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# The Farmer's Journal,

—AND—

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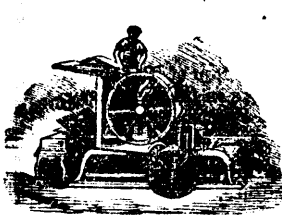
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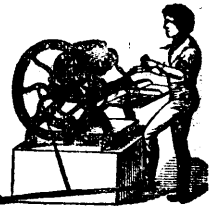


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Montreal, September 1857.

# The Farmer's Journal.

MONTREAL, FEBRUARY 1858.

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## February.

Since about two weeks the bridges over our rivers are completed in all directions, and the farmers have been able to bring their produce to market, and sell it at very high prices, as can be seen by the Montreal Market prices published below.

The principal work of the farmer in the winter is to attend to his stock, thrashing, taking manure out to the fields, where required for use in spring, &c. This is the time for the farmer to provide wood for his fences, and fire-wood for next winter. All that can be done in winter, should be done, for in spring and summer farmers have a great deal to do.

Animals of all descriptions that are exposed to very great cold, will, undoubtedly, require more food to support them in good condition than they would in moderate weather. Farmers must attend to this, or their cattle will fall off in their condition. A small quantity of oats given to them daily would maintain their strength and condition, for this grain, besides producing a great degree of warmth to the animals, is very fattening in its nature. It is preferable to feed it boiled. Cut straw has a tendency to confine the bowels, we are told; then boiled linseed should be sprinkled over it. Warm stables, good and sufficient food, and plenty of pure water, are the most essential requisites for stock during winter. It is certainly with pleasure that the farmer sees his cattle in good con-

dition in the spring; why then does he take no care of them during the winter? He has every thing at hand to feed them well, and plenty of time to see that they are kept clean, in warm and well ventilated stables. Straw is abundant, let them have good litters; it will not be lost—you will have good manure in the spring to fertilize your fields, and an abundant harvest will be the reward of your labours.—Ed.

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## Improvement in the Breed of Horses.

A correspondant, in submitting to us an inquiry connected with the topic on which we have recently published a series of papers, has in fact pointed out an omission which we had made in that series, so that we are not only happy to reply to his question, but are glad that by preferring his request he has given us an opportunity of rendering the papers in question more complete and satisfactory. The point to which he has called our attention, and on which he desires our opinion, is the propriety of breeding from the Arab horse, several of which he suggests have been recently imported into the United-States, and are now before the public.

It is an indisputable fact that all the excellence of the English and American thorough-bred horse is derived from Oriental blood of the desert; and originates, it is believed in the admixture of the various breeds of the several countries to which the horse, in its purest and highest form, has from remote ages been indigenous. These countries are Arabia, Syria, Persia, Turkistan, the Barbary States, Nubia, and Abyssinia, all of which have races nearly connected with each other, but all

possessing distinct characteristics. There would appear of these races to be in the English thorough-bred horse—with which the American is identical—a larger proportion of Barb than of pure Arabian blood. The celebrated Godolphin is generally considered by the most competent judges to have been a Barb. Fairfax's celebrated horse was a Barb; Grey hound was a Barb; the old Morocco mare, was a Barb; the Royal mares imported by King Charles II, to which ninetenths of our modern thorough-bred horses trace, were Tunisian or Tangier Barbs. The other most famous progenitors have been Turks, as the Byerly Turk, the Lyster or straddling Turk, the Darcy yellow Turk, Plai-ce's white Turk, and many others. The most noted of the pure Arabians was the Darley Arabian. And it is, perhaps, the most considerable opinion that the great and unrivalled excellence of the English horse arises from the fact that he is the offspring of a judicious cross of all the best Oriental races, and not the produce of a system of close in-breeding.

