Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- ☐ Coloured covers / Couverture de couleur
- ☐ Covers damaged / Couverture endommagée
- ☐ Covers restored and/or laminated / Couverture restaurée et/ou pelliculée
- ☐ Cover title missing / Le titre de couverture manque
- ☐ Coloured maps / Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations / Planches et/ou illustrations en couleur
- ☑ Bound with other material / Relié avec d'autres documents
- ☐ Only edition available / Seule édition disponible
- ☑ Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.

- ☐ Coloured pages / Pages de couleur
- ☐ Pages damaged / Pages endommagées
- ☐ Pages restored and/or laminated / Pages restaurées et/ou pelliculées
- ☑ Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- ☐ Pages detached / Pages détachées
- ☑ Showthrough / Transparence
- ☑ Quality of print varies / Qualité inégale de l'impression
- ☐ Includes supplementary materials / Comprend du matériel supplémentaire
- ☐ Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from scanning / Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été numérisées.

☑ Additional comments / Commentaires supplémentaires: Continuous pagination.

The Farmer's Journal,

AND

TRANSACTIONS OF THE LOWER CANADA BOARD OF AGRICULTURE.

VOLUME V. | Price 50 cents per annum, in advance. POSTAGE FREE. | NUMBER 5.

January 1858.

PUBLISHED UNDER THE DIRECTION OF Mr. J. PERRAULT,
Secretary-Treasurer of the Lower Canada Board of Agriculture, Pupil of the Imperial College of Grignon, (France) and of the Royal College of Agriculture of Cirencester.

CORRESPONDENTS.

C. SMALLWOOD, M. D. L. L. D.

M. FÉLIX VOGELI,
Veterinary Surgeon from France, formerly chief Veterinary Surgeon of Cavalry and Artillery and Professor of Hippiatrics, Author of different Works on the Veterinary Art and Member of several Scientific Societies in France.

TRANSLATOR, T. CHAGNON, Esq.,
Assistant-Secretary of the Board of Agriculture,

CONTENTS

MONTREAL

PRINTED & PUBLISHED BY De MONTIGNY & Cº PROPRIETORS

18 & 20, St. GABRIEL STREET.

☞ *Letters invariably refused unless prepaid.*

☞ *Advertisements, 6d per line, invariably published in the two languages. Business cards £5 per annum, two lignes only are allowed for that price.*

☞ *Price of subscription 2s 6d payable invariably in advance, and to take date from the 1st of September.*

☞ *Those who wish to discontinue their subscription must give notice thereof one month before the expiration of the term of their subscription for the year, otherwise they shall be considered as subscribers for another year.*

☞ *Extract from Bill of Agriculture*, 20 *Vic. Cap.* 32, *Section* 15, "If the said Boards or any of them shall publish a Monthly Journal, &c., it shall be the duty of all Agricultural Societies receiving any share of the Public Grant, to give notice of the time and place of holding their Exhibitions in the Journal so published or adopted by the said Boards respecively."

The Farmer's Journal.

MONTREAL, JANUARY 1858.

To Subscribers.

Those who have not sent in the amount of their subscription, are requested to do so during the month, by post (prepaid), if not we shall be obliged to discontinue to send them the journal.

DE MONTIGNY & Co.,
Proprietors,
Montreal.

2nd January 1858.

THE NEW YEAR.

To all our subscribers we beg to express our best wish of a "*Happy New Year.*"

It shall ever be our most sincere prayer that our readers may derive from the perusal of our columns during the year 1858, all the information that can be advantage to them. — We will endeavour to make it interesting, and give the best possible information on the improvement of the agriculture of our Country. Providence has furnished Canada with a fertile soil, and the climate is the most favorable. If our beautiful country farms do not produce what they at first produced, it is because they are exhausted; they have produced for years the same crops, and often without any manure. One of the great secrets of agriculture, well known to all able agriculturists, is the *rotation of crops*; that is the cause for which agriculture is so backward in Canada. To this great secret may be added the draining of lands, and deep ploughing. In fact, how can we hope to have sound and abundant crops, when we have sown in the *mud*. Generally the soil is ploughed six inches deep only; the subsoil hardens, water does not soak into the soil, and remains near the roots which it rots. If, on the contrary, the soil was ploughed twelve inches deep, rain water would only water the roots, and at ten inches lower it would maintain that freshness so necessary to vegetation.

The selection of seed grains, their proper keeping in safety until sowing time, their adaptation to the different soils, are certainly things not generally taken enough into consideration. Climate, heat, light, moisture, predominating winds, difference of soils must also be considered, and the culture adapted to them.

The importation of wheat from the United-States or Europe, would do a great good to the Country; seed grains must necessarily be changed; if our wheat was renewed, the crop would certainly be better —The fly, which injures it since many years, deposits its eggs on the grain; they adhere to it, and in the spring *wheat and flies are sown*: the fly hidden into the soil, comes out again in the spring, but it is certain that she deposites her eggs on the grain, and they are *taken care* of during the winter—hence the necessity of changing the seed grain, of washing it with some solution which, in destroying the eggs of the fly, would in no way injure the seed wheat. It is just the same with the potato:—how can we hope to have a crop of sound potatoes, when rotten or half rotten potatoes have been sown. Select the soundest potatoes when dug out; put them during winter in a dry place, where they will not freeze, for if you put them in a wet cellar, they will be full of water when you sow them, and they will certainly rot. In perusing paper sand reports on this plant, we see that it is easy to prevent the rot; at least many succeed. Some sow them in

sandy soils, others pretend that deep plowing is an efficient remedy; we are of the same opinion; a Yankee says he succeeded perfectly, in putting a pea in the middle of a *whole* potato when sown: —The plague enters into the stem of the pea, and the potato remains sound. If some body makes this experiment, we would be obliged for a report on the subject; the matter seems to be singular enough, but it is worth the trial and is very easily done.

We have mentioned a few improvements to be made; there are thousand to be attempted, but we cannot say more on the subject, our space being so limited. — We will say, before closing, that we will always be happy to receive correspondences from our subscribers or others who will favour us with result of their experience Our answer to all question will be found in the columns of our Journal.

Improvement in the Breed of Horses.

