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# The Farmer's Journal,

—AND—

TRANSACTIONS OF THE LOWER CANADA BOARD OF AGRICULTURE.

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**April 1858.**

PUBLISHED UNDER THE DIRECTION OF MR. J. PERRAULT,  
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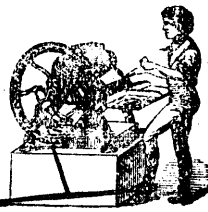
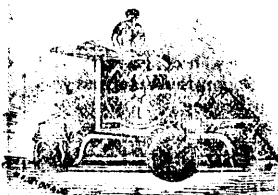
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# The Farmer's Journal.

MONTREAL, APRIL 1858.

## Visit at Tiptree-Hall.

If there is in England, a farm whose creation is a wonder, it is certainly that of Mr. Mecki, at Tiptree-Hall, near Kelvedon. This farm, universally known in the agricultural world, is justly celebrated for its whole, whether as constructions, the rendering of lands wholesome, or distribution of manures.

Let us say first that the farm of Tiptree was fifteen years ago but a waste land, the impermeable, and wet soil of which produced nothing but heath. Mr. Mecki, rich esquire of London, selected that piece of land, because he was desirous to prove to the agricultural class that with capital and intelligence, there is no soil, however ungrateful it may be, which cannot become a fertile land giving to the farmer the greatest known yield.

Now the facts have justified the calculations of Mr. Mecki, who may now proudly show the results obtained on his farm, as a proof of his assertions. The finest fields often border the unproductive land, and form abundant wheat crop, to the waste land, there is only the space occupied by the quickset edge which separates them.

Mr. Mecki, when he first cultivated his property, understood that he should first improve the soil. Is it not in the soil that manures are decomposed? that plants spread their fibres to draw the elements of their nutrition? Lands had then to be drained, to take away the surplus water. The water which brings to the plants the substances which feed them, becomes a poison for them

when it cannot flow off and is consequently stagnant. This operation of rendering the lands wholesome is the first of all the operations to be made by the farmer who has a strong clay soil.

When the drainage, the rendering of lands wholesome (by means of tiles) was ended, Mr. Mecki applied lime to his soil. This lime which would have produced no effect on a wet land, because in contact with water it would have made a useless mortar, produced on the same land *rendered wholesome* a wonderful effect.

We know that strong clay land have many defects. They are difficult to be worked, heavy at the time of ploughing which are well made only when the soil is wet enough and not too much so. In summer they harden, crack and break the roots of the plants &c. &c., but especially the manures applied to clay lands, have but little effect on the crops. Clay has the property of retaining the necessary substances to vegetation. Lime has the advantage of diminishing to a great extent these defects. It makes the soil more easy to be tilled, but especially it facilitates the decomposition of manures which can no longer be retained by the clay.

Mr. Mecki entirely changed his soil, first by drainage, and afterwards by the application of lime. Then the strong manures applied made the rest, and the soil became by degrees what they are now, that is excessively fertile and yielding the highest products to be had in England. While his land was improving and wanting manure, Mr. Mecki built his farm buildings which now offer a perfect whole. The thrashing machine is moved by steam which also moves root slicers, straw cutters, pounders, millstones. The straw is stored in a loft above the fattening cattle, and the greatest quantity of it is used as litter; it is so for all the other fodder

stores which are always near the cattle which are likely to eat the greatest quantity of them. Transports are thus avoided, and with them an economy of time and fodders lost on the way is realized. It is impossible for us to give a description of the farm buildings which plans only could explain.

After having realized such a fine plan of culture, Mr. Mecki, who had benefited English agriculture, was justly deserving general gratitude, but he did not want to stand there. The *System of liquid manure* was then spoken of, he was one of the first to apply it on his farm.

This system consists in taking down all the water, of the manure heaps in a great cistern. And when the liquid has fermented and is properly diluted with water, it is driven back, by means of pumps, in underground pipes, which open in the middle of each field. We thus water well with manure water or liquid manure everytime crops want it. This system realizes all we can desire for the cultivation of field productions.

With the present system, generally practised, manures which, to feed plants, must be decomposed, dissolved in water, and absorbed by the plant, are applied. What assures us that the decomposition of manure will take place when vegetation will have the greatest want of it? Is it not to be feared on the contrary that a great drought will stop that decomposition; or that an abundant rain, will wash the manure from the substances which should feed the plants, and carry them down to some stream in the neighbourhood? With the system of liquid manures, there are none of these losses. The farmer may proportion the manures to the wants of the plants; he may to a certain extent follow them during all the stages of their vegetation and supply them with manure according

to their wants. Every application has a sure and instantaneous effect; consequently a recent seedbed will not suffer by an unseasonable drought, when it will be sufficient to open a cock to cool and fertilize the soil.

Mr. Lecouteux, in his excellent work entitled "*Principes économiques de la culture améliorante,*" makes the following remarks: Manures can only be applied before the sowing of the land: liquid manures, and it is one of their great advantages can be distributed to certain plants, when they are in the first stages of vegetation. The importance of this result is easily understood; it is with plants, every one knows it, as with all organized beings; the vigour of the first age is one of the best securities of their future vigour. In this state of solubility, manures are a *ready elaborated food, all ready* to vegetable assimilation. Transformed immediately in crops, they then represent a capital, essentially active and circulating. By them agricultural production resembles manufacturing production, which owes to a great extent its greatest benefits, to investments of funds for a short time, to more frequent receipts, to operations more frequently repeated in the same year.

This is the point agriculture has arrived to! This national industry formerly abandoned to the weakest, most ignorant and less intelligent men in a nation, has justly conquered the position which it deserved by its influence on the prosperity or ruin of nations! History had learned this influence to us, when the disasters which followed the disease of potatoes in Ireland gave so terrible a proof of it. Since that time, this truth was universally recognized by all and even by the throne, when Napoléon III wrote it in clear and precise terms, with the talent known to him: *Improvements of agriculture, he said, should be the object of our constant*

solicitude; for on its improvement or decline depends the prosperity or decay of empires."

This word of the greatest man of the day should leave no doubt on the new way agriculture is entered into. And nevertheless how many of our readers consider agricultural innovations as mere dreams which realize but losses, and which practise alone will prove to be right. For these we would vainly give the most complete details on new cultures, the use of new implements, we should never persuade them. Applications on the ground are necessary for this class of our farmers, essentially acting by routine (and it is the most numerous,) therefore, in visiting Mr. Mecki's farm, which constitutes a model of applications of the most recent methods, we were eagerly wishing for a similar school freely opened to our farmers. For them the facts alone are or should be in the right; but yet for them to profit by these facts they must see them, gather them themselves, and in some way lay their hand upon them. They will consent to adopt a culture only when they will have witnessed its results. Therefore a farm uniting all the possible cultures at home, constructions adapted to the climate, forming a whole supported by proof, would be for our agriculture a precious model, which every one would at once apply and adapt especially to each locality.

Mr. Mecki well understood it, in opening his farm to the numerous visitors he receives every day. All, in their visits have learned something they availed themselves of when they were back on their farm.

Mr. Mecki has rendered an eminent service to English agriculture, in making at a great expense, an application of the most recent methods, and aiding to their adoption amongst English farmers who are justly indebted to him.

We cannot well conceive the levi-

ty, not to say more, with which the "*Journal d'Agriculture Pratique*," has recently appreciated Mr. Mecki and his culture. The manner in which this journal sends back Mr. Mecki to his manufacture of needles and razors does not become the serious character generally given to it by the articles of MM. Gasparin, De Lavergne, Lecouteux &c. It is at least vexatious for a man, after 15 years of studies and hard labour made for a useful object, to be exposed to mean attacks, the cause of which it would be easy to describe.

Let us hope that Mr. Mecki will notwithstanding find imitators, and that Canada will soon have a certain number of farms, truly models for our agriculture.