It is worthy of remark, however, that although the fact is universally admitted that the whole original excellence of the English thorough blood is attributable to the blood of the desert, and although no horse is to be held as thorough-bred unless he can trace in both lines, paternal and maternal, to that blood, and although many horses of various Eastern and African breeds have been constantly imported both into England and America during the last two hundred years, no one of them has improved the breed of race-horses within the last century, or perhaps two centuries. So low at present does modern Arabian blood stand in the estimate of English turfmen, that a horse begotten by a Turkish, Arab, Barb or Persian stallion, on an English thorough-bred mare, receives,

in the Goodwood Cup and other races in which allowances are given, 24 lbs. from all English-bred racers; and a horse begotten by such a stallion on a mare of any one of the same races, receives the enormous advantage of 48 lbs. The facts that even with this enormous advantage no horse so bred ever wins any plate or race of consideration, shows that the distaste to the blood is not a prejudice, but is founded on valid reasons. Why this should be so is not so clear. It appears, however, to be a certain and fixed rule of breeding, that in order to improve any race, the higher and purer blood must be on the sire's side, not on the dam's; and that he must be the superior animal. It is, we think, now an indisputable and undeniable fact that the English thorough-bred horse is in all respects, but especially in size, bone, power and beauty, a superior animal to any of the Oriental races, and consequently that his blood cannot be improved by any farther admixture of that strain. Why this should be so cannot clearly be shown; but it arises probably from two causes: first, that as the Mohommedan race has degenerated in intellectual energy, in civilization and in power, the breed of horses used by that race has suffered a corresponding deterioration. owing to the want of intelligent breeding, of care, of management, and to the inferiority of their food, stabling and nurture; and, second, that the English and American descendants of the same horses have, by the vast attention given to breeding them only from the best and most choice parents, to their more generous nutriment, better housing and clothing, and to the enlightened and scientific culture which they have long received, been improved in proportion to the deterioration of their ancestors.

No intelligent sportsman doubts that the English and American

'through - bred horse can beat the Oriental horse anywhere and everywhere, and in all respects. In Hindostan, at the European races, the whole-bred and even the half-bred English horses invariably beat the Indian Arabs; and very recently an English mare, named Fair Nell, disgracefully beat all the Egyptian Barbs of Ali Pasha, who had challenged the English Jockey Club to a trial match between English and Oriental horses for a prize of £10,000. The Jockey Club declined to take up the match collectively, because as a body they do not own race-horses, and individually, because the risk of ruining the best horses in a race of eight miles, which was proposed, over the rough and stony or sandy desert, was held rightly to be too great to justify the sending of animals of great value to a distant and barbarous country. The English residents of Alexandria and Cairo, however, excited by national spirit, and provoked by the triumphant tone of the Orientals, resolved to test the question. The Irish mare "Fair Nell" was selected, which was not a racer of any note or distinction, and about which there is now some dispute whether she is or is not actually thorough-bred, though she is known to be very highly and very well bred; and the result was that, vastly to the disgust and disappointment of the Egyptians, she defeated all the best Arabs of the Pasha's stud with perfect ease. It has been asserted and is constantly urged by the favorers and defenders of Oriental blood, that no horses of really superior qualities or decided excellence, as Arabs or Barbs, have recently been imported; and that to this, and to no natural or general inferiority of the Arab or Oriental horse, is the want of success in breeding from him to be attributed; and, as a matter of course, every one who imports an Arab or Barb, asserts that his horse, and his only, is a real

and superior-blooded animal. The plea is not, however, a valid one; for it is not likely, when a great majority of the horses imported from the East, into both England and America, have been gifts of Oriental potentates to crowned heads or presidents, that no one of them should have been a valuable creature. Still less is it likely that obscure and comparatively unknown modern travellers should have succeeded in securing better blood than the lavish expenditures and scientific knowledge of the richest of European individuals and the most enlightened and powerful of European governments. It is clearly the sounder opinion that the modern thorough-bred horse of Oriental origin is a superior creature to the modern Arab; and consequently it is clearly unwise to attempt to breed thorough bred mares to Oriental stallions, or to breed any highly-bred mares to such stallions, in preference to the best thorough bred. Still it appears not improbable that the general trotting stock of America might be improved by crossing with good Arabian or Barb blood, where the best thorough-blood, combined with fine form and power, is not to be attained. We are even impressed with the idea, that with some half-blooded breeds, such as the Canadians and Normans, both of which have a large, although a very remote cross of the African Barbs of Andalusian breed, a recurrence to the original, undiluted Barb or Arabian blood might be preferable even to breeding from modern thorough-breds, on the principle, before referred to, of having, after many years or centuries of out-crossing, recourse to the original strain of blood, which is often found to *nick*, as it is technically termed, when it succeeds highly. It is worthy of remark that some distinguished trotting horses trace to Black Bashaw, who was a pure Barb of Tripoli, and who is

