn being finest where that was applied. In the Spring of the following year, the field was ploughed and sowed with pease, where the plaster and lime had been the year before; the pease were as strong again as in any other part of the field. I tried plaster on cabbages and turnips, but did not perceive any good effect. From

the frequent trials of this manure on various soils, it is evident that it is applicable to both strong and light soils, for top dressings of succulent plants.

Method of reducing it.—Take an axe and break the stone to the size of a nut; then take a flat stone, two feet diameter, and break it into powder with a wooden mallet. It must be reduced very fine; those that have an iron pestle and mortar, can pound it expeditiously that way. Should plaster meet its deserved attention, it might give employment to people in the houses of correction, to reduce it to powder, for the use of the farmers, when no other objects of industry present themselves*.

In order to give an idea of the measure of a ton of plaister in stone, it will measure three feet square on the base, and two feet two inches high, English measure. This is cited, in order to assist persons that may wish to buy from the vessels going up the river, where weights cannot be had to weigh. That which is taken from the mine is best, and is of a silver grey colour; that from off the surface is red, and is of less value. A ton will produce fourteen minots of pow-

* Since this was first suggested, this method of employing prisoners has been adopted.

der, when broke; a man can break eighty pounds in one day, in a mortar of six inches diameter, in its natural state. Having a great deal to prepare for the Spring of 1817, I had it broke about the size of a goose egg, and then put into the oven of a double stove; it remained about half an hour, after which a man could reduce two hundred and ten pounds in twelve hours, with a sledge hammer, pounding it on a flat stone. As this is an experiment, time must determine whether the heat diminishes its quality; it does not lose weight by the process. The plaster that was heated, being applied to various crops, had nearly the same effect as that in the crude state.

No VI.

MAPLE SUGAR.

WHERE maple trees are on a farm, a selection might be made of from four to eight hundred, to make sugar; what may not be wanted for the family, will find a ready sale. The spot chosen, the centre is pitched on for the boiling place. This operation begins about the 20th of March, as the snow begins to

melt. When there is no snow or frost in the ground, the sap will not make sugar. A large white wood tree, commonly called Bass-wood, is felled for a back log, to make the fire against; two small trees are cut to get forked pieces to put a bar across; branches are cut for hooks to hang the boilers upon; a large white wood trough is made for a reservoir, to put close to the boilers; small troughs are made of white ash or butter nut, to put at the foot of the trees.

Tapping.—The best method is to bore a hole slantways, with an augur; and when done sugaring, to cork it up with a piece of wood, to prevent the tree exhausting itself; but the generality of people make an incision slantways, with an axe; after which, a hole is struck with a gouge at the lower part of the wound: a thin piece of cedar is put into the hole, made with the two-inch gouge, to conduct the sap to the small trough, which is made to contain a pail-full. Each evening the sap is collected and put into the reservoir. Some people have a puncheon put on a light sleigh to carry the sap; others take it to the reservoir in pails. The number of boilers will depend on the quantity of liquor; iron ones are in general use, perhaps from cheapness. The following morning, twelve pails-full of sap is put on the fire, in

a kettle, which is kept on the boil. Eight pails are put on in another kettle over a gradual fire. As the first evaporates, it is filled up from the second; when this is emptied, the first one is still continued boiling: in about six hours it will be sufficiently reduced, which is known by the juice rising to the top of the kettle. A small piece of fat pork is then thrown in: it will soon rise again, when another piece is added. When it rises the third time, this is repeated, and the syrup is taken off the fire, and strained into a pail. This stands until the next day, when it is put on a slow fire in a small pot, and will take three quarters of an hour to fine down. It is then put into moulds the size of bricks, or earthen vessels, to cool. There are people who use milk instead of pork, to prevent it boiling over.

The quality, quantity, and colour of sugar, depends on the situation; upland trees give the richest sap, and the best colour, yielding one pound of sugar to each pail of sap; low lands give a dark colour, and only yield twelve pounds to twenty pails-full of sap. Frosty nights, succeeded by clear sun-shining days, is the best weather for making sugar.

No. VII.