J. PERRAULT.

### Manures.

Agriculture is the art of obtaining from the soil the greatest clear benefit, in maintaining its fertility. The fertility of a farm will then be maintained in giving back, under the form of manure, the elements drawn out of it under the form of crops; it is now a universally admitted and unquestionable principle. This manure seems to be of different kinds, but for us, farm manures (dungs) are the only manures we can economically produce.

Our long winters which oblige us to a stabulation of six months, oblige us to know well how to manage the animal dejections of our stables, so as to lose nothing of their fertilizing qualities.

And yet how few farmers are unblameable under that point of view. Most of them put out the manures every two or three days, and spread them carelessly before the farm buildings, where they pass the winter exposed to all the stormy weather of the spring; the melting of the snow increases the injury, by carry-

ing down to the drains the gaps of the heap, which are the richest and most fertilizing parts of the manure.

Farmers in general must necessarily not know what takes place during the decomposition of manures; for it cannot be supposed that they would knowingly suffer so important losses, when it is so easy to avoid them, with a little good will.

At home the management of manures must be quite special according to our climate. We want in the spring manures half decomposed which, ploughed in the soil, may answer to the wants of a crop the stages of vegetation whose must be produced in the space of three or four months. Then, to obtain in winter these half decomposed manures, what is to be done? Will we employ the system of "platform" which consists in putting out every day the manures of cow, horse stables, etc., and regularly spreading them by successive layers so as to form a heap of six or seven feet high. This system is no doubt excellent for the manures, which managed in that way at the farm of Grignon, have been taken as type of farm manures by M. Boussingault, for their richness established by chemical analysis. Only a few hours of snow and the usual temperature of our winters will prevent the fermentation. The system of trenches offers the same inconveniences.

We must therefore look for means of managing the manures uncovered and at a temperature which will allow fermentation, in order that in the spring our manures will be ready to be ploughed in. The means is to keep the dung under the cattle a month or six weeks—the necessary time for its decomposition, and then, cart it to the field which is to receive it. This method is, in our opinion, the only economically applicable at home, and we have no doubt the future will justify our opinion.

The advantages of this management of manures are numerous, and we will show some of them: the only cost of the establishment consists in the digging of a trench of two feet deep, along the building straw is spread and the cattle are stalled; every day litter is added and cattle are raised up by their dejections as they increase.

We have seen at M. Decrombecque, of Arras, one of the most renowned agriculturists, in France, 400 fattening cattle, under that system; the horses tables are kept under the same system, and horses do not suffer at all. We have been through these stables dry shod and on a fresh litter, while at six inches below straws were saturated with the dejections of cattle. We did not notice the least deperdition under the form of gas. We have been able to see manures of three months taken to be carried to the field, and we must say that we have seen no where else manures in better state of decomposition, to supply the wants of a crop.

And how could it be otherwise? Here straws receive all the dejections of cattle which they are impregnated, and we have not to fear that urines should be lost, the trench retaining them. This is one of the advantages platforms have not, heaped manure, to be good, must be watered often, but the liquid filters at once through the heap and the wattering must be renewed; it is then an economy of labour to leave manure in a trench where it is continually imbibed with the richest liquids for the fertilization of lands.

But the principal point we insist upon, is the possibility of fermentation, possibility which is realized by the method of leaving the dung under the cattle only.

A light heat soon comes out, and the stable is artificially warmed, with no expense for the farmer; moreover, this heat is one of the essential agents

of this fermentation, which, thus hastened, increases, and the decomposition of straws is rapid. When the trench is full, at six inches below the surface will be found a well made manure; we will then cart it, in a fine day, to the field which is to receive it, as M. Osseine recommends to do, and a heap which will stand to the spring will be made, then it will be spread on as soon as wanted its state of decomposition allowing so to do.

Let our farmers follow this method and we will have no more the right to reproach them with their general carelessness for all what is manure. They will have adopted a fabrication of manures which both theory and practice, have found to be good.

J. PERRAULT.

### Veterinary School at Home.

We extract with pleasure, and, as if it were our own idea, the following article from the January number, 1858, of the *Canadian Agriculturist* published at Toronto. We are happy to see that idea expressed, because when we received this number of the journal, we were making a work of the same kind to be sent to the ministry for their consideration, and to become the object of a special proposition to parliament. Desirous of acknowledging worthily the kind reception given to us by the Canadian population in general and of Montreal in particular, we wish to satisfy the public that we are more desirous of contributing to an important improvement, than jealous of a vain and frivolous priority. We will therefore leave for the present our own work, which we will publish after this one, to submit the following judicious observations to our readers:

"In the midst of our political and party turmoil, it is pleasant to note the progress of Canada in agricul-

tural improvement, and I hesitate not to ascribe a very considerable portion of the happy results of this progress to your literary labours.

"In a young country, agriculture must necessarily have much to learn but it is some encouragement to reflect that our farmers are tolerably untaught with hereditary prejudices, and are, for the most part, reasonably disposed to go *a-head*, when they think it is in a right direction.

"I have no intention, at present of entering upon the *mare magnum* of arable husbandry, but will content myself with offering a few remarks upon the Live Stock department, more especially when labouring under the consequences of accident or disease. No man knows better than you, or more highly appreciates the praiseworthy and successful efforts of such men as Stone, Wade, and their confreres, in improving our cattle; and when I look at the *grade* productions upon my own farm, the dams being common low-priced cows, and remember that I have sent out some forty or fifty thorough-bred Durham bulls to various parts of the Province; I am not over sanguine in assuming a considerable improvement in the common herds of the country. One rule should be *rigidly* adhered to; in fact should be considered as a law of the *Medes and Persians*—upon no account to make use of any other than a pure Durham bull, with an unexceptionable pedigree both in *stire* and *dam*. This rule ought to be applied to all breeds, *Durhams, Devons, &c.*, and will be relaxed of course, as regards the female according to circumstances. When a bull of a totally different, or of a *mixed* breed, is used, no breeder can have any certainty whatever, of what the produce may be. I saw a cow in the herd of the late M. Bates, which exhibited some points, certainly not to have been looked for in his herd. M. B. was perfectly aware of the ble-



ish, and told me it was clearly deducible from what he called the *alloy* on the Galloway blood, at one time infused, by the Messrs. Collings, into their well known herd. It had descended through, probably thirty generations.

"Our cattle have, in time past, been miserably neglected; even as regards the ordinary provision of food and shelter; under accident or disease, their treatment has been barbarous and disgraceful in the extreme. The establishment and distribution of well-educated men, as veterinary practitioners, throughout the Province, is a boon breeders cannot too highly appreciate, and which I verily believe, requires little more than organisation to attain.

"It is no long period since Scotland was quite as destitute in this respect as Canada is now, and Scotland can now boast of a veterinary school, probably unrivalled in Britain attended by young men from all parts of the world; issuing diplomas which are accepted at the Horse Guards, and supplying scientifically educated blacksmiths to all parts of the country. It may be asked, "How did this happy result come about?" Truly we may say "*ex parvula scintilla, &c.*" The late Dr. Barclay, of Edinburgh, so well known as a teacher of comparative anatomy, had an excellent habit, after lecture, of discussing the subject day by day, with his students, of whom the writer was one. A large proportion of his students were classically educated young men, then preparing to take their medical degree, and who rather winced under the shrewdness and intelligence displayed at such times, by a young man (William Dick) attending the class. This young man, in a modest and unpretending manner often put them to the blush, and at last led them to ask the Doctor if he knew who the young man was, upon whom he daily lav-

ished his commendations. The doctor having declared that he knew nothing about him, was quickly told that he was a common, working blacksmith. "Well, well," says the doctor, "all I can say is, that *whether he be blacksmith or whitesmith, he's the cleverest chap among you.*"

"Dr. B. and the writer, being both at the time, Directors of the Highland Society of Scotland, induced the Board to interest themselves, and the veterinary school was soon established. Various parishes sent up young men for education, who found an engagement for their spare hours at Mr. Dick's, or other forges in town. The medical professors and lecturers supplied them with free tickets to their classes, and what was perhaps of at least equal benefit, attended most anxiously at the examinations, when diplomas and certificates were to be issued to the students who were found to merit such distinctions. Truly, these examinations were no sham; often has the writer, in company with many others, marvelled at the acquirements which raw country lads had made.