said to be a horse of great beauty and power. The Canadians and Normans both show far more similitude of structure and form to the Arabs and Barbs than do the modern thorough-bred horses, and that is a strong reason for believing that such a cross might prove successful. Half-bred horses between the Indian Arab and English half-bred mares, have been found to answer admirably for cavalry horses, and are used for that purpose exclusively in the Anglo-Indian service. The 10th Hussars, mounted on animals of this stamp, attracted great attention in the Crimea, where these horses of two or three thorough crosses, although inferior to them in speed, in length of stride, and in weight in the shock of battle. The same remark applies to the half-bred Algerine Barbs, ridden by the French *Chasseurs d'Afrique* and *Chasseurs Indigènes*, most of which, it is said, are bred from mares of Normandy or Picardy; and this would encourage the hope of success in breeding from Normans and Canadians to horses of Oriental blood. We should like to hear of the experiment being tried, and although we should not care to predict perfect success, we should rather anticipate a good than an evil result; we would, however, on no account put a thorough-bred mare to any Eastern horse, nor any very highly-bred mare, where a thorough-bred stallion is within reach. Of course, the boniest, most compact and strongest Arabs should be selected; an Arab *weed* of inferior strain is a very poor creature for any purpose, and worst of all from which to breed. From what we have heard of the Nolan Arab, and from the consummate knowledge in horse-flesh of his gallant owner, we should augur as well of him as of any recent importation from the East. We should not be surprised if, in future days, material improvement in the horse-

flesh of the West, where there has been; until very recently, a great want of thorough blood, may be traced to that horse.

We have thus answered, to the best of our judgement, the question of our correspondent, and shall be happy at any time to give any information we may possess on this interesting and important subject, which we rejoice to see is now attracting much attention throughout the country.

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### Accommodation for Horses.

Now that the winter is arrived, we have a few words to speak in behalf of that noblest, and most abused of our domestic animals, the horse. That sign which used to hang out upon country taverns of the old school "Accommodation for man and beast" was usually a great fraud upon the public at least in the latter part of its promise. The accommodation for the horse was generally a narrow stall, in an over-stocked stable, with a hard plank-floor, and a mere apology for a bed of straw. Here, after a long day's work upon the road, old Dobbin was expected to refresh his weary limbs. The thing was impracticable in that atmosphere, foul with the breath of twenty other tired horses, and with the effluvia and ammonia coming up from the saturated floors; and upon these hard planks, where the weight of the horse made a firm pressure upon the wearied muscles, as he lay down to sleep. There was no chance for that relaxation of the muscles, which is as necessary to the brute as to man.

At home the horse was little better off, except that the stable was not full of horses, and he had a better atmosphere to breathe. There was the same hard bed, and the same pungent smell from the filthy floors.

Not one horse in a hundred is properly accommodated in the winter. In the summer, when turned out to pasture, they resume their natural habits in some measure, and regain that health which is so often lost in their winter confinement. The benefit of the summer pasture is more owing to the change of food than to the change of atmosphere and bed. The horse, in his native condition, breathes the pure air of the prairies, and has under his hoof continually the soft turf. When he lies down it is upon a bed of grass, which yields to the pressure of his body, and puts every muscle at ease.

Now, we believe, that all the conditions of the pasture can be supplied to the horse in his stable, and that he can be kept in the highest health and spirits in the barn the year round. We speak now of horses upon the farm, where green fodder is accessible for a part of the year. In the city, though their condition might be ameliorated, it cannot be entirely remedied.