In former articles we have shown, or endeavored to show, a few of the general principles of horse-breeding; the advantages resulting from breeding to pure blood on the sire's side, whatever the quality of the dam; the points of the symmetry and strength most desirable, and, indeed necessary to the parents on both sides, and on which side more particularly; the necessity for perfect structural and constitutional soundness and health, on both sides, and for the absence of hereditary vice of temper: and, lastly, the state of health to be aimed at in the dam, as well previous to her being taken to the horse as during the period of her gestation, and the means to be taken to obtain and preserve that condition of health, or, as it is usually termed among horsemen, *condition*, emphatically. We shall now proceed to show a little more particularly what are the improvements to be obtained in different varieties, and how this improvement is to be produced; for it is very certain that the same horse will not answer for every kind of mare, but that, on the contrary, for very different styles of dams different sires will be required to produce equal results in the progeny. Now, it may be stated generally that the ordinary objects of breeding up are twofold. One, and the most common and most feasible, is from an entirely cold stock, we will say, for example, the Cleveland Bay, or the nearest approaches to be found to it in this country, the Conestoga cart mare, namely, or the larger Vermont draught mare. We do not speak in this connection of the Morgan, or the Canadian, or the Norman —some mares of which last stock have been recently imported into this country—since all of these have some strains, more or less distant, of thorough blood—to raise a progeny improved in spirit, speed, lightness of action, endurance of fatigue and courage, by stinting mares of that stock to blood horses. This is the simplest of all the ends to be attained and can be almost certainly accomplisshed, by sending the mare—taking it for granted that she is sound and generally well formed—to any thorough-bred horse, provided he also is sound, well shaped and free from vice. Any such horse will, more or less, improve the progeny, both in blood and in the form, structure and strength of the bones, both in frame and spirit, without any especial reference to the particular strain of thorough blood from which he himself comes, so that the strain be not tainted with hereditary diseases. In the second and third, and yet more in later generations, when blood has been introduced and the dams as

well as the sires have some mixture of a pure lineage, it is more requisite, to look to families, since some families notoriously cross well with others, and some as notoriously ill. Of course, it is better that the sire, where it is possible, should be of a racing stock that is famous for courage and stoutness, such as any of the stock which trace remotely to Herod, Cade, Regulus, Eclipse, or others of known fame; but thus far it is not essential, or a *sine qua non*, since every blood horse, even if—as Sir John Fenwick said in the reign of Charles II—he be the meanest hack that ever came out of Barbary, is so infinitely superior in courage, stoutness and quality, both of bone and sinew, as well as blood, to the best cold-blooded-mare that ever went on a shodden hoof, that he cannot fail to improve her stock, whatever may be his comparative standing among racers. All therefore, that the breeder has to do in this instance is to satisfy himself that the horse is *really thorough-bred* —that is to say, traceable on both sides of his pedigree to English stud-book race-horses—and that he has the virtues and has not the defects of form which have been previously subjects of discussion. Next to this there must be an harmony in the size, and, to some extent, in the forms of the animals. The putting small mares to gigantic horses, or colossal mares to ponies, in order to give size to the offspring, will never answer, but on the contrary will result in the production of rickety, malformed produce. The mare as it has been said may be with advantage something larger, longer and more roomy than the horse, but not too much so. We should say a mare of sixteen hands and proportionate strength should never be put to a stallion under fifteen hands, and from then up to fifteen and one inch; nor a mare over sixteen hands to one short of fifteen and a half, up to sixteen, hands three. Still less should little mares be put to tall horses, or low mares to leggy horses, in order to give hight. If the brood mare be low, but long and roomy, it is no bad fault; but the way to give size to the progeny is to select, not a tall or leggy horse for the stallion, but one of singularly perfect symmetry, not much higher than the dam, though an inch or two inches will do no harm, provided he be not long in the legs, especially from the knee downward, short backed, close coupled, and generally strong built—particularly so in those points where the mare is too much defective. We stated above that there is no greater blunder than to breed from an animal rickety and defective in one point, to another perfect in that point or even unduly developped in it, with the expectation of curing both defects in the progeny. This rule, however, is to be understood with some margin. That is to say, it is to be held absolute only where the defect in the mare or the horse is so great that it is imprudent to breed from either at all. One often, however, sees both mares and horses with some one or more faults in symmetry which are positive defects, although only in a secondary degree, and which are at the same time counterbalanced by so great a number of positive advantages, excellence and beauties, that he is wise to waive the one defect striving to remedy it, in view to the other good to be hoped for from the strain. Now it of course follows, that if one breed from parents, each of whom is in a degree faulty in one and the same point, it is more likely to have an offspring faulty in the same point, than if he breed from one which is in a degree faulty and the other excellent. Therefore, no one in his senses would doubt that, if his mare was slightly too long in the leg, or too light of bone, somewhat to long in the back,

too loose in the loins, or to narrow in the chest, he should choose a stallion to which to put her as strong and as perfect as possible in those parts which in the mare are blamable. The transmission of external shapes is as yet a mystery, and probably ever will continue so. No one can say whether the stallion or the mare has the greater share in giving structural form or constitutional disposition to the young animal. Indeed, there seems reason to believe that there is not any invariable rule on the subject; but that some dams and some sires possess an extraordinary power of impressing their own forms and stamping their own images, in the greater degree, on the young. The general rule, however, and that which it is wise to observe is that *like begets like.* Therefore, the practice should be always, where one desires to breed from a mare slightly defective in one point, or more than one, of symmetry, to select a stallion as excellent as possible in that defective point, and if one be resolved for any cause to breed from a stallion of whose blood, or beauty, or performance he is particularly enamored, and that horse be weak in any point or points, to put to him whatever mare one may have in his stud most excellent, where he is weakest; but in no case, even if he prohibit one from breeding from that horse at all, to put him to a mare which is faulty in the same part. The second ordinary object of breeding-up is, where mares of some highly valued strain, possessing some degree of pure blood engrafted on an inferior stock, have degenerated in size, in hight, strength and size of bone, to breed them to such horses as shall, without deterrorating their blood, improve them in size and bone. This is a far more difficult question in breeding, and before it can be answered it will be necessary to know of what blood is the impure portion constituted, and in what proportion does it exist. If it be distinctly of cold blood, as of Cleveland bay, Suffolk Reach, Conestoga, or common cart-horse, and if the proportion of thorough blood mixed with it be inconsiderable, it may at once be pronounced useless to take any pains about it, as the results will not, it is a thousand to one, repay the trouble or expense. If the proportion of pure blood be considerable, but remote, and the stock have been long *in bred*—as, for example, is the case with the Morgans—the only possible way to breed them up is to stint the mares to the very best and most powerfully made short coupled, broad chested, strong loined, short legged, thorough bred stallions that can be found, of a totally distinct recent strain of blood, if the blood of the mares can be ascertained, although it will not be the worse if, some ten or more generations back, the both run into the same line. In this case the stallion, in the first cross, should not be taller or larger than the mare, except in strength, size of bones and muscular development. The fillies in the second generation will be larger in all ways than their dams—since improvement of strength, health, symmetry and developpement implies improvement in size. These fillies may be again put to horses of exactly the same stamp as that last described, but just so much larger than her dam. This will in all probability achieve the desire end. This is fact what is known among breeders as breeding up, in the true sense of the word. If, on the other hand, the mares, degenerated, have been crossed with pure English blood, but remotely and not recently, on Canadian or imported Norman stock, there will be no objection to crossing them back once to Canadian or Norman stallions; and the breeding back will often in that case so far reinvigorate the race that the fillies produced by that union