Instructions to Strangers settling in the Woods or Forests.

IT will sometimes happen, that people lose themselves in the *Woods*. Cloudy weather operates to deceive, but the sun will always direct, by observing its rising and setting from the dwelling place, which Europeans ought strictly to attend to, on their first beginning in the forest. Swamps are the most difficult, from the thickness of the green timber: in such a case, let the person avoid flurrying himself, because fear agitates the mind, and leads to frenzy. If fatigued, sit down and examine the trees: the north side of large trees is covered with moss; the branches are longest on the south and south-east sides: these will form a compass. Birch trees are the compass for the Indians; their strongest branches pointing eastward. Should you fall on a river or brook, its course will lead to some settlement. The brooks, many of which are little rivers in the spring at the melting of the snow, become dry in summer; but their course may be discovered by observing the way that the growth of wild herbs,

grass, and roots of trees lie: their heads will point to the outlet of such waters; the stones will be cleaner on the side next the source, than that next the outlet. These observations are easier understood than heights, falls, &c. &c. Sometimes cattle are met with miles from home; by starting them, they run from a stranger, and generally go home: that will lead the lost person to a settlement. There being little to fear from wild beasts, food is a primary object. As berries are not always to be had any more than nuts, herbs become a consideration. The colts foot, called by the Americans, Snake-root, has a leaf formed like the foot of a colt; it is of a deep green colour; the roots run horizontally, and are of the thickness of a tobacco pipe; they taste like lemon peel. By gathering of that root to eat, a person might exist for some time. This plant produces many lateral roots, it is in greater abundance than most other herbs; it delights in moist situations, and is easy to discover. It is taken as a tea, to remove violent colds, when a little sweetened.

No. VIII.

Rules and Regulations of the Montreal Agricultural Society, as adopted at a General Meeting held at the Court-House, on Monday, October 20, 1817.

1st.—IT is the object of the Society to contribute, by its efforts, to the advancement of the science of agriculture, and to the instruction of the husbandman in this district. To encourage, by the publication of all communications addressed to the society, which may be deemed useful, or by the publication of extracts from approved books on the subject, the employment of the most useful implements of husbandry; the species of cultivation the most productive, and too little disseminated throughout the district; to indicate the disadvantages of some of those that are practised; to excite emulation, and to recompense or reward industry, by the distribution of prizes in money, or in agricultural instruments, or by honourable distinctions, granted under certain conditions, to persons who shall have excelled in the cultivation of the produce of the earth, or in the

rearing of animals, or in the manner of executing some of the multiplied and various labours of their profession.

2d.—The Agricultural Society of the district of Montreal, comprises two classes of members; the one ordinary, and the other honorary and corresponding members.

3d.—Those who have already subscribed, or may subscribe, previous to the first of January next, to the association proposed at the general meeting of the 19th of September last, and those who may hereafter be admitted, in manner herein after provided, are the ordinary members of the society.

4th.—The direction of the concerns and interests of the society, is placed under the superintendance of one president and two vice-presidents, a treasurer, and twelve directors, all ordinary members of the society, forming a permanent committee of sixteen; six of whom, the president, or one of the vice-presidents, included, are competent to proceed to business.

5th.—The president, and in his absence, either of the vice-presidents, shall preside at the sittings of the permanent committees, and at general meetings; there to put to the vote, after discussion, all written proposals offered by any of the members present. All questions shall be decided by the majority of the

members present, and in case of an equal division, the person who presides, shall have a casting vote.

6th.—The officers and members of the permanent committee, elected this year, shall remain in office until the third Monday in January 1819. There shall be four general meetings of the society, viz. on the third Mondays of January, April, July, and October, or on the following day, if it should be a holiday. The election of members, to compose the permanent committee, shall be by a plurality of votes at the general meeting of January, and four at least of the members of the committee who have served during the last year, shall be re-elected.

7th.—The general meetings admit or reject such persons as are presented, to become either ordinary, honorary, or corresponding members of the society; receive the reports of the permanent committee, and deliberate and decide as well on these reports, as on all other written propositions, made by any of the members present.