The horse can have as pure wholesome air in the barn as he has upon the prairie, without any exposure to keen winds and storms that assail him in his natural state. Barns are generally constructed without any attention being paid to ventilation. The walls are nearly tight, and not unfrequently the supply of hay is stored in the mows over the stables, so that all the foul odors escaping from the lungs and bowels of the horse are absorbed by the hay, until it becomes unfit for food. He is compelled to breathe over, many times, this foul air, and finds no relief except when he is taken out of the stable. Is it any wonder that horses become diseased under this treatment, and die prematurely?

A barn should be constructed with ventilators, of a size corresponding to the number of animals it is designed to accommodate, so that the air

will be changed as fast as it is breathed. The best bedding we have ever found for a horse is a coat of dry peat, muck or sods, covered with straw. It should be a foot thick, and the drier the better. This makes a soft warm bed, and while it accommodates the horse in the best manner, it furnishes in the course of the year an enormous quantity of manure. The straw, and the solid feces are removed every morning, and all the liquid is immediately absorbed. The stall should be at least six feet wide and about a half cord of muck will make a good bed. This will last nearly two weeks before it becomes so saturated as to emit the smell of ammonia. A horse stable should always be as sweet as a parlour, and it is a constant waste for a man ever to have it otherwise.

#### ONE BARN TO A FARM.

Some farmers err in having too many barns scattered about their premises. Some of them are a half or three quarters of a mile from the house, and in the winter they have to take a journey twice, daily at least in the cold, to fodder the cattle. This is a great waste of labor, and the cattle usually suffer from neglect unless the owner sees to the feeding in person. One barn indeed involves a good deal of carting of hay and of manure, but this is a small evil in comparison with having the cattle at a distance in the winter. Stock, in order to do their best, should not only be housed in winter, but should be fed thrice daily, and at regular hours. Much of the fodder is wasted if they are fed at longer intervals. If fed at irregular hours they suffer from hunger, and become impatient.

#### THE CARTING OF MANURE

may be saved, in part, in making a portion of your compost upon the field where you design to use it. The



meadow, for instance, that you design for corn next season, may be furnished with muck heaps for the making of compost this fall. The manure may be drawn to these heaps and mixed now, or early in April. If covered immediately with the muck and protected from washing, the manure will lose little of its value, and the work in spring will be hastened.—*American Agriculturist.*

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### Make the Manure.

Now is the favorable time. The stock has done roaming in the pastures, is sheltered at night, and perhaps during the day, or is allowed at most, only a part of the pleasant weather in the open yard. At any rate, it is so compact as to bring its droppings into a comparatively small space, where they can be easily collected and incorporated with other matter. How it shall best be kept from waste is a question of importance.

We cannot all have barn cellars just as we wish, nor all the materials we may like, to mingle with the fresh droppings. But much may be done to prevent waste when we have become fully convinced that *there is a depreciation in manure when it is neglected, and consequently a money loss to its owner.* To those who do not believe in loss by evaporation or drenching, our words are but idle utterings—but to those who entertain that belief, a few suggestions may be profitable.

There is no substance within our knowledge which is cheap and abundant, that will absorb and save the liquid portions of manure, and prevent the escape of ammonia, like the muck which is found all over New England, in swamps, meadows and even in many valleys and uplands. When it has undergone fer-

mentation, it greatly resembles pure cow dung, and the best of it is nearly as valuable as the cow dung itself. Most of our farmers have access to this, and we will therefore speak of it first.

Where there are trenches behind the cattle when tied up, it is a good plan to scatter dry muck two or three inches deep, so that it may receive the droppings while they are warm in this way the muck takes up nearly all the fluid parts, and retains them until the whole is passed through the opening into the cellar, when the process of "cleaning out" mingles the mass more intimately. This, however, *is not enough*,—for when a considerable heap has been accumulated below, if nothing more is done, drainage and evaporation both take place; the gaseous parts speeding their way upwards, and the fluid soaking into the sand or gravel, which compose the bottom of the cellar, or flowing down some channel which they make, perhaps, by their own specific gravity.

Near by the dung-heap there should be a pile of dry and finely pulverized muck, and as often as every other day the droppings should be levelled a little, and then covered to the depth of an inch with muck. When this is carefully done, there will be little or no flavor from the stalls where the cattle are tied, or from the heaps themselves,—a pretty convincing evidence that there is no fermentation going on and no waste by evaporation. The eye must detect whether there is any loss by leaking or drainage. If there should be, a more liberal quantity of the muck must be supplied.