The Edinburg Veterinary School has prospered, and has become a sort of University, having a regular staff of professors and Demonstrators all highly qualified men, and one who by dividing the curriculum, essentially facilitate and expedite the progress of the students. M. Dick, of course, continues at the head of the Institution, and had, indeed, much reason to be satisfied with the fruits of his talent and labours. M. D. has many good qualities as a teacher, none more remarkable than his power of attaching and inspiring the students. Many are the consultations and communications which reach him from the young men, when established in their homes. Of these, many were painfully, though ludicrously, illustrative of the low ebb of veterinary knowledge

around them. Perhaps, one or two examples may be acceptable. One pupil writes:—"I was lately called to a poor ox, labouring under hopeless constipation. I at once pronounced the case to be desperate, and took my leave. The owner, loth to lose his ox, called in the old farrier or leech of the district. A cure was now *confidently promised*. A lively trout (*risum teneatis*) was taken from an adjoining stream and committed to the gullet of the patient, under the assurance that it would soon work its way through all impediments, and speedy relief be afforded. Of course nothing more was seen of the trout; the poor ox died, and the *Edinburgh doctor* received all the credit of the failure, from his *previous* mismanagement of the case."

"Another student writes: "A few days after my arrival at home, I was sent for, in violent haste, to attend a three year old colt, which had been castrated about six hours before. The artery was bleeding in full stream, the stall deluged with blood, and the owner and family all looking as pale as if the case had been desperate. The animal had been several times cast and fired, and the cord so shortened, as to be, with some difficulty, brought outside of the scrotum. The operation had completely failed. I had the colt thrown again, and told them there was no danger, and that all would soon be right. The only answer I got was, "Nothing frightens you doctors, there can be no chance of recovery." I seized the cord without difficulty, and guided by my acquaintance with the anatomy of the parts, I caught the artery with the forceps, applied the ligature stopped the bleeding, astonished the neighbours, who had crowded in to see the poor beast die, and went away loaded with blessings, for the simplicity and success of the operation."

"I know not whether the breeders

and farmers of Canada will feel as zealous as I do upon the subject. Petitions for aid and advice should flow in from all agricultural societies to the Bureau and Board of Agriculture. The thing *may* be very easily done and in a few years every part of Canada may possess intelligent and well educated veterinarians and men who will shoe our horses in a proper way.

"The school may in some way be controlled by the Bureau and Board, and perhaps form a rider to the agricultural class. I am not sure also, in such a Province as Canada, whether medical men, who must expect in many cases to be established in rural districts, would not find veterinary science of some importance, and whether they might not find that a successful treatment of a valuable mare or a prize cow, might not prove as valuable an introduction to a farmer, as the best they could do for any biped in the household.

"If you approve of this suggestion, I trust you will forward its accomplishment by all the means in your power. There can be no doubt, that it would prove equally useful and creditable to Canada.

"I observe that our neighbours in the States are engaged with a similar enterprize, and I only wonder with their splendid horses, herds, and flocks, that they have not sooner carried it into operation. Pray excuse my trespass upon your time and business.

Yours truly,

ADAM FERGUSSON.

Woodhill, December, 1857.

I now subjoin my views, embodied in a short memorial, addressed by me to the Honble. L. V. Sicotte, Minister of Crown Lands, who was kind enough to allow me to place these considerations under his high patronage, and who has promised me to

take the means of realizing this object.

Honorable Sir,

Amongst the elements which constitute the public wealth, particularly in an essentially farming country, domestic animals are to be counted. They are not only a valuable instrument for field labours, but they are also an important source of revenues for the farm, at the same time representing a considerable capital, of an expensive and frail nature.

Amongst domestic animals, in Canada as elsewhere, more than elsewhere perhaps, the horse keeps the first rank. Will I recall to your mind, Hon. Sir, all the universally valued importance of this noble and valiant servant? I do not think it necessary, I promised to be short, and not to abuse of the moments you are kind enough to devote to the consideration of my work, I will therefore at once enter into the merits of the case.

However some general considerations closely connected with the question, from which in fact it originates, find their place here. They are the following:

Horse breeding in Canada is practised on a large scale; Canadians are fond of horses; they keep as many as they can; often more than their income or their farms allow them to do, too often horses occupy the place belonging to horned cattle, generally too much neglected, and whose breeding deserves a special and continued encouragement. Foals, which are remarkable by the quickness of their pace, as well as by their strong and correct if not always elegant conformation, are sold at high prices on the markets of the United States. From all parts of the Northern and Western States, when the country is not afflicted with commercial stagnation dealers flock into the towns and villages of Canada, outbid the choice products, in shape

and size, and lead them out of the province.

However, nothing is less methodical, nothing is more carried on by routine than the mode of breeding in Lower-Canada. The maintainance of the purity of breeds, the crossings, the improvements claimed every day by the state, the requirements of the farm labours, finally all the questions which constitute the science of studs are generally unknown.

Breeding is so wrongly understood that now the six tenths and more of the products do not reach the age of four years without having in their limbs those indelible blemishes which give a high value to the horse who escapes the plague, and who are carried off by strangers, while the blemished products remain with us, and become the source of the perpetuity of the evil and its continued increase at each quinquennial generation.

Things have reached such a point that at fifteen or eighteen months, the great majority of the products is afflicted with a disease which is not known in France, and therefore has no special name in the Hyppiatric dictionaries of this nation. This affliction, for which the farmers of Lower Canada have adopted the English name, *Ring Bone*, from the name of the afflicted bone, and which is the second phalanx or *bone of the cornet*, is an anormal growth of this bone itself. Its vitality, in this case, becomes so energetic, that it juts out and no longer obeys the laws of forms and dimensions. It then grows capriciously and in such a manner as to form exterior prominences, and to impede the standing articulations. It therefore becomes a defect to the eye and a motive for refusing to the buyers.

This state of things becomes not only a misfortune for the owners but a public calamity. Therefore, I thought, it was my duty to lay the

case before you, the importance of which you cannot deny, and to call your attention on the necessity and possibility of finding a remedy.

Farricry properly so called, or the art of setting methodically, rationally and artfully a horse shoe, in using the horn to fasten it, becomes in this country, where it is very badly practised, not even known and nowhere taught, a source of considerable losses, by the alterations and the incurable laming and the serious diseases it produces. This is not a tale made for this cause; inquire from the inhabitants from all parts of the country, and you will see of what blunders they accuse the blacksmiths of. In another respect, Hon. Sir, and this ought to be done—the farriers ought to be examined on the knowledge they possess of the horse's foot,—I maintain that hardly one in a hundred—and I should not even make this restriction—knows the anatomy of the horse's foot, its physiology, knows whence and where the horn comes from, what it is, if it is elastic and how; what is the use of the hoof and frog; why the foot horn is squamous and not scaly and hence why and how we must perform such and such things to *shoe a horse well*.

Is there one in a hundred who knows the poisoning of a horse and the manner in which he ought to be shod? I do not believe it: Is there one in a hundred able to repair the *evils caused by his awkwardness*? I boldly affirm that there is not one. The foot of the horse, constantly in contact with the soil, whatever may be its nature or hygrometrical state, meets a large number of extraneous bodies which cause serious diseases, a stone between the shoe and the sole determines blyemes often very difficult to cure and even incurable, a nail lost on the way penetrates into the foot, and causes a wound which will last from a day to a year. Wet and mud create fissures of the horn

often very bad &c. Can farriers provide against that? No.

Then, we repeat it, the horse is, on the whole, a part of the public wealth, and, if private carelessness allows its production to be placed in danger, government must awake public attention on this question and offer to the community the means of preventing the negligence of its members and the ignorance of those it employs.