will often reproduce animals of astonishing excellence by a farther cross with well-chosen thorough blood of the present day. In a future paper we shall explain what is meant by avoiding in-breeding continually to the same blood, yet breeding back to it, after a lapse of years with beneficial effect.—*New York Tribune.*

The Ends of Education.

The great leading error of these modern times is the mistaking of erudition for education. Education is the leading of human souls to what is best, and making what is best out of them; and these two objects are always attainable together, and by the same means: the training which makes men happiest in themselves also makes them most serviceable to others. True education then, has respect, first to the ends which are proposable to the man, or attainable by him; and secondly, to which the man is made. So far as it is able, it chooses the end according to the material; but it cannot always choose the end, for the position of many persons in life is fixed by necessity; still less can it choose the material; and, therefore, all it can do is to fit the one to the other as wisely as may be. Among all men, whether of the upper or lower orders, the differences are eternal and irreconcilable, between one individual and another, born absolutely under the same circumstances. One man is made of agate, another of oak; one of slate, another of clay. The education of the first is polishing; of the second seasoning; of the third rending; of the fourth moulding. It is of no use to season the agate; it is vain to try to polish the slate; both are fitted by the qualities they possess, for services in which they may be honored. Now, the cry for the education of the lower classes, which is heard every day more widely and loudly, is a wise and sacred cry, provided it be extended into one for the education of all classes, with definite respect to the work each man has to do, and by the substance of which he is made * * * What the sum or the nature of their knowledge ought to be at a given time or in a given case, is a totally different question; the main thing to be understood is, that a man is not educated in any sense whatsoever, because he can read Latin or write English, or can behave well in the drawing-room; but that he is only educated if he is happy, busy, beneficient, and effective in the world; that millions of peasants are therefore at this moment better educated than most of those who call themselves gentlemen; and that the means taken to "educate" the lower classes in any other sense, may very often be productive of a precisely opposite result. — *Ruskin's Modern Painters.*

The Owner of the Soil.

The man who stands upon his own soil, who feels that by the laws of the land in which he lives—by the law of civilized nations—he is the rightful and exclusive owner of the land he tills, is by the constitution of our nature under a wholesome influence not easily imbibed by any other source. He feels, other things being equal, more strongly than another, the character of a man as the lord of an inanimate world. Of this great and wonderful sphere which, fashioned by the hand of God, and upheld by His power, is rolling through the heavens, a part is his—from the centre to the sky. It is the space on which the generation before moved

in its round of duties, and he feels himself connected by a link with those who follow him, and to whom he is to transmit a home. Perhaps a farm has come down to him from his fathers. They have gone to their last home! but he can trace their footsteps over the scenes of his daily labors. The roof which shelters him was reared by those to whom he owes his being. Some interesting domestic tradition is connected with every enclosure. The favorite fruit tree was planted by his father's hand he sported in boyhood beside the brook which still winds through the meadow. Through the field lies the path to the village school of earlier days. He still hears from the window the voice of the Sabbath bell which called his father to the house of God; and near at hand is the spot where his parents laid down to rest, and where, when his time has come he shall be laid by his children. These are the feelings of the owner of the soil. Words can not paint them; they flow out of the deepest fountains of the heart; they are the life-spring of a fresh, healthy and generous national character.—*Edward Everett.*

Sugar Beet.

The sugar Beet seems destined to become the most extensively cultivated throughout Canada. It is finer grained, sweeter, more delicate and agreable to the taste than mangel wurtzel; it is also more nutritious, and gives as large a yeild. Horses, cattle, sheep and swine prefer it, fed raw, to every other root. It makes fine wool, pricy and delicate meat and as rich and sweet milk and butter in winter as the sweetest pastures in summer.

The best soil for the production of the sugar beet is a deep, light and moderately rich loam, resting on a clay subsoil, but very large crops have been taken from gravels and sands, and the hardest clay, but in these cases they had undergone a potato cropping, thereby manuring the preceeding year, and a slight covering of compost, ashes, plaster of lime, the spring they were planted in beets.

Soak the seed at least two days previous to planting, in soft tepid water and then roll it in plaster or ashes so as to prevent its sticking together, and facilitate the sowing. The first and second weeks in May are the most proper times for plantation.

It can be sown broad cast or in drills. As fast as dropped it must be covered with the hoe; in heavy soils about half to three fourths of an inch deep, in sand or light gravel twice this depth. The rows may be from one to three feet a part, for a field crop. Two and half to three feet is the best.

Four pounds of seed per acre is considered enough. The ground must be kept clear of weeds, especially in the first two months. When the plant has attained a height of about three inches, it should be thinned to a distance of about two inches, and at last thinned out so as to leave a distance of about nine or ten inches between the plants. These thinnings are valuable to feed the stock during the summer. The best time for havesting is when the leaves begin to decay or turn yellow. They should be put in a well ventilated cellar; if put in heaps, holes should be made every few feet on the top of them, and wisps of straw be placed in such holes.

The following is a statement of its cultivation:

Expense of an acre of Suger Beets.—Use of an acre of land well prepared for beets, and manured or managed

in the previous crops	$12.00
Ploughing	4.00
Cultivation, horse cultivator and hand, 2 hours	0.50
Twice more before sowing	1.00
Seed, $2.25; Sowing worth 75 cents	3.00
First hoeing	4.00
Second hoeing, thinning, and transplanting, to supply deficiencies	4.00
Hoeing again, and loosening the ground with machines	2.00
Harvesting	9.00
	39.50

Now, I will give the manner of making Beet Sugar.