8th.—The permanent committee is to meet on the first Monday of every month, or on the next day, if it should be a holiday, or oftener, by adjournment, if necessary. It shall be its duty to prepare and publish a monthly agricultural report of the state of this district. It shall examine, and give its opinion

to the society, of the merits of such written communications, as may or shall be addressed to it; revise and order the impression of all writings on agricultural subjects, which it shall deem necessary to publish; regulate in what shall consist the annual prizes which the society shall distribute, for what object, and on what conditions they are granted; decide on the pretensions of the candidates who claim them; and, generally, regulate all matters relative to the institution.

9th.—In order the more effectually to promote the views of the society, each of its ordinary members shall, on his admission, pay to the treasurer five dollars, and the like sum annually, previous to the general meeting of April; at which the treasurer shall report the names of such members as may have neglected to pay their subscriptions; and in all such cases, their right of deliberating in the committee, if they should be members of it, or at general meetings, shall be suspended until they shall have paid; and in case of a failure of making the second payment, the following year, the treasurer shall report the same at the general meeting, which may expel him.

10th.—After the 1st of January next, whenever any person wishes to become a member of the society, the following rule is to be observed. A proposal

signed by two members, recommending the candidate as a fit person, stating his name, profession, and place of residence, is read at a general meeting. The proposition is put to the vote at the ensuing general meeting, and the candidate is admitted, if two-thirds of the members present vote in his favour*.

11th.—Persons residing out of the district, who shall have made communications to the society, which the committee shall have judged important and useful, and of which it shall have made a favourable report, may be proposed at a general meeting as honorary and corresponding members, and may be elected as such at the ensuing general meeting, if two-thirds of the members present at such meetings vote for them; and may assist at all general meetings, without paying the annual subscription, but without voting there, or having admission to its library.

12th.—Every member of the society is bound to purchase a copy of such tracts as it may publish, and a copy thereof shall be addressed to him by the treasurer, to whom he shall pay the cost thereof, under the penalty imposed by the ninth article.

13th.—One of the first duties incumbent on the officers and directors elect, shall be to publish the

* The effect of this 10th article was suspended till July 19, 1818.

rules and regulations of the society, to address circular letters to the curates, to the seigneures, and principal land-holders, and merchants, of the different parishes of this district, to induce them to second the efforts, and promote the views of the society.

The following persons were, at the said general meeting, elected to serve as officers and directors, until the 3d Monday in January 1819, in conformity to the foregoing rules and regulations.

PRESIDENT

The Hon. James Monk, Esq. Chief Justice.

VICE-PRESIDENTS.

J. L. Papineau, Esq. || William Hallowell, Esq.

TREASURER.—Horatio Gates, Esq.

DIRECTORS.

John Gray, Esq.	Joseph Perrault, Esq.
Austin Cuvillier, Esq.	David Stansfeld, Esq.
Samuel Sherwood, Esq.	Charles F. Grece, Esq.
George Platt, Esq.	Frederick Pursh, Esq.
Toussaint Pothier, Esq.	George Clarke, Esq.
Thomas Porteous, Esq.	Henry Griffin, Esq. Sec.

No. IX.

The following Table of Imports and Exports at the Port of Quebec, for the year 1818, *will convey to the Reader an accurate view of the present state of commerce in these Provinces. The details are extracted from the Montreal Gazette, of January* 20, 1819, *and I make no apology for the insertion of a document in every point of view so important.*

IMPORTS.

AT QUEBEC.

Cleared 588 Vessels, 90418 Tons, 4048 Men.