For these reason and for the question we have only glanced at, I have the honour to submit to your observations these remarks on the necessity of creating in the city of Montreal, a *Veterinary school of Farricry*, until we have, if possible, a school of medicine for domestic animals.

The study and consideration of the means will form, if you think proper, Hon. Sir, the object of another communication.

I remain,

Your humble and  
Obedient Servant,  
F. VOUREL.

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## Breeds of Domestic Cattle.

### I.

Like many other animals which have been subject to man so long that human history has no distinct record of the time when they were not domesticated, the origin of the domestic ox is not known, nor does it now exist, nor any other species of the family so closely allied to it as to be assignable as its primal type, in a state of nature, anywhere on the face of the globe.

From this however, must be excepted those great herds of semi-feral cattle which are found on the pampas of South America, and those scattered individuals encountered on the prairies of North America, which are the descendants, not the ancestors, of domestic cattle, escaped or released

from civilization ; as is also the case with all the horses now known to exist in any region of the world in a feral condition.

The same is the case with the camel, the sheep, the dog, and the domestic poultry, which have been in a state of subjugation to mankind since the very commencement if not of human language, at least of recorded history ; and of no one of which does the precise representative exist wild at the present hour, so far as has been ascertained, in any region of the earth. Attempts have been made to deduce the race of neat cattle, of which there is properly but one species, known to naturalists as the *bos taurus*, having, however, many subordinate varieties, from the European bison ; from the urus of the Romans, aurochs of the Teutons and Celts, which existed in the classic ages in all the great forest tracts of Europe, north and east of the Danube and the Rhine, and in the British islands ; or from another extinct species, described as *bos primigenius* by naturalists, the fossil remains of which are discovered, together with those of the aurochs, in the London clay in Essex and at Herne Bay, in the bed of the Avon, and in the bogs of Ireland and of the Scottish Highlands.

Cuvier, indeed, has expressed an opinion that the skulls of the species last named differ so little from those of the present oxen, that " there can be little doubt of there having belonged to the stock from which the latter have all proceeded, these having, however, degenerated in size and varied from them and from each other in minor points, owing to difference in climate, food, and other causes depending upon domestication ; their magnitude is at least one-third greater than that of the largest breed of modern oxen, and their horns are much more massive."

To this opinion Professor Owen

demurs, conceiving the *bos primigenius* to be a distinct species from the common ox, as it is from the bison or aurochs, in company with which it once roamed the savage solitudes of the great Caledonian forest ; and, in accordance with his weighty opinion, it may be observed that, although domestication is known and admitted to produce variety of color, and to multiply species, some of which will differ from others in point of size, as in other respects, it has not the effect of materially decreasing, if it have not that of enlarging the standard of size. There is, however, yet another fossil species, which has been discovered at great depths in bogs in Tyrone, in Longford and Westmeath, in Ireland, and in Essex, Middlesex and Devonshire, in Great Britain, so recently as 1839. It is not only distinct from all the fossil species, but differs little in its size, and in the diminutive horns which it exhibits, from the runts and kyloës of Kerry and the Scottish Highlands ; and these, there is some reason for supposing, are the nearest existing varieties to the cattle which were already, according to Cæsar, domesticated by savage and painted Britons prior to the Roman invasion. This fossil has been named, from the length of its frontal bone, *bos longifrons* ; and Professor Owen seems to lean to the opinion that these remains may be those not merely of the ancestors of the domesticated oxen of the early Britons, but of the subjugated animals themselves. Yet another theory assumes that the semi-wild, white or cream-colored cattle, with red-tipped ears and black horns and hoofs, a few of which are yet, or were quite recently, preserved in the parks of Chillingham and Chatelheraut or Cadzow, the property of the Earls of Tankerville and Dukes of Hamilton, in the north of England and the south of Scotland, are the original stock of the British oxen. It

would appear, however, that the fact of the intrinsic wildness and ferocity of this *quasi* feral breed of British cattle is itself questionable, and may be merely the consequence of the breed having been artificially preserved, if not rendered wild by the mode of its confinement in sequestered, rocky and woody fastnesses, and by its being occasionally hunted with horses and fire-arms. It is even asserted that its invariable and uniform color, the strongest argument in favor of its being an unmixed, aboriginal race, is itself artificial, all the spotted calves being, it is alleged, destroyed as soon as they are dropped, in order to prevent the deterioration of the apparent purity of the race.

It may seem at first sight that investigations of this nature, however curious and interesting to the naturalist and natural philosopher, are of no utility to the practical man, to the farmer, or the breeder of cattle. There can be no greater error. For it is certain that where the type and origin of any race of animals exists pure and unmixed, in its normal or natural condition, by recurrence to males of that type for the impregnation of females rendered partially artificial by the consequences of domestication, the pristine characteristics and vigor of the race may be in some sort recovered. And the nearer the approach to the normal or natural type and condition, so much the more does the male impress his own characteristics, whether faulty or excellent, on his progeny.

It is, therefore, all-important, when we propose to breed animals for the purpose of improving the general stock, or race, to ascertain whether there be or be not any pure original stock, by recurrence to which all inferior stocks or families may be improved and raised in characteristics.

In the case of the horse, this was indisputably the fact. The Arab

horse, whencesoever he was derived—for it is notorious that Arabia is not the native land of the horse—was, two hundred years ago, the most characteristic, vigorous and, in all points, superior horse in existence—probably because he then existed, and now does so no longer, in the purest and nearest form to his original condition. His progeny do so to this day. Some persons believe that he does so still; and that the decreasing estimation in which he is now justly held as a stock getter is attributable to no deterioration on his part, but to the fact that he is never or most rarely now seen or obtainable by civilized men in his best form. Others, and we are of opinion these more plausibly argue, that with the deterioration of the race of men, who are the owners of the desert-born Arab, with their loss of power, intelligence, cultivation, and means to care for the animal, as he was formerly cared for, the horse of the desert has also deteriorated; while his descendant, the heir to all his blood, the thoroughbred of England and America, is heir to more than all his qualities, and is as far superior to him as a progenitor, and in the transmission of hereditary qualities, as he is himself in actual size, strength, speed and endurance. Still, be this as it may, the fact is clear that the Arab blood in the horse, whether original and primary, as coming from the recently-imported modern Arab, or from his lineal descendant, the English and American thoroughbred horse, whichever of the two is to be considered superior, invariably and forever, and the more frequently it is infused, improves all other breeds of the horse for every possible purpose for which the horse has yet been used.

We say *has yet* been used; since, if the modern school of French gastronomic philosophy carry its point and succeed in convincing the nine-

teenth or twentieth century that the kitchen, and not the field, the road and the turf, is the true test of the horse, the feeding, fat-forming, and perhaps milk-giving properties of the horse will hereafter have to be cultivated, instead of his speed, his strength and his courage.

Now, if in neat cattle, as in horses we could at once recur to the original type of the race, if we could say here is the thorough-bred bull or cow as we can of the stallion and mare, and all the rest are but dunghills, we should have at once an invariable standard and an unexceptional rule for breeding. Since every cross of the inferior but gradually improving female to the superior male would be in that case a certain step gained and the breeding of cattle would approach, as that of horses does, nearly and every day more nearly, to an exact science.

But nothing of the sort is true of neat cattle. No one race of oxen is thorough-bred, as compared with any other race; nor is there any race so distinctly superior to any other that we can predicate to a certainty that crossing two different races, families or varieties will produce an improved off-spring.

When we say, then, that cattle are thorough-bred, Durham, short-horns, Devonshire, Ayrshire, Herefordshire, long horns, or what you will—we do not imply that any one of these bloods is more thorough-bred than any other, or superior to it. We do not even imply that the blood, of which we pronounce the individual animal thorough, is in itself original, primal, or other than the produce of some possible remote cross. We only assert that the animal is a pure and positive individual of an established and distinct variety, which is now capable of reproducing itself from two like parents, like to like forever. Just as we say, correctly, a thorough Canadian, a thorough Suf-

folk-punch; not one of which have or pretend to have a drop of thorough blood, in the true sense, in their veins—meaning only that they are genuine individuals of a genuine race.