Under this treatment the manure heap will be kept compact and neat, nearly all its valuable properties retained, and when removed, will present a black, exceedingly rich and unctuous paste, that may be cut through with the shovel with ease.

In this condition, if *one-half* of the mass is muck, we have no doubt the whole will be worth more per cord than an equal amount of the clear droppings under the ordinary neglect which it suffers.

If muck is not convenient, or cannot be obtained, use loam, or even pure sand.

Good muck, then, demands our first attention, but as all cannot well obtain it, they avail themselves of other things worthy of especial attention. *Dried Leaves* are excellent, as they are not only valuable as an ingredient for manure, but serve an important purpose as litter or bedding for stock. They may be gathered on many farms at little expense, and will amply repay the cost of collecting and using them.

*Sawdust* is another article extensively used, and where horses are kept that are not at work, a coat of this applied once or twice a day, and allowed to remain for weeks or months without disturbing the heap, will prove highly valuable. Much labor of cleaning out will be saved, and the horse will thrive better and his feet keep in a healthier condition than if standing on the dry, hard flour.

*Spent tan* is another article, and, if fine and old, will answer a better purpose than nothing.

But there are some farms where none of these can be cheaply obtained in quantity, and in such cases they have but one material to which they can resort, and that is the common *loam* of their fields. Where this is the case, we would recommend the same use of it as we have suggested for the meadow mud. On nearly every farm loam may be collected from the side of walls where it has been turned by frequent plowings and left in excess, becoming rather an injury to the farm than a benefit, by encouraging the growth of bushes or rank weeds; or it may

be taken from walks or badly incensed headlands, or in rich places in pastures or by the roadside. Men who are attentive to the acquisition of manure, this vital interest of the farm, will find a deposit somewhere, which will enable them to increase their winter heaps, and consequently their annual crops.

We cannot suggest anything to the farmer which will be of so much real service to him, as to induce him, if we can, to *give more attention to the saving and increasing his stock of manures.* — *New England Farmer.*

### Grinding Feed.

Experimental farmers have long urged the importance, and even necessity, of chopping or grinding hay, as well as other feed, for cattle and horses. The lazy drones have had a hearty laugh over the idea, and called it "Book Farming."

Now the theory of chopping, and grinding food, is based on a principle which lies at the foundation of animal physiology. Rest is essential to the accumulation of muscle, as well as fat. If we wish to increase an animal in flesh, or fat, we do not work him.

Now a cow wants one-thirtieth of her own weight in hay a day, to keep her in good order; and we may thus calculate the amount of labor required to masticate the food, and fit it for the stomach. The labor of chopping, or grinding twenty-five pounds of dry hay a day, is no small item. This excessive labor is performed by one set of muscles—the jaws; but, by sympathy, affects all the other muscles; causes the blood to circulate quicker; the breath faster, consumption of food greater; and still the growth of the animal is retarded.

If a machine was invented to grind hay, the ground article would approximate, in value, to unground oats,

in producing fat and muscle. Chopping hay and stalks is valuable just in proportion as it approximates to grinding, and relieves the animal of the labor of grinding it. An animal fed on ground, or minced food, may perform an amount of labor equal to grinding it fit for digestion, and grow fat as fast as another which does not labor, but grinds its own food.

Prematurely grey whiskers and beard, while the hair is still black, show the relative amount of labor performed by the jaws and the head.

—*Ohio Farmer.*

### Cultivation of the Potato.

Although the "potato rot" proved less destructive the last two years, than for some years previously, yet it has by no means disappeared, nor can we expect with any confidence that it will not recur. The conclusion to which we have come, being in our opinion the most philosophical, as well as most consistent with the established facts of this mysterious visitation, is this: the potatoe has been weakened in constitution by an unnatural system of cultivation, and thus rendered susceptible to disease, which in the case of the rot, was induced by a peculiar condition of the atmosphere, electrical or otherwise. If this be the true theory it is obvious that a more rational system of cultivation must be resorted to, in order to restore the plant to a normal and healthy state. And whether this theory be true or not, an improved and more rational treatment of the plant must prove highly beneficial.