35 Pipes ..... Madeira wine.
38 Hogsheads ..... ditto.
40 Quarter casks .. ditto.
1 Hamper ..... ditto.
[6536 gallons.
67 Pipes ..... Port.
1 Hogshead ..... ditto.
39 Casks and cases ditto.
[9291 gallons.
235 Pipes ..... Teneriffe.
200 Hogsheads ..... ditto.
299 Quarter Casks .. ditto.
5 Casks and cases ditto.
51 Demijohns ..... ditto.
[52175 gallons.
59 Pipes ..... Fayal.
2 Hogsheads ..... ditto
[5049 gallons.
9 Butts ..... Spanish wine.
688 Pipes ..... ditto.
217 Hogsheads ..... ditto.
101 Quarter casks .. ditto.
[90766 gallons.
49 Pipes ..... Sicilian.
[5352 gallons.
3 Casks bottled Sherry.
[30 gallons.
30 Pipes ..... Marcilla.
1 Hogshead ..... ditto.
[3290 gallons.
220 Hogsheads ..... French.
193 Casks and cases ditto.
[12323 gallons.
3 Hogsheads ..... Mountain.
[165 gallons.
624 Casks ..... Brandy.
1 Box ..... ditto.
[75822 gallons.
485 Puncheons ..... Gin.
8 Boxes ..... ditto.
[68064 gallons
8 Puncheons ..... Arrack.
[869 gallons.
42 Puncheons ..... Whiskey.
1 Cask ..... ditto.
1 Case ..... ditto.
[4496 gallons.

9009 Puncheons ..... Rum.
176 Hogsheads ..... ditto.
2 Puncheons ..... Shrub.
[954236 gallons.
362 Casks ..... Molasses.
[33977 gallons.
329 Casks ..... Refined sugar.
[247711 lbs.
797 Casks ..... Muscovado sugar.
319 Bags & boxes ditto.
[719770 lbs.
111 Casks ..... Coffee.
2 Bags ..... ditto.
[50778 lbs.
187 Casks ..... Leaf tobacco.
2 Boxes ..... ditto.
[211575 lbs.
2 Casks and cases manuf. ditto.
[663 lbs.
1 Case ..... Snuff
[74 lbs.
11324 Packs playing cards
139242 Minots salt.
210 Chests Hyson tea.—13085 lbs.
4184 ditto Green, &c.—314933 lbs.
15 ditto Behea.—1990 lbs.

N. B.—3 per cent. has been deducted from all the above articles, except the playing cards.

Value of merchandise paying 2½ *per cent.*
£772373 : 14 : 6.

AT GASPIE.

33 Puncheons ..... Rum.
[3784 gallons.
38 Ditto ..... Molasses.
[3903 gallons.
1 Quarter cask ... Spirits of wine.
[30 gallons.
5 Casks coffee, 652 lbs.
10 Do. Muscovado sugar, 15909 lbs.
1 Do. leaf tobacco, 699 lbs.
3 Do. manufac. do. 215 lbs.
5 Chests green tea, 421 lbs.

N. B.—3 per cent. has been deducted from the above articles.

43890 Minots salt, duty free.

Value of merchandise paying 2½ *per cent.*
£2661 : 7 : 11 currency.

AT NEW-CARLISLE.

24 Puncheons ..... Rum. [2554 gallons.
12 Ditto ..... Molasses. [1192 gallons.
1 Cask coffee, 20 lbs.
10 Do. Muscovado sugar, 10450 lbs.
2 Do. leaf tobacco, 1693 lbs.
1 Do. manufac. do. 75 lbs.
5 Chests green tea, 376 lbs.
1 Do. Bohea, 101 lbs.

N. B.—3 per cent. has been deducted from the above articles.

272 Tons ..... Salt, duty free.
2200 Bushels .. ditto

Value of merchandise paying 2½ per cent. £4654 : 10 : 0.

EXPORTS.

FROM QUEBEC.

Cleared 409 vessels, 94675 tons, 4343 men.
Four built this year, 749 tons.