The same is the case with the races or varieties of cattle. Each is pure in itself, but no one thorough-bred. Their qualities belong to their breeds; and for their qualities they must be chosen.

### Economy of Feeding Roots.

Although we are almost continually hearing the praises of root crops from numerous writers of the agricultural press, such encomiums being echoed through the contry on account of their great yield, as compared with other farm crops; and although this great aggregate yield per acre, their succulency, and other accredited qualities, are not to be denied; still writers on this subject have not, in many instances, proved themselves true theorists—theory being always a consistent ideal of the best practice—but rather copyists of a popular idea not really well understood, except by practical men who have had perception and judgment sufficient to enable them to deduce correct principles from experience of their own, or that coming under their own observation. This class of the best friends of agriculture, together with correct judges from observation know well that there are many things to be considered, as affecting the value of any crop for agricultural purposes, besides large relative yield; especially when the profits of such produce are indirectly derivable from its consumption and reproduction in another form, by means of stock, on the premises where it is raised. For instance there is the amount of meat-  
food in beeves, or the increase of weight in stock, as well as the quan-

tity of manure that can be made from it, together with the *exhaustion of the soil*, and the relative cost of production and feeding out as compared with other crops, more especially with such as are of well established value in the climate, and suitable to the season of feeding and the locality where raised. All these questions must come into the estimate, deciding the real worth of any kind of produce to the ordinary farmer or farmer of moderate means. Nor is this all; for, in practice, we have to consider furthermore, of any crop we propose to feed, whether it be really adapted to the physiological habits of our animals, and suitable to the ever influential conditions of climate and season.

Through much of the discussion on this subject, these conditions of the root-crop question have been frequently merely hinted upon, or altogether evaded or passed over; the omission, as I conceive, being fatal to the value, and the real ground of impracticability in the views generally enunciated on this topic.

Feeding root crop, as bagas and turnips, to stock in the fall, is attended generally with inconveniences and results that do not pertain to or result from the use of dry food, as corn-stalks, hays, etc., at this season. Late in autumn the grass crop, or its residue, becomes comparatively dry and more dry, till it approaches pretty nearly the texture, as to dryness, of hay itself; and therefore, when at length grass feed has come to an end, and stock is put upon dry food, it feels no ill consequences from such change of diet—the animal system having been gradually and consistently prepared, by the diminution of succulency incidental to grass feed of the season.

As diseases, sometimes of a serious character, result as frequently from sudden and great changes of diet as from other causes, if not more so,

changes in the character of food, as from dry to green and succulent, must inevitably be accompanied by corresponding consequences, modified however by quantity and shelter. Hay and other dry food has peculiar value, arising from its natural fitness, and freedom from this objection. As the succulency of food is gradually diminished from its highest state in summer, to its driest in autumn, the systems of animals are in like gradual manner contracted in dimension by reason of the reduced proportion of fluids in their food; the contents of the system become more condensed, the whole muscular fibres more constricted, and the animal from, being less relaxed, more able to bear the cold snaps peculiar to autumn, as well as better adapted to the approaching severity of winter.

These snaps,—as they are designated,—come on generally without foreseen indications, or such premonitions as would be necessary to enable us to regulate feed according to temperature. This being impracticable, feed in the autumn should be adapted to the necessities of the system in cold weather, rather than its requisites when the temperature is warm; because the tendency of temperature is towards increased cold. Dry food is obviously more suitable than such as is succulent, because it is more constricting or rather less relaxing in effect. Bearing on this view is the well-known susceptibility of the system of any animal, to the influences of cold in proportion to its condition of laxity, at all seasons—more especially when exposed to the sudden and extreme changes of our fall temperature; and till the cold of winter becomes more equable, steady, and continuous. Food of a cold and watery nature, when taken into the system at such times, must necessarily absorb and neutralize, and thereby divert from its natural purpose of keeping the body



warm, much of the internal heat; but dry food is free from this not unimportant objection, also.

When the mean temperature has become gradually colder, more heat is, with equal exposure—whatever may be true in exceptional instances—necessarily abstracted through the animal's hide; hence, if more nutritious food, or food with less heat-neutralizing properties, be not given, the animal must lose flesh. More nutriment is therefore necessary to keep up a given degree of animal heat, as cold increases or winter approaches. It is true more nutrition can be obtained by the consumption of more food; but it should be remembered, first—that the digestive organs have but limited power; and, second—that as the whole muscular system—muscles being the agents of digestion—has contracted—abdomen and stomach of course included—in proportion as the food of summer has gradually diminished succulency and consequently in bulk, till it has become substantially dry fall feed. Therefore more nutrition could be obtained only by increasing the number of meals, thus breaking upon the well established requisites of rest and regularity of feeding; time for the work and recuperation of the digestive organs.

Insensible perspiration, as the escape of watery parts of the food—after digestion—through the skin is called, is also much reduced by increased cold; the pores or vents shutting up, as it were, to prevent heat being abstracted or the equalization even going on, when bodies of different degrees of warmth come in contact with one another; this rule holding as well with warm hides and the cold air, as with your warm feet and a cold stove. Hence, when food containing too large a proportion of moisture is given, the excess of moisture is carried from the system through the bowels and kidneys;

because the skin refuses their egress in the form of vapor, and relaxation and greater liability to take cold surely follow such excess of water in the evacuations.

A given amount of nutriment can also be served out to animals in much less time, and consequently at less cost in dry than an equal amount in succulent food. Though this objection is of less importance than the unfitness of roots to the general concomitants of the season, still it is of weight enough to turn the scale in favor of dry, nutritious food in the fall, supposing the balance of advantages, as between such and succulent roots, was in other particulars generally equal; the more especially is this true, when the relative value of labor here is compared with its cost in the more equable climate of the British Islands.

Accordingly turnips, bagas, wurzel, &c., whatever may be their aggregate yield per acre—which is frequently very great—contain, notwithstanding, too much water, even if they were much more nutritious than they are, to be suitable as food for store stock when subject to ordinary exposure in this climate late in the fall.

For, instead of having a reduced amount of water in proportion to the nutriment, they contain in fact more water, and are more succulent and relieving than grass at midsummer—being therefore inconsistent with the general condition of food, of the state of the animal's system, temperature of the atmosphere, &c., which usually prevail in later autumn. Containing far too little nutriment, substantial food, in proportion to bulk—aside from their watery and heat neutralizing character—roots do not supply nourishment and heat enough to support the animal's strength and comfort, without unreasonable and hurtful engorgement of stomach and bowels; for the animal may be filled without

being fed—the appetite still craving, whatever the bulk of food he may have swallowed—till real nutriment enough has been given him to supply the demands of his ever wasting and renewing bodily structure.

Considering such facts and their certain influences, we cannot otherwise conclude than that it is injudicious for ordinary farmers, those with only the usual conveniences and capital, to feed roots to store or fattening stock in the fall. In England, where to-day sheep are scooping out turnips in the field, and where women can be found in sufficient numbers to pull up the bowl shaped lower halves with turnip hooks, for 12 cents per day—that all the manure of the crop may be left on the ground—and where the temperature is so equable that sheep have only the blue sky for an overcoat, and need no other shelter, except from heavy rains—sheep are profitably fed on turnips in the fall. Cattle are also fed large quantities of roots, the extra labor there required being cheap, and therefore no real offset to the profit of the practice, climatic conditions being generally favorable. But here we have another and widely different climate, and in my opinion at any rate, ordinary farmers—as the mass of the profession will ever be, relatively—may occupy their time and energies far more profitably and consistently by draining, manuring, and by every practicable means, improving the quality, and increasing the product of their grasses, which in some form are the natural and most economical fall feed for stock—rather than raising roots for that purpose—the latter being merely the copying of a practice, without the possibility of securing the conditions of climate and cost which make it consistent and economical.