The first operation is to clean the roots; some effect this by washing, others prefer scraping and paring them with a knife, although by this means one sixth part of the root is wasted, as the scrapings mixed with earth cannot be safely given to cattle, and even the pigs eat but little of it; but it adds to the manure and is not altogether lost.

Then the pulp is ground, it is put into strong canvass bags, and placed under a powerful press to squeeze out the juice. The residue is stirred and subjected to a second and third pressure, if necessary, till every particle of juice is extracted. As the liquor is pressed out it runs into a a copper until it is two thirds filled. The fire is now lighted, and, by the time the copper is full, the heat should be raised to 178o of Fahrenheit's thermometer, but no higher. In the meantime, a mixture of lime and water has been prepared by gradually pouring as much water upon ten pounds of quicklime as will make the mixture of the consistency of cream.

This is poured into the copper when the heat is steadily at 178o and is well mixed with the juice by stirring it—The heat is then increased till the mixture boils, when a thick and glutinous scum rises to the surface. As soon as clear bubbles rise through this scum, the fire is suddenly put out by water poured on it, or by a proper damper. The scum hardens as it cools, and the sediment being deposited, the liquor becomes clear and of a light straw colour. The scum is then carefully taken off with a skimmer having holes in it, and is put into a vessel till such time as the liquor remaining in it can be pressed out. A cock is now opened about five inches above the bottom of the boiler, and all the clear liquor is drawn off. Another cock lower down lets out the remainder until it begins to appear cloudy: what still remains is afterwards boiled again with what is extracted by pressure from the scum. The clear liquor is now subjected to evaporation in another boiler, which is wide and shallow. The bottom is but slightly covered with the juice at first, and it boils rapidly. As the water evaporates, fresh juice is let in. When a certain degree of coagulation or thickening has taken place so as to show five or six degrees of strength, animal charcoal is gradually added till the liquor arrives at 20o. One hundred weight of charcoal is required for the juice of two and a half tons of beet, which is now reduced to about 400 gallons. The evaporation by boiling continues till the thermometer marks 25o, and a regular syrup is obtained. This is now strained through a linen bag, and the liquor is kept flowing by means of steam or hot air, and assisted by pressure. In two or three hours all the clear syrup will have run through.

The syrup thus prepared is again boiled and skimmed until it is sufficiently concentrated which is known in the following manner: The skimmer is dipped into the sirup and drawn out; some of the thik syrup which adheres to it, is taken between

the thumb and forefinger, and held there till the heat is reduced to that of the skin ; the finger and thumb are separated,and if the syrup is of a proper strength, a thread will be drawn out, which snaps, and has the transparency of horn, or rather, barley sugar: This is called the *proof*. The fire is then put out and the syrup is carried to the cooler, which is a vessel capable of containing all the syrup produced by four operations or boilings. Here the sugar is to crystalize. As soon as this commences, the whole is well mixed and stirred,and before it becomes too stiff, earthen moulds, of the well known sugarloaf shape , and of the size called *great bustards*, are filled with the crystalizing mass,of which at a time a little is poured into each. When they are full, they are carried to the coolest place on the premises. As the crystallization goes on, the crust formed on the top is repeatedly broken, and the whole is stirred till the crystals are collected in the centre : it is then allowed to go on without further disturbance. In three days it is so far advanced that the pegs which were put into the holes at the point of the moulds may be removed and the molasses allowed to run out. In a week this is mostly run off. White syrup is now poured on the top of the moulds, which filters through the mass and carries part of the colouring water with it.

T. C.

Bones — and how to dissolve them.

We have frequently referred to the value of *unburned* bones as a fertilizer. That bone dust is superior to any and every other manure purchased from outside of the farm, we are so strongly convinced by experience and observation, as well as by theory, that we buy no other fertilizer,and probably shall not,so long as this article can be obtained at anything like a reasonable price. The chief reason for our not writing more on this topic is, that the supply is so limited that it hardly seems worth while to wake up an interest in the matter, or create a demand for what cannot be supplied.

The present year we had about one fourth of an acre planted with a great variety of garden stuff, using bone sawings, (obtained from a bone comb and knife-handle manufactory) in the hill or drill *with every variety of seed*. This was put on thus at the rate of about five barrels to the acre. We held in reserve the sink-slop vault,expecting to draw largely from it. But the damp season has left no demand for watering, and as for fertilizing material, why every thing has grown so rank and fruitful that a pruning knife or hoe has been constantly needed to thin out or lop off the superabundance. We should hardly be believed, did we write down what beets, turnips, tomatoes, corn, asparagus,kohl-rabi, cauliflowers, strawberry plants, rhubarb, &c, &c., &c., we have raised. We attribute this chiefly to the bone dust, so finely pulverized that it was all ready to at once nourish every thing it came in contact with. An assistant at our elbow says, "that two to four feet trenching must come in for a share of the credit." Well, allow for that, and the bone dust still did the thing. Please turn to the articles on manure, in the first numbers of this volume, and look over the reasons there given why bones are so valuable to plants.

We said bones are scarce, and so they are, comparatively, yet a vast amount could be gathered in the country were there a general, thorough "bone-hunt" instituted upon every farm. Give the boys ten

ents a bushel for all they will collect for you, and you will soon find a cart load. There are plenty of vagabond boys in most neighborhoods who might be engaged in such a job, with profit to the community as well as to themselves and friends.

But the great difficulty is in using bones. They should not be burned, for that destroys at least seven-eights of their real value. They should not be dissolved in ashes, for that is almost as bad as burning. They are best when ground in powder—not merely crushed into small pieces. In this form (powder) they can be put directly into the hill, or drill, with seed, or around and in contact with growing plants, without the least danger of injuring them. They furnish most excellent nutriment and stimulant to all sorts of growing crops and vegetables, no matter what the kind or variety.

The greatest difficulty lies in getting them ground, since bone-mills re scarce, and few of those in operation grind the bones *finely* enough for immediate benefit. There are few farmers in the older States who could not afford to haul bones 20 or 30 miles to have them ground, but even this is impracticable in most cases. We do not know of twenty bone-mills in the country. Some get bones pulverized in a mill used for grinding tanner's bark. One of these is better than no mill, but does not grind finely enough.

DISSOLVING BONES IN ACID.