721 Pieces, masts and bowsprits.
3062 ..... spars.
6997 ..... oak timber.
33736 ..... pine ditto.
722 ..... Walnut, &c.
22 ..... round wood
1865831 ..... staves and heads.
39084 ..... stave ends.
642160 ..... boards and planks
38762 ..... deal ends.
524 ..... battens.
12728 ..... handspikes.
24709 ..... oars.
79810 ..... hoops.
120 ..... boat-hook handles.
70 ..... stauncheons.
529 ..... scantlings.
733 Feet.... ditto.
5800 Pieces, shingles.
581 Puncheons staves packs.
76 Hogsheads ditto.
594 Tierces .... ditto.
50 Empty casks.
44353 Pieces, lathwood.
840 ..... wedges.
82 ..... capstain bars.
24251 Casks ashes. [94579 cwts. 3 qrs. 5 lbs.
401791 Bushels wheat.
12967 ..... barley.
49637 ..... pease.
50 ..... beans.
6049 Bushels oats.
364 ..... Indian corn.
110 ..... mustard seed.
16164 ..... flax seed.
2 Barrels Indian meal.
30543 ..... flour.
8461¼ Cwt. biscuit.
270 Tierces beef.
321 Barrels ditto.
397 ..... pork.
124 Firkins and kegs lard.
953 Litto butter.
6 Casks hams.
2 Barrels tongues.
1480 Casks cod fish.
205 Boxes ditto.
1058 Cwts. ditto.
535 Tierces salmon.
218 Barrels ditto.
22 Loose ditto.
456 Barrels herrings.
8 Kegs ditto.
175 Boxes ditto.
9 Barrels mackrel.
2 ..... cod sounds
18 ..... cider.
2 Puncheons ale and beer.
3 Hogsheads ditto.
12 ..... essence of spruce.
79 Barrels .... ditto.
45 Kegs ..... ditto.
19 Cases ..... ditto.
72 Bottles .... ditto.
1 Box liqueurs.
2 Barrels cheese.
6 Ham ditto.
52 Boxes candles.
8 ..... soap.
420 Casks oil.
8 ..... can balsam.
7 Bags hops.
526 Barrels apples.
56 Boxes ditto.
137 Barrels onions.
16 Puncheons cranberries.
1 Hogshead ditto.
147 Barrels ... ditto.
70 Kegs ..... ditto.
1 Jar ..... ditto.
2310 Bushels potatoes.
9 ..... turnips
10 Casks bran.
24 Tons linseed cake.
56 Bags ditto.
35 Cases trees and plants.
1 Barrel seeds.
2 Casks pyrola umbellata.
9 Cases ditto.
4 Puncheons capillaire.
2 Casks ..... ditto
2 Casks sarsaparilla.
3 Barrels nuts.

1 Cask ginsing.
1 Box honey.
2 Barrels feathers.
5 Bales wool.
1 Hogshead hemp.
9 Boxes eggs.
17 Kegs snuff.
9748 Ox horns.
7 Casks lime.
2 ..... bees wax.
3 Puncheons hemlock bark.
96 Stoves.
91 Horses.
9 Sheep.
2 Bark canoes.

FURS AND PELTRIES.

3079 Fox skins.
33543 Martin ditto.
3760 Bear and cub.
57432 Beaver.
27897 Muskrat.
9318 Otter.
41654 Deer.
2036 Wolf.
3 Marmottes
4557 Hare.
118 Seal.
20 Squirrel.
8523 Minx.
3872 Fitcher.
15225 Raccoon.
3776 Cased and open cat.
365 Wolverines.
111 Lynx.
7 Buffalo robes.
310 Swan.
44 Badgers.
2 Loupserviers.
5 Ground hogs.
16 Casks castorum.
1 Keg ditto
1 Case ditto

SUNDRY IMPORTED GOODS, EXPORTED.

93 Tierces salt.
3465 Minots ditto.
10 Casks ..... tobacco.
15 Kegs ..... ditto.
17 Rolls ..... ditto.
125 lbs. ..... ditto.
2 Pipes ..... wine.
14 Hogsheads .... ditto.
5 Barrels ..... ditto.
13 Cases ..... ditto.
18 Puncheons ..... rum.
3 Casks ..... ditto.
11 Ditto ..... molasses.
3 Chests tea.
7 Casks sugar.
1 Barrel ..... coffee.
1 Cask ..... ditto.
17 Bags cocoa.
1 Cask Cayenne pepper.
48 Tons ..... iron.
10 Cwt. ..... ditto.
12 Pieces ..... ditto.
1 Ton ..... old copper.
1 Puncheon ..... ditto.
11 Casks ..... ditto.
5 Barrels pitch and tar.
7 Coils ..... cordage.
1 Cwt. ..... ditto.
1 Cask ..... twine.
324 lbs. ..... ditto.
6 Casks ..... nails.
6 Kegs ..... ditto.
21 Bundles steel.
3 Boxes axes.
1 Ditto scythes.
7 Chaldrons coals.
2 Grindstones.
200 Bricks.
808 Empty bags.
178 Packages merchandise.