In the spring season the tendency of temperature, bodily conditions, &c. are in the opposite direction, and

we may then act according to the circumstances of the season, and with some degree of reason and consistency, provided we can provide roots or their equivalent for feeding at that season of the year.

J. W. CLARK.

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### Plaster of Paris.

We have frequently recommended the liberal use of Plaster of Paris on our farms and gardens. Every farmer and gardener should have a supply on hand, to meet the many uses to which it may be put. Mr. Geo. Trowbridge of Camden, N. Y., concludes a long article on the constitution of arable soils, and the use of plaster, in the following manner:

1. That the atmosphere is a constant source of food for plants.
2. That the most available agent for securing the benefits of this food for plants, is plaster.
3. That, viewed in this light, the value of plaster in agriculture can hardly be overrated.
4. That it may be safely recommended for general use on all soils containing a portion of fermentative matters, and not so compact or wet as to prevent the process of exhalation or absorption.
5. That it should always be applied to the surface of the soil, or at least within the influence of the atmosphere.
6. That it should be sown at an early date in the season, before the period of the moist abundant dews and exhalation has commenced.
7. That it should always accompany manures used as a top dressing, or only slightly buried in the soil.
8. That it should be liberally employed about our barn-yards, stables, vaults, manure heaps, compost beds, and not however, in compost, under

the supposition that it would hasten the fermentation of the mass. Davy has refuted this opinion by direct experiments.

The proper quantity to be used broadcast upon the fields, has been decided by experience, as also by chemical science, to be from one to one and a half bushels per acre.—*Maine Farmer.*

### Save the Soot.

This, though generally thrown into the street, and wasted, is one of the best manures. Extensively used in England, and when only fifteen or twenty bushels are applied to the acre, it induces the most luxuriant crops of wheat and other grains. It contains, in small compass, almost all the ingredients of the coal or wood used for fuel. It also contains several salts of ammonia, magnesia, and muriatic acid. Its components are the natural food or stimulants of plants, and it can be used to great advantage as a concentrated fertilizer, to stimulate germinating seeds in the drill. It is not only sown broadcast with the grain, but it is applied to the root crops with the best results. Potatoes and carrots especially are benefited by it. Six quarts of soot to a hogshead of water make an excellent liquid manure for the garden. It can be applied with safety to all garden crops, and will pay for saving. In putting the stoves, furnaces, and fireplaces in order for winter, bear it in mind that soot is valuable, and will be wanted for spring use. One, two, three or more barrels can be saved easily in most families, especially where wood is burned.—*Prairie Farmer.*

## FRESH GARDEN, FIELD AND FLOWER SEEDS.

Lower Canada Agricultural  
Warehouse,  
ST. ANN'S HALL.

THE Subscriber is now receiving his usual supplies of FRESH SEEDS, of the first quality. The assortment is extensive, comprising every variety required for the Farm and Garden. Orders promptly filled. Catalogues to be had on application at the Hall.

WM. EVANS.

LARGE English Spring Tares—  
Field and Garden Turnip Seeds  
Early Dwarf and Dwarf Marrowfat Garden  
Peas

Broad Windsor Beans.

A full supply of the above just received from the celebrated House of Lawson & Sons, Edinburgh.

WM. EVANS.

St. Ann's Hall.  
Over St. Ann's Market, }  
April 1st, 1858. } 1

## TO FARMERS !

THE Subscribers offer for Sale—

750 bbls }  
1000 bags } Nova Scotia Land Plaster

The advantages of buying Bags instead of Barrels will be apparent when it is remembered that the latter contain 230 lbs and cost 6s. 3d., while the former, holding 200 lbs, are 5s. with a seamless cotton bag worth 1s. 4d. included.

LYMANS, SAVAGE & CO.

226 St. Paul Street,

(Successors to W. Lyman & Co.)

April 1st, 1858.



## Crown Lands Department.

Toronto, 10th December 1857.

NOTICE is hereby given that about 21,800 acres of Crown Lands in the 4th., 5th, 6th and 7th range and range A in the Township of Ashford will be open for Sale on condition of actual settlement, on and after the 11th day of January next.

For particulars, apply to the local Agent F. Têtu, Esq. at St. Thomas, County of L'Islet, C. E.

MONTHLY METEOROLOGICAL REPORT

For January 1858.

BAROMETER.

Mean reading of the barometer F inches corrected and reduced to...	32° 29 907
Highest reading of the barometer the 22nd day.....	30° 697
Lowest reading of the barometer the 4th day.....	29° 070
Monthly range.....	1° 627

THERMOMETER.

Mean reading of the standard thermometer.....	13° 76
Highest reading of the maximum do the 26th day....	43° 4
Lowest reading of the minimum do the 23rd day.....	18° 7
Monthly Range.....	62° 7
Mean of humidity.....	0° 786
Greatest intensity of the suns rays.....	51° 9
Lowest point of terrestrial radiation.....	19° 2
Amount of evaporation in inches.....	0 000
Rain fell on 5 days amounting to 0,751 inches, it was raining 34 hours 40 minutes	
Snow in 7 days, amounting to 11,70 inches, it snowed during 34 hours and 35 minutes.....	
Most prevalent wind N. E. by E.....	
Least prevalent wind E.....	
Most windy day the 12th day, mean miles per hour.....	16 m. '36
Least do do the 18th day do do	0 ,10
Ozone was present in rather large.....	
Aurora borealis visible during 5 nights.....	

Montreal Market Prices.

CORRECTED BY THE CLERK

OF THE

Bonsecours Market.

Montreal, April 1st, 1858.

Flour, Country, per quintal,....	11 6 to 12 0
Oatmeal, do .....	9 6 to 10 0
Indian Meal, do .....	0 0 to 0 0

GRAINS.

Wheat, per minot, ....	5 0 to 5 6
Barley, do .....	2 6 to 3 0
Peas, do .....	3 9 to 4 0
Oats, do .....	1 8 to 1 9
Buckwheat, do .....	2 0 to 2 3
Lower-Canada Indian Corn, do, yellow	4 0 to 4 6
Rye, do .....	0 0 to 0 0
Flax Seed, do .....	5 0 to 5 6
Timothy, do .....	9 0 to 10 4
Bran, do .....	0 0 to 0 0

POWLS AND GAME.

Turkeys (old) per couple, ....	8 9 to 10 0
Do (young) do .....	0 0 to 0 0
Geese, do .....	5 0 to 5 6
Ducks, do .....	3 0 to 3 6
Do Wild, do .....	0 0 to 0 0
Fowls, do .....	3 0 to 3 6
Chickens, do .....	0 0 to 0 0
Pidgeons, Tame, do .....	1 0 to 1 3
Partridges, do .....	0 0 to 0 0
Hares, do .....	1 0 to 1 3
Plover, do .....	0 0 to 0 0
Woodcock, do .....	0 0 to 0 0

MEATS.

Beef, per lb .....	0 4 to 0 9
Pork, do .....	0 5 1/2 to 0 6
Mutton, do .....	0 5 to 0 7
Do per qr. ....	5 0 to 7 6
Beef, per 100 lbs., ....	35 0 to 45 0
Pork, fresh, in carcass, ....	25 6 to 32 6

DAIRY PRODUCE.

Butter, Fresh, per lb., ....	1 3 to 1 6
Do Salt do .....	0 7 1/2 to 0 8 1/2
Cheese (skim milk) per lb .....	0 6 to 0 8
Do (sweet) do .....	0 0 to 0 0

VEGETABLES

Beans, American, per minot....	0 0 to 0 0
Do Canadian, do .....	7 6 to 8 0
Potatoes, per bag .....	3 9 to 4 0
Turkeys, do .....	0 0 to 0 0
Onions, per minot. ....	0 0 to 0 0

SUGAR AND HONEY.

Sugar, Maple, per lb. ....	0 6 to 0 6 1/2
Honey, do .....	0 0 to 0 0
Bee's Wax do .....	0 0 to 0 0

MISCELLANEOUS.