A very good fertilizer may be prepared by dissolving bones in sulphuric acid, commonly called "oil of vitriol." It is a cheap liquid, nearly twice as heavy as water, and costing, by wholesale, at the manufacturers, about two cents per pound for a ood article. At a distance the price is higher, proportioned to the expence of transportation. It is put up in large glass bottles, called carboys each holding from 120 to 160 pounds. The carboys are covered with boxes or basket work to protect them, and cost from $1 to 1.50. Sulphuric acid is a very caustic burning fluid, which will destroy the flesh or clothing wherever a drop touches. On this account great care is necessary in handling it. We knew of one severe accident from setting down the carboy to suddenly after pouring out—a portion of the liquid flew up into the operator's face. There need be no difficulty with proper care. We have used very many tuns of it for sundry purposes, and have never suffered in the least. If by chance any should fly upon the skin or clothing an immediate application of water should be made. Ammonia ("harts-horn") applied afterwards, will generally restore colors changed by it. Old garments should be worn in operating with it.

To dissolve bones in sulphuric acid, choose any tight barrel or cask —an old beef barrel will do, wooden hoops are best—and put into it, by measure, two to three times as much water as you have acid to be used. Into the water in the barrel pour the acid slowly. If all be put in too quickly a great heat will be the result. The bones, broken or unbroken, can now be packed into this liquid until they rise some distance above it. Cover the barrel closely with a board, or wooden cover. The contents should be stirred with a stick, and the bones pushed down from time to time. As they gradually disappear, more bones may be added, so as to keep the liquid filled with them. In the course of four to eight weeks the acid will cease to act. If the dissolving is required to be done more speedily, the bones should be broken into small pieces with a hammer, before adding them to the acid. Some persons have tried to dissolve bones, and become dis-

courged because the operation was not completed in a day. For large whole bones two months is often required for the complete solution, and it is better not to try to dissolve the whole. Keep the liquid filled with them, and the portions undissolved can be used in the next batch.

To use the liquid, pour it off from the remaining bones and mix it with a large quantity of dried muck, or dry swamp mud, pulverized. Almost any kind of earth, except sand, will answer to dry the liquid with, and sand might be used. The more dark colored vegetable matter it contains the better. A cart load of earth to a bushel of bones, dissolved, will be better than a smaller quantity, though one fourth of this amount may be used. Mix the mass thoroughly together and work it fine with a shovel, hoe and rake. This may be done on a floor, or on a hard ground surface. When finished, pack away into barrels or boxes to be used weeks or months afterwards.

We know of no better manure than a material prepared in this way. It is better and cheaper than any fertilizer you can buy, not even excepting Peruvian guano. It can be applied in the hill or drill, with all kinds of seed, and will speak for itself. If the dissolving process be continued until the acid is all used up, and plenty of earth be throroughly mixed in, there is not the slightest danger of its injuring seed or tender roots, though placed in direct contact with them.

The Potato Rot of 1857.

MESSRS. EDITORS—We are well aware that, after all that has been said and written upon the causes and means of prevention of this disease, we are still lamentably deficient in such a knowledge of it as may be relied upon, or made the basis of effectual efforts to arrest it. That the fruit of a dozen year's observation and speculation should be of so little value is truly discouraging. Some are so much discouraged, indeed, as to turn from all investigation of this subject with utter hopelessness, as if they believed that Providence had purposely placed a true knowledge of the causes and cure of potato-rot beyond the reach of the most prying and persevering researches of man. We cannot, however, see any good reason for such an amount of discouragement as this. The researches of the past have not been entirely without some valuable and well established results; and the general neglect of accurate observations, and of a strict logical method in arriving at conclusions, is a sufficient explanation of the little progress which has, as yet, been made in the attempts to discover the causes and the means of preventing this vegetable pestilence. We cannot yield our assent to the assertion that the knowledge sought is beyond the reach of the human faculties, and that all observing and recording of facts, are of little or no avail. We cannot but cherish the hope that more accurate and unbiased observations, and a more logical method of arriving at conclusions, will eventually lead us to as correct a knowledge of the potato fungus as we have of other diseases, whether animal or vegetable.

With this apology for venturing to present to you and your readers any addition to the vast amount that has been said and written upon this subject, we proceed to submit a summary of certain observations which have been made as to the phenomena of this disease, as it has presented itself in Great Britain during the present year. There, as here, the potato disease has very extensively prevailed, and assumed a very virulent form. The general features and

more prominent phenomena of the attack of this year seem deserving of record, as likely to afford some increase of light and some addition to the criteria whereby we may judge of the plausibility or truth of such opinions as seem most generally entertained.

We are indebted chiefly to the North British Agriculturist for the facts and observations contained in this article.

Among the conclusions that seem best established by the facts observed in former years is this—that heavy rains followed by a humid and hot atmosphere powerfully favor or rapidly develope the potato disease. In England, thunderstorms accompanied with heavy falls of rain occurred this season, in the second week in August. "On the succeeding days, observations showed that the blight had appeared, and was rapidly developing itself in the tubers. So rapid was the progress, that in many instances within ten days one-half of the tubers were diseased." In Scotland, though the vines became partially affected at the same period as the taint was being developed in England, yet up to the time of some heavy rains about the 12th Sept, few or no diseased tubers were found. "The West coast comparatively escaped, and in some districts, is at present almost free of disease, the storm of September not having been experienced. The intensity of the blight seems to have been regulated by the amount of rain which fell in a given district. It thus appears that moisture is a powerful agent; but how it acts is open to inquiry." We add that the temperature during Aug. and Sept. was several degrees above that of average seasons. Founded on the fact that the disease has frequently been developed soon after a thunderstorm, a theory has been propounded in the *Gardener's Chronicle* to this effect—that during thunderstorms the supply of nitrogenous compounds to the soil, especially nitric acid, rapidly developes the fungi which are assumed to be washed from the leaves and stalks by the rains. "This theory is at least ingenious, and is supported by the fact that in fields manured with certain applications, such as stable and farm yard manure recently applied, the disease is generally found to be early and virulent."

Another prevalent opinion upon which some light has been thrown by the facts observed during this season is, that the character of the soil upon which the crop is grown, has a powerful influence upon this disease. It has been observed frequently, and here as well as in Europe, that where the soil and subsoil were damp, the disease was more active than were the soil and subsoil were both porous. "Calcareous soils, such as those resting on chalk, have generally produced comparatively sound crops. The presence of carbonate of lime in excess, appears to be a certain specific against the development of the fungus. This season, as formerly, the crop has been less affected on calcareous than on sandy soils." The practice which has prevailed for some years of preferring sandy soils for the cultivation of potato crops may require some modification, or a reconsideration of the basis upon which it rests, as the crops on light sandy soils, on the eastern side of Scotland, are in most instances seriously affected. On the western side, however, this immuty from disease is confined mainly to the dry, porous, sandy and peaty soils.