To King's Post, for hunting.

7 Cases guns.
1 Cask flints.
21 Barrels ..... gunpowder.
560 lbs. ..... ditto.
75 Cases ..... shot.
11 Cwt. ..... ditto.

FROM GASPIE.

Cleared 13 vessels, 1280 tons, 102 men.

13089 Cwt. cod fish.
18 Barrels cod sounds
33 ..... roes.
53 ..... herrings.
3 ..... salmon.
2 Tons ..... oil.
51 Barrels ..... ditto.
100 Empty casks. 14 Oars.

FROM NEW-CARLISLE.

Cleared 16 vessels, 2019 tons, and 109 men.

17253 Cwt. cod fish.
336 Barrels herrings.
112 ..... salmon
5930 Gallons oil.
100 Spars.
855 Tons pine timber.
30 Cords lathwood.

Imports and Exports at the Port of St. John's, on the Richelieu River, leading to Lake Champlain, in the United States, for the Quarter ending October 5, 1818.

IMPORTS.

400 Barrels potash.
632 ..... flour.
29 ..... tar.
17 Hogsheads treenels.
3 Kegs pickles.
99 Bushels corn.
19 ..... potatoes.
55 ..... beans.
227 ..... apples.
3½ ..... nuts.
20181 Pounds leaf tobacco.
33858 ..... butter.
32650 ..... cheese.
190 ..... honey.
190 ..... feathers.
4133 ..... deer skins.
100 ..... wool.
313400 Feet pine boards.
743530 ..... plank.
7100 ..... timber.
2000 ..... lath boards.
11000 ..... bass wood ditto.
22500 Shingles. 1 Spar.
400 Pine slabs.
6 Saw Logs.
129 Cords small boat wood.
116 Head of cattle.
293 Sheep.
90 Pigs.
2 Calves.
1 Horse.
400 Water melons.

*L.*68,375 specie.

EXPORTS.

11819 Bushels salt.
1165 Gallons rum.
64 ..... wine.
123 ..... oil.
12600 Pounds dry cod fish.
17 Barrels salmon.
17 ..... tar.
249 Tons plaster.
2 Horses.

*L.*110,537 : 10 : 0 specie.
*L.*957 : 13 : 0 merchandise valued.

Imports and Exports at ditto, for the Quarter ending January 5, 1819.

IMPORTS.

943 Barrels potash.
16½ ..... apples.
4 ..... rosin.
45777 Pounds cheese.
25595 ..... butter.
20400 ..... tallow.
7217 ..... hops.
6000 ..... fresh cod fish.
90 ..... honey.
375 Bushels apples.
111½ ..... nuts.
28 ..... corn.
8 ..... clams.
84000 Feet pine boards.
18000 ..... planks.
57000 Shingles.
400 Oars.
25 Gallons oysters.
896 Hogs.
180 Head of cattle.
151 Sheep.
1663 Deer skins.
2573 Bear ditto.
1000 Martin ditto.
3 Wolf ditto.
34 Boxes garden seeds.
4 Bags ditto.

*L.*57,375 specie.

EXPORTS.

2415½ Bushels salt.
13 ..... wheat.
604 Gallons rum.
840 Pounds dry cod fish.
75½ Barrels salmon.
5 ..... flour.

*L.*49,875 specie.
*L.*857 : 15 : 0 merchandise valued.

☞ *Population of Quebec.* — By a late census it appears, that the city of Quebec contains 2,008 houses, and 15,257 inhabitants. — Of these, 11,991 are Catholics, and 3,266 Protestants.

GENERAL INDEX.

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FINIS.

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