Lard, per lb. ....	0 10 to 0 11
Eggs (fresh) per dozen, ....	0 11 to 1 0
Halibut, per lb, ....	0 7 to 0 0
Haddock, ....	0 3 to 0 0
Apples, per barrel, ....	10 0 to 20 0
Oranges, per box, ....	37 0 to 0 0

## PRIZE SEEDS.

THE Subscribers have just received, per ROYAL MAIL STEAMERS, a complete Assortment of

### FRESH Garden, Field, and Flower Seeds,

of unquestionable quality. These Seeds are from the same source as those previously sold, and which have enabled the purchaser to compete successfully at the

### EXHIBITIONS

throughout the country. This assortment is worthy the attention of Farmers and Gardeners.

S. J. LYMAN & CO.,  
Place d'Armes.

April 1st, 1858.

### SULPHATE OF AMMONIA

TO PROMOTE

### THE GROWTH OF PLANTS AND SHRUBS.

THIS precious fertilizing Agent destroys insects, keeps the plants clean and is very precious for Green Houses and Hot beds.

S. J. LYMAN & CO.,  
Place d'Armes.

April 1st, 1858.

### J. LEDUC,

LATE AGENT OF L. RENAUD & FRERE,

MONTREAL,

COMMISSION & BROKER,

CHICAGO, ILL.,

Office:—No. 6, Dearborn St.

March 1858.

### VETERINARY INFIRMARY.

### DR. FELIX VOGELI

Graduated in the French Government schools and formerly Veterinary in Chief in the French Artillery and Cavalry. Short and full treatment of all horse and cattle curable diseases, 11, Bonsecours Street, Hôtel du Peuple, Montréal. Horses bought or sold to order.

October 1857.

## FRESH SEEDS, 1858.

LYMAN, SAVAGE & CO. (successors to Wm. Lyman & Co.) have just received from Europe and the United States their usual and very extensive supplies of GARDEN, FIELD and FLOWER SEEDS, which they offer to Country Merchants, Farmers and Gardeners, upon liberal terms. The Seeds are the growth of 1857, imported from the most reliable houses, and are warranted true to their names. Amongst them are the following:—

200 lbs Blood Beet  
100 lbs Sugar do  
200 lbs Early York Cabbage  
200 lbs Drumhead do  
100 lbs Low Dutch do  
50 lbs Large French York do  
50 lbs St Denis do do  
28 lbs Red Dutch Pickling do  
20 lbs Assorted Paris Cauliflower  
500 lbs Long Orange Carrot  
400 lbs White Belgian do  
200 lbs Early Farm Cucumber  
100 lbs Long Green do  
500 lbs Mangle Wurtzel, Long Red  
200 lbs do do Yellow Globe  
4000 lbs Red American Onion  
500 lbs Yellow do  
100 lbs White do  
50 bushels Assorted Garden Peas  
10 do Radish assorted  
20 do Yellow Aberleean Turnip  
60 do Yellow Sweede do  
20 do White Globe do  
10 do Early Stone do  
200 do Indian Corn, various kinds  
50 do Spring Tares  
Long Vermont Clover  
Do Rawdon do  
Do Dutch do  
Upper Canada do  
White Dutch do  
Lucerne  
Timothy, English Lawn Grass  
Hemp, Canary and Rape Seeds  
&c., &c., &c.

March 1st.

### THOMAS COUILLARD, IMPORTER,

No. 165, ST. PAUL STREET, MONTREAL.

Farmers will always find at the above address, a large assortment of Agricultural and Horticultural Implements, such as: Shades, Rakes, Scythes, Shovels, Plough Shares, Pitchforks, Hoes, Stay-Reels, &c.

—ALSO—

Sugar and Potash Kettles, Stoves of all sorts, Furnaces with Boilers, cast Iron of every description and a large assortment of

### Shelf Goods.

Nov. 1857.

**NOTICE**

TO

**FARMERS.**

THE MUTUAL FIRE INSURANCE COMPANY of the County of Montreal continues to insure farmers and other rural properties of the same description at 51 per £100 for three years, with a premium note of five pounds per hundred pounds insured to be assessed according to the losses and the expenses of the Company.

The amount insured now is over TWO MILLIONS OF DOLLARS.

**2,000,000 Dollars.**

Apply at the office No 1, St. Sacrement street Montréal or to the undersigned Directors.

- MM. Edw. Quin, President. Long-Point.
- Joseph Laporte, Pointe-aux-Trembles.
- Eustache Prudhomme, Côteau-St.-Pierre.
- Walter Benny, Montreal.
- Benj. Comte, do
- P. Malot, Belœil.
- M. F. Valois, Pointe-Claire.
- Leopold Desrosiers, Berthier.
- Wm. Boa, St.-Laurent,

P. S. LE TOURNEUX.

Secretary and Treasurer.

Montreal, 12th Janv. 1858.



**TO FARMERS !**

**PIERRE DUFRESNE,**

MANUFACTURER OF

**BOOTS AND SHOES,**

AT LOW PRICES,

Wholesale and Retail,

NO. 123,

CORNER OF ST. GABRIEL AND

NOTRE-DAME STREETS,

Sign of the Little Red Boot.

September 1857.



**Dr. Picault's Medical Hall,**

**42, NOTRE-DAME STREET,**

**MONTREAL.**

THE most approved Médecines for the diseases of Horses and Cattle will always be found at the above address.

— ALSO :—

Consultations and treatment of all diseases by Drs. Picault, father and son, Drugs of all sorts, French Patent Medicines, &c.

September 1857.

**Worthy of Recommendation.**

Mr. J. B. ROLLAND'S Library has always been remarkable for the choicest and most complete assortment of

**Books on Agriculture,**

**Papers,**

**Pictures, &c.,**

to be found in this City, his prices will be found as low as those of any other book store.

September 1857.



**Bureau of Agriculture**

**and Statistics,**

Toronto, July 28th, 1856.

HIS EXCELLENCY THE GOVERNOR GENERAL, has been pleased to approve of the method of distribution of the LAND IMPROVEMENT FUND, prescribed by the Order in Council herewith, published in the hope that a judicious and economical management thereof may be thereby insured.

A Circular from the Department will be received by the Head of each Municipality, stating the amount at the disposal of such Municipality.

As the best season of the year for making improvements to which the Fund is applicable is close at hand, it is recommended that the preparations for the appropriation of the Money be made as soon as possible.

The Order in Council is as Follows:—

It is ordered that the Funds derived from the sales of Lands in each particular Township, or other Municipality, and applicable to the purposes of the Fund formed under the 14th Section of the Act 16 Vic., Ch. 159, and not already apportioned, be applied to the making, maintaining, altering, or improving of the Roads or Bridges in each of those Townships, or other Municipalities, respectively, and be for this purpose, distributed and disposed of by and through the Municipal Council of each such Township or other Municipality. Each such Council to report to the Bureau of Agriculture the manner of Expenditure of all such Monies on the FIRST DAY of JANUARY and 1 JULY, in each year, and at any intermediate time within ten days after having been called upon so to do, by that Department.

Certified,

W. H. LEE, C. E. C.  
P. M. VANKOUGHNET.



## Bureau of Agricultural Statistics,

Toronto, 25th July, 1856.

### To Emigrants and others seeking lands for Settlement.

The PROVINCIAL GOVERNMENT have recently opened out THREE GREAT LINES OF ROAD, now in course of completion, and have surveyed and laid out for Settlement the Lands, through, and in the vicinity of which those Roads pass.

The Roads, as advertised by the Agents of the Government, appointed to the respective localities to afford information to the Settlers, are known as "THE OTTAWA AND OPEONGO ROAD," "THE ADDINGTON ROAD" and "THE HASTINGS ROAD."

## The Ottawa and Opeongo Road

Commences at a point on the Ottawa River, known as "Ferrall's," a little above the mouth of the Bonchere River, and runs in a Westerly direction, passing through the northerly part of the County of Renfrew.