As to the influence of different kinds and amounts of manures, nothing new seems to have been developed. Farm yard manure applied at the time of planting, is found to increase the per-centage of disease. Lime composts, and also peat and

peat compost, have been found to favor the production of healthy tubers. Ground bones, and genuine superphosphates, have been found beneficial. The results from guano have been various; but on the whole it has acted as a partial preventive. "Soot has been found of all manures the most effective in warding off the disease. When applied at the rate of several hundred weight at the period of planting, the crop has generally been large and comparatively sound. When applied on the surface after the potatoes are hoed, the preserving power seems even to be greater." An experiment has been tried with sulphur without success. The experimenter has since thought that the cause why the sulphur dusted upon the leaves of the vines did not prevent the spread of the fungus, was that the spores are first developed on the under side of the leaf. Sulphur, when applied to grapevines, is forced upwards against the leaves, by means of a machine for the purpose.

The period of planting it is pretty generally admitted, has a decided influence upon the extent and virulence of this disease. Experience is in favor of early planting, so as to admit of the more early ripening of the crop. This year's observations tend to confirm this preference of early planting, the autumnal rains, followed by a high temperature, having obviously developed or intensified the disease.

The observations of this year seem also to bear out the belief that deep covering up by the soil lessens the attack, and that those tubers which are nearest the surface are generally first attacked, and most commonly on the end of the potato nearest to the surface.

Observations made this year favor the impression that tubers which were stored previously to full maturity, or while the skin is yet thin and easily ruffled, (the skin being thicker and tougher in the matured stage,) are more favorable to a healthy growth, when used as seed, than those fully matured before storing.

The observations of this year would seem to warrant the undertaking of additional experiments with the carbonate of lime as a top-dressing, &c. Several varieties which were formerly comparatively exempt from the blight, have this year been generally affected.

Hoping that some of these observations may prove interesting or suggestive of experiments or plans that may be useful to individuals or to the public, we leave them to the consideration of all concerned. A. B. A.

Hoof-Ail not caused by Ergot.

I noticed in the Country Gentleman of Sept. 10, an article on the subject of "Ergot in Grass," in which is copied a portion of the report of the committee appointed to investigate the subject last spring in Portage Co., Ohio.

The high standing of the gentlemen composing this committee, as cattle men, would seem to forbid an humble individual attempting to correct them. I will, however, give my reasons for differing so widely from the committee as I do, as I have received many letters inquiring if there is any remedy, and if so, what that remedy is?

A preventive is the more important subject. There is no effectual remedy,* that I know of; but I know of a sure and never-failing preventive, which is very simple, and above all things exceedingly useful. It is to commence foddering hay to cattle

* The best remedy I know of is Spirits of Turpentine and Arnica.

as soon as the frost injures the grass, and as the cold weather increases, be quite sure to give them all they can eat. If not housed, the hay should be put in racks so that it will be kept clean and palatable, and be quite sure to kept a little at all times before them.

In cold weather, if straw is fed, there should be sufficient grain given the cattle to make it equal to good hay. In severe cold weather, they should be fed as late as 9 o'clock in the evening, and as early as 5 in the morning, as foddering at sundown and not again until after sunrise, would give them 16 hours to lie still, which would be sufficiently long to freeze their hind feet in such weather as we had last winter, and in the winter of 1816, and again in 1837, when we heard the most about Ergot.

The committee say:

"The first symptom of the disease which prevailed in Portage and Ashtabula counties, Ohio, seems to have been a mortification of the end of the tail, extending upwards, and resulting in a separation of the flesh from the bone. About the same time there is a purple appearance just at the edge of the hair above the hoof, followed by swelling and heat of the parts upwards to the ancle. This inflammation is confined entirely to the hind feet. The blood is usually pale and thin, the animals losing their strength, though usually retaining a good appetite till near the last. These symptoms are produced, in the opinion of the committee, by the feeding of hay containing ergot in considerable quantity. This opinion is based on such facts as these:

"The hay fed by an individual who lost a large number of cows, contained much of this article; the person from whom he purchased the hay also lost cattle from the same disease; while in both instances, cattle fed on other hay were not affected. In every well marked case of this disease, indeed, it was ascertained that the hay on which the animal had been fed contained ergot. The kind of hay in which the ergot was mostly found, was that usually called June or spur grass, growing in old meadows, the soil being generally rich, and the growth rank."

"The inflammation is confined exclusively to the hind feet." This fact alone would be conclusive evidence to a practical thinking man, that the disease, as it is called, could not follow from any thing that the cattle had eaten; on the contrary, however strong the evidence may have appeared to the commit-tee, I am convinced the injury was caused by *frost*, and not by ergot. Cattle always lie on their fore-feet, which are thus protected from the cold by the warmth of their bodies, while the hind feet are entirely unprotected, or at least one or the other, and most commonly the left foot; as cattle usually lie on their right side, the right hind foot has more protection than the left, and in those that I have seen, the left hind foot has usually been the worst frozen; and yet I have seen the right foot frozen while the left had entirely escaped; and I once saw a herd of cattle with their fore feet frozen quite as much as their hind. For some time I could not account for it; but on examination, I found that the cattle drank at a spring with a clay bottom, where the clay mud stuck to the hair, and, while wet, filled with snow, forming a coat of ice an inch thick over the leg—that they were foddered at or before sundown, and not again until after sunrise, thus permitted to lie from 16 to 18 hours half starved. The blood ceased to circulate in their legs, and the mercury needed not to be much below zero to make them crippled for life without ergot.

"The evidence here, that in both cases where the cattle fed on other hay,"

is very far from being conclusive, as the other hay may have been, and undoubtedly was of good quality, and the June, spur or spear grass, with or without ergot, was entirely worthless, as much of that kind of hay that grew during the drought of last season in Ohio, or at least in this state, was so, and that was one cause why so many farmers ran short of hay before grass; and again the evidence is not half so strong that ergot was the cause, as the simple "purchase and sale of hay" at a time of as high prices as hay bore last winter in Ohio. At least one farmer out of a hundred will scrimp his own cattle to sell, and many more will scrimp them that have to purchase. Hollow bellies make not only hollow "tails" but hollow horns, and many farriers suppose them to be a distinctive disease. The natural consequence would be, that the end of the tail, having neither bone nor blood, would easily freeze, and then mortify; and when it reached as far up as where there was bone, the flesh would separate from the bone.

If caused from what they eat, their appetite instead of being good, would in all probability be the first to fail, as that is the case with all vegetable poisons that I have ever known cattle or sheep to eat. I will name laurel as one which is a deadly poison, when eaten in sufficient quantity, unless the proper remedy is applied immediately; and yet this deadly poison to sheep and cattle, the deer feed on and thrive. It does not follow that if ergot is poison to man, that it is so to cattle, or at least to affect their hind feet and tail and no other part.*

It is by no means strange that men who have not investigated the subject thoroughly, should attribute it to ergot, as it is found on June, spur or spear grass; and of all the grass that grows, it varies most in nutriment not only in the different seasons but in the same season and on the same farm. Early as the 10th of June I have seen it on moist land in full growth, solid, heavy and full of juice which made good hay, while on a dry ridge or knoll, at the same date and in the same field, it was as worthless as bleached straw, without substance enough to keep up circulation in the legs in a severe cold night, when cattle are permitted to lie still as long as some farmers permit them to do.

In 1836, Mr. McHenry of Alleghany county, called on me and asked if I purchased cattle infected with the ergot. I informed him that I was not doing that kind of business, but would purchase any or all the cattle left in the herd that were not yet affected. I went home with him, and found many of the cattle of both McHenry and Whitney's Valley, with their kind feet badly frozen. I examined the hay which they had, which was mostly June grass, and the very worst kind at that; some of it looked as though it bad been kiln-dried before it was cut.

I purchased some sixty or seventy head, and sufficient of their poor hay to keep them four weeks, at a low figure. I collected my cattle where I purchased the most of the hay; put them in an open field, and foddered them all they could eat, and two quarts of oats each per day. It was excessive cold weather, and the colder the weather, the later at night and the earlier in the morning they were foddered. They were in a valley, and that is where cattle are much more likely to freeze than on the hill. The coldest nights they were not allowed to lay more than six or seven hours. If they would not get up to eat, they were driven

* Ergot it is said will prodnce abortion in cows. Whether this is the case or not, I am unable to say, having had no experience in the matter.

up, and not one of them was affected with ergot or frosts, and every one travelled to Bull's Head the next fall.

I saw some cattle in the yards with their feet frozen, and their owners did not know that anything ailed them; but the most surprising thing to me was, I met a farmer driving a pair of oxen, with their feet frozen as stiff as a gig, and he did not believe that anything was the matter with them, and I could not convince him that was the trouble, because they had been stabled. He most likely found out soon after a thaw. A. B. Dickinson. *Hornby*, Nov. 25th, 1852.

Nutritious Properties of Straw.

Of late years straw has been used in England for feeding and fattening cattle, to a much greater extent than had been usual in that or in this country. It is generally used in the cut or chopped state, along with turnips or other roots, or with dissolved oil cake, or molasses. With any of these additions, it is thought to answer very well as a substitute for hay.

To statements of this kind we could very readily give credence, for we have known of cows being kept in very good condition through a whole winter, while they had nothing besides straw except about four quarts of bran night and morning. Our belief in the nutritious qualities of straw has been much corroborated, however, by the reports which have recently been made public in regard to the discovery in France, of a method of converting straw into a kind of bran.

M. Jos. Maitre, a distinguished agriculturist and sheep-breeder, has succeeded after long experimental trials, in converting not only straw, but also hay, into a kind of bran or farina. The aliment which he produces, is said to be a complete substitute for bran. It has been given to sheep and lambs, and they are said to consume it with good relish. If palatable and nutritious to sheep, it is likely to be so also to all other graminivorous animals.

It seems highly probable that grinding straw into a state of coarse meal or powder, should make it much more nutritious than it is in the natural condition. This is the usual consequence of a minute division or comminution of all kinds of grain, as well as of other food. Straw converted into a kind of bran or coarse meal, must be much more easily masticated and digested than in the natural state. If even the mere chopping of straw adds greatly to its nutritious powers, as is, commonly supposed, how much more must such a complete comminution of its substance as is effected by the process referred to. The *modus operandi*, or manner in which this benefit is secured, is common to both processes, though to the one in greater degree than to the other. Both processes facilitate the digestion of the straw in the stomach, and the extraction of whatever nutriment is contained in it.

Until M. Maitre shall supply us with some of his mills for grinding straw, let those who use it, either in the cut or uncut state, be sure that they add to it or mix with it enough of meal, roots, bran, or other nutritious matter, to make it equal to good hay, or a little better even, so far as the satisfying and keeping of his creatures in good condition are concerned.

Early Hatched Chickens.

Some think, and probably with truth, that chickens hatched early in the season, are more vigorous or thrifty in their growth than those which come later, and that at

Thanksgiving or Christmas they are much more than a month's growth ahead of those which may have been hatched a month or even three weeks later. To rear poultry very early in the season, the poultry house should be in the cellar of a barn, or well sheltered in some other way, and warmth and sunshine secured by windows on the south side or by southern exposure. Something may be accomplished towards securing a brood which will be able to endure cold by selecting eggs of the best breed and largest sized hens, and also by selecting for setting those hens which are young, fat, and finely feathered, as such are capable of imparting more heat to the eggs and to the newly hatched chickens. That all may be duly sheltered and warmed under the mother there should not be over one dozen in an early brood. As soon as the chickens are hatched they should be fed on crumbs of wheaten bread, and on wetted and broken hard-boiled eggs chopped up fine. The quantity of the latter need not be increased as they increase in size, if they be strong and healthy, but if otherwise, it should be increased. Dough made of Indian meal, buckwheat and oatmeal mixed—(a mixture now very common in some districts for cakes, and relished by many much better than cakes made from buckwheat flour alone)—may be substituted occasionally for bread crumbs, after a few days, or mixed with the crumbs made soft and fine. In the course of a week chickens are generally able to swallow quite readily shrunks and small kernels of wheat; and having used wheat for several years in rearing chickens, we have become convinced that they thrive better and grow faster on this than on any kind or form of grain which we have ever used. They are also less subject to disease when fed on wheat with occasionally some animal food, and a chance to pick grass or young leaves of some kind, than they are when reared chiefly on Indian meal, milk, &c.