It is intended to connect this road with a projected line of road known as "Bell's Line" (leading to the Lake Muskako, and Lake Huron, by a branch which will diverge from the Opeongo Road in the Township of Brudnell, at a distance of about 53 miles from the River Ottawa, forming with "Bell's Line," a great leading road, or base line from the Ottawa to Lake Muskako, 171 miles in length, passing through the heart of the Ottawa and Huron Territory, and opening up for settlement a vast extent of rich and valuable land.

This road, and the country through which it passes, now open for settlement, is easily accessible, and the Agent for the granting of Lands in this district is Mr. T. P. French, who resides at Mount St. Patrick, near Renfrew, on the Opeongo Road, a few miles from the Lands which are to be granted. To reach the section of Country under Mr. French's charge the Settler must go from MONTREAL up to the Ottawa River to a place called Bonchere Point, and thence by land come twenty-five or thirty miles westward to the Township of Grattan, in which Mount St. Patrick is situated.

## The Addington Road

Commencing in the Townships of Anglesea in the northern part of the county of Addington near the Village of Flints Mills, in Kaladar, runs almost due north to the River Madawaska, a distance of 35 miles—and is to be continued thence for the distance of 25 miles till it intersects the Ottawa and Opeongo Road.

The Agent for the granting of the Land in this district is Mr. E. Perry, who, for that purpose, is now resident at the Village of FLINTS MILLS. The outlines of five townships of very superior land are already surveyed and ready for Settlement within the limits of the Agency, lying north of Lake Massawaka, and between it and the River Madawaska. The Townships are

called respectively Abinger, Denbigh, Ashley, Effingham, Anglesea, and Barrie.

The direct route to this Section is by way of KINGSTON, Canada West, thence, to NAPANEE, either by land or Steamboat, and thence North to the Township of Kaladar, and the Village of FLINTS MILLS where Mr. Perry resides.

## The Hastings Road

Almost paralld to the Addington Road, and at a distance West from it of about 32 miles is the HASTINGS ROAD. This Road beginning at the northern part of the County of Hastings, and running a distance of 74 miles, almost due north, also intersects the OTTAWA AND OPEONGO ROAD and its extensions.

The Government Agent is Mr. M. P. Hayes, who resides at the Village of Hastings, lately called Madoc, about 28 miles north of the town of Belleville. The Road between these places is in good order—The land to be granted by the Crown under this Agency extends from 15 to 70 miles north of the Village of Hastings. The Road through this large extend of land is passable for 40 miles, and money is now being expended to extend it 30 miles further, so that Settlers can get in and out without difficulty, and find a good market for surplus produce, as well as convenient facilities for bringing in what ever supplies they may require—abundance of which can be had at the Village of Hastings, where the Government Agent resides.

The direct way to reach this Section which is easily accessible, is by KINGSTON, Canada West, thence by Steamboat up the Bay of Quinte to BELLEVILLE, 56 miles, and thence by a good Road to HASTINGS, 28 miles.

In order to facilitate the Settlement of the Country and provide for keeping in repair the Roads thus opened: the Government has authorized Free Grants of Land along these Roads, not to exceed in each case ONE HUNDRED ACRES, upon application to the Local Agents, and upon the following.

## Conditions.

That the Settler be eighteen years of age.

That he take possession of the land allotted to him within one month, and put in a state of cultivation at least twelve acres of the land in the course of four years.—build a house (at least 20 by 18 feet) and reside on the lot until the conditions of settlement are duly performed; after which accomplishment only, shall the settler have the right of obtaining a title to the property. Families comprising several settlers entitled to lands, preferring to reside on a single lot will be exempted from the obligation of building and of residence, (except upon the lot on which they live) provided that the required clearing of the land he made on each lot. The non-accomplishment of these conditions will cause the immediate loss of the assigned lot of land, which will be sold or given to another.

The road having been opened by the Government, the settlers are required to keep it in repair.

The Local Agents, whose names and places of abode have already been given, will furnish every information to the intending settler.

The LOG-HOUSE required by the Government to be built, is of such a description as can be put up in four days by five men. The neighbours generally help to build the Log-cabin for newly arrived Settlers, without charge, and when this is done the cost of the erection is small; the roof can be covered with bark, and the spaces between the logs plastered with clay, and white-washed. It then becomes a neat dwelling, and as warm as a stone-house.

The Lands thus opened up and offered for settlement, are, in sections of Canada West, capable both as to Soil and Climate, of producing abundant crops of winter wheat of excellent quality and weight, and also crops of every other description of farm produce, grown in the best and longest cultivated districts of that portion of the Province, and fully as good.

There are, of course, in such a large extent of country as that referred to, great varieties in the character and quality of land—some lots being much superior to others; but there is an abundance of the very best land for farming purposes. The Lands in the neighborhood of these three roads will be found to be very similar in quality and character, and covered with every variety



of Timber—some with hard wood, and some with heavy pine.

Water for domestic use is every where abundant; and there are, throughout, numerous streams and falls of water, capable of being used for Manufacturing purposes.

The heavy timbered land is almost always the best, and of it, the ashes of three acres—well taken care of and covered from wet,—will produce a Barrel of Potash, worth from £6 to £7 currency. The capital required to manufacture Potash is very small, and the process is very simple and easily understood.

The expense of clearing and enclosing heavily Timbered Lands, valuing the labor of the settler at the highest rate, is about **FOUR POUNDS** Currency per Acre, which the first wheat crop, if an average one, will nearly repay. The best timber for fencing is to be had in abundance.

A Settler on these lands, possessing a capital of from £25 to £50, according to the number of his family, will soon make himself comfortable, and obtain a rapid return for his investment. The single man, able and willing to work, needs little capital, besides his own arm and axe—he can devote a portion of the year to clearing his land, and in the numerous lumbering establishments, he can, at other seasons, obtain a liberal remuneration for his labor.

The climate throughout these Districts is essentially good. The snow does not fall so deep as to obstruct communication; and it affords material for good roads during the winter, enabling the farmer to haul in his firewood for the ensuing year from the woods, to take his produce to market, and to lay in his supplies for the future—and this covering to the earth, not only facilitates communication with the more settled parts of the District, but is highly beneficial and fertilizing to the soil.

In all the localities above named, wherever Settlers have surplus produce, there is a good market for it near to them—farm produce of all kinds being in great demand by the Lumber or Timber Merchants, who are carrying on extensive operations through these parts of the country.

According to the ratio of progress which Canada West has made during the last ten years, the value of property on an average

doubles within that period; irrespective of any improvements which may have been made by the Settlers.

In many Counties the value of Land, once opened for settlement has increased **FIVEFOLD** in the period named, but the average value of such land, according to the statistics of Canada West, **DOUBLES EVERY TEN YEARS** in the mere lapse of time, exclusive of any expenditure thereon—and it is not too much to expect that this ratio will not diminish for generations to come.

The Sections of Country opened by these roads lie in and to the Southern part of the Great Ottawa Region, stretching from and beyond them to the shores of Lake Huron, to Lake Nipissing, and to the Ottawa River—an immense extent of country whose resources are now seeking and will rapidly obtain development.

**THE OTTAWA COUNTRY**, lying south of Lake Nipissing and of the great River Ottawa, and embracing a large portion of the land offered for settlement, is capable of sustaining a population of **EIGHT MILLIONS OF PEOPLE**, and it is now attracting general attention, as the more western portions of Canada are being rapidly filled up.

The Parliament of Canada in its last Session, incorporated a company for the construction of a Railway to pass through this Ottawa country from the Shores of Lake Huron to the City of the Ottawa, and thence Eastward.

A survey of the River Ottawa and the neighbouring Country has been undertaken, and will be completed in the present year, its principal object being to ascertain by what means the River Ottawa can be rendered navigable and connected with Lake Huron so as to enable vessels to pass by that route from the most Western Waters into the River St. Lawrence and the Ocean. These projected works are alluded to, in order to show that the attention of the Government, Parliament and people of Canada has been fixed upon this important portion of the Province.

**P. M. VANKOUGHNET,**

Minister of Agriculture, &c.