After ten days or two weeks they may have a greater range of food, as animal food, not salt, chopped quite small, and early leaves of dandelion &c., or sprouts of cabbage or turnips also chopped. Up to the age of three weeks chicken should be fed at least four times a day. They should have space to run around the mother's coop, but should be prevented from getting wet. The floor of the coop should not be the damp earth, but a dry board or shelf which can be withdrawn and cleaned.

By such means one may have *extra large* chickens or turkeys at Thanksgiving and Christmas.

AGRICULTURAL SOCIETY

OF THE

County of Montmorency.

The above Society will hold an exhibition of grain and other agricultural produce at St. Joachim, on the 12th of January next.

By Order,

L. O. ROUSSEAU.

Sec. Trcs. A. S. C. M.

Crown Lands Department.

Toronto, 10th December 1856.

NOTICE is hereby given that about 21,800 acres of Crown Lands in the 4th., 5th, 6th and 7th rangs 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 October 1857.

BAROMETER.

	F	inches
Mean reading of the barometer corrected and reduced to...	32°	30 224
Highest reading of the barometer corrected the 3rd day		30° 179
Lowest reading of the barometer corrected the 11th day.		29° 308
Monthly range.....		0° 916

THERMOMETER.

Mean reading of the standard thermometer.....	44° 19
Highest reading of the maximum do the 8th day.....	70° 0
Lowest reading of the minimum do the 22nd day.....	23° 6
Monthly Range.....	46° 40
Mean of humidity.....	0° 855
Greatest intensity of the suns rays.....	98° 4
Lowest point of terrestrial radiation	21° 1
Amount of evaporation in inches.....	3 86

Rain fell on 10 days amounting to 6,823 inches, it was raining 90 hours 56 minutes and was accompanied by thunder on 3 days.....

Most prevalent wind N. E. by E.....

Least prevalent wind N.....

Most windy day the 26th day, mean miles per hour..... 28 m.. 78

Least do do the 14th day do do 0 03

Ozone was present in large quantity .....

Aurora borealis was visible on 5 nights.....

Montreal Market Prices.

CORRECTED BY THE CLERK

OF THE

Bonsecours Market.

Montreal, Dec. 28, 1857.

Flour, Country, per quintal,		15 0	to 15 6
Oatmeal,	do	12 0	to 12 6
Indian Meal,	do	0 0	to 0 0

GRAINS.

Wheat, per minot,		3 4	to 3 6
Barley,	do	3 0	to 3 0
Peas,	do	3 9	to 4 6
Oats,	do	1 10½	to 2 0
Buckwheat,	do	2 3	to 2 6
Lower-Canada Indian Corn,	do, yellow	0 0	to 0 0
Rye,	do	0 0	to 0 0
Flax Seed,	do	5 0	to 5 6
Timothy,	do	9 0	to 10 0
Bran,	do	0 0	to 0 0

FOWLS AND GAME.

Turkeys (old) per couple,		9 0	to 10 0
Do (young)	do	3 9	to 6 0
Geese,	do	4 6	to 6 0
Ducks,	do	2 6	to 3 0
Do Wild,	do	2 0	to 3 9
Fowls,	do	2 0	to 2 6
Chickens,	do	1 10½	to 2 0
Pidgeons, Tame,	do	1 0	to 1 3
Partridges.	do	2 0	to 2 6
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 3½	to 0 10
Pork, do		0 6½	to 0 7
Mutton, do		0 5	to 0 7
Do per qr.,		1 8	to 6 0
Beef, per 100 lbs.,		30 0	to 45 0
Pork, fresh, in carcass,		47 6	to 60 0

DAIRY PRODUDE.

Butter, Fresh, per lb.,		1 3	to 1 3
Do Salt	do	0 9	to 0 10
Cheese (skim milk) per lb		0 4	to 0 5
Do (sweet)	do	0 11	to 1 0

VEGETABLES

Beans, American, per minot,		0 0	to 0 0
Do Canadian.	do	7 6	to 8 0
Potatoes, per bag		2 6	to 3 9
Turnips,	do	0 0	to 0 0
Onions, per minot,		4 6	to 5 0

SUGAR AND HONEY.

Sugar, Maple, per lb.		0 6	to 0 6
Honey,	do	0 7	to 0 8
Bee's Wax	do	1 3	to 1 6

MISCELLANEOUS.

Lard, per lb.,		0 9	to 0 11
Eggs (fresh) per dozen,		0 8	to 0 9
Halibut, per lb,		0 6	to 0 7
Haddock,		0 0	to 0 8
Apples, per barrel,		15 0	to 20 0
Oranges, per box,		0 0	to 0 0

Re-Organization

OF

AGRICULTURAL SOCIETIES

IN

LOWER-CANADA.

NOTICE is hereby given that all the County Agricultural Societies in Lower-Canada, will have to re-organize under the *Act* 20 *Vict. Chap.* 49, *Sect.* 4. "The first meeting in each County shall be called by the *Warden* of the County at the *Chef-Lieu* where there is but one society and at the most frequented place within the territorial limits where there are two societies, IN THE THIRD WEEK of JANUARY one thousand eight hundred and fifty eight after notice of the object, and the *time* and *place* of such meeting, publicly given in the newspapers of the County, or by placards posted up in different places in the County for at least one week previously, and the society, then and there organized shall be, and be held to be, the County Agricultural Society."

A copy of the proceedings of such meeting, certified by the Warden of the County, the President and Secretary of the Society shall be sent at once to the Board of Agriculture, Montreal.

T. CHAGNON,
Secretary pro-tempore,
Board of Agriculture,
Lower-Canada.

Montreal, december 1st, 1857.

Crown Lands Department.

TORONTO, OCTOBER 27TH, 1857.

NOTICE

IS hereby given that about NINE THOUSAND ACRES of LAND in the 5th, 6th, 7th, 8th and 9th ranges of CHERTSEY, County of Montcalm, L. C. will be open for sale to actual and intending settlers at ONE and SIX per acre on and after the 30TH OF NEXT MONTH, on application to A. DALY, Esq., AGENT at RAWDON in said County.

November 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 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 Setlement.

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 Settler, 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 Massanoka, 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 parallel 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 extent 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 whatever 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 be 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 whith 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 full 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 neighborbood 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 ressources 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 worke 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.