In a late number of the *Country Gentleman* an excellent paper issued from the office of the *Albany Cultivator* by that veteran of the agricultural press, Luther Tucker Esq., we find some remarks on the cultivation of the Potatoe by a Mr. L. C. Ro-

berts, who appears to understand the subject practically as well as theoretically. We subjoin the article for the benefit of those who may wish to improve their potatoes. His theory is, that in order to raise healthy potatoes the seed root must be healthy. If we follow the laws of nature, we should let our potatoes remain in the ground during the entire year, instead of storing them in our cellars for five or six months. It is strongly contended that the disease commences with the old tuber—that it undergoes a process of fermentation, and as a necessary consequence, the stalks will throw off a very noxious and unwholesome gas. The cause of this disease seems to be a transgression of a natural law. Nature designed the earth as the place for roots, and man has made a great mistake in not allowing them to remain there but about half the year. Potatoes deteriorate rapidly in quality by keeping them out of the ground; and by adopting this course of culture for years, the root loses some of its component and vital parts, so that, in the course of time, it has become enfeebled and lost its native vigor.

Mr. Roberts gives the following directions:

"Get seed roots, select one fourth acre arable land, (on which water will not stand) on an eastern slope, new land is the best for this use, fit early in the spring; furrow four or five inches deep, and two feet apart. Select seed roots that are about the size of a hen's egg, that have touched the ground during the previous winter. Do not cut them; drop one every six or eight inches apart, in the furrows; cover them by filling the furrows, and then put a top dressing of two inches of straw, or forest leaves on each row, when the tops are two inches high, pass between the rows with a shovel plow: follow with a hoe destroying the weeds, and leveling the ground; but do not hill.

You have nothing more to do until fall, when the ground begins to freeze, then cover with half rotten straw, chaff or forest leaves, three or four inches deep. Your potatoes will now have a chance to ripen and rest during the winter.

I shall now direct you in planting for culinary use, next season. The spring following, before your potatoes sprout, you will plant another seed patch, as above directed. You will now take the residue, and plant a field crop for culinary use. Plant in drills, four or five inches deep, and three feet apart; drop a potato every eight or ten inches, cover by filling the furrows: cultivate or hoe twice. In this way you will get the greatest yield and best quality. Continue a similar practice from year to year, and from my own experience, I believe you will find your potatoes yearly increasing in yield and quality.

“The third year you may increase your field crop, by plowing in fine manure. You have now had nature's course pointed out to you; her own laws are truths; and I humbly believe, I have given them a just exposition. All who follow my directions will, the second year, see many seed balls, on the vines on their seed patch. These may be planted in the fall as I have done, and cultivated carefully, and good will undoubtedly result from it, if pursued in nature's own way. The potato will grow wild in our forests if planted in them, and thus save those the trouble, (who wish to get the wild root,) of resorting to their native forests in South America. Finally, we may apply nature's laws profitably to most other products. Seed of every variety, should be fully matured, i. e. not harvested until fully ripe. That which approaches the nearest to perfection should be selected for seed; and all roots for seed purposes should remain in the

ground, were they grew until they bear seed; this will make the seed mature earlier, and make the most perfect of its kind.”

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## The Things I Raise.

### SWEET POTATO.

This crop is one of uncertainty, though, if started early in hot-beds, and set out on dry, sandy land, you are pretty sure of getting a fair crop of potatoes of good quality. Two years ago my sweet potatoes were better in quality than any I could buy. They are not profitable, however, as I raise them, purchasing my slips in Boston at a dollar a hundred, and have from twenty-five to fifty per cent, of them die, and then the risk of the season for the remainder. I think on a light, early soil, with my own plants started early, I could make it profitable growing this crop. Those persons who raise the slips make a large profit, as each potato yields so many slips; for as soon as one set is removed others appear, and so on.

### DIOSCOREA BATATAS, OR CHINESE YAM.

There has been a great noise made about this new tuber, some claiming that it will entirely displace the potato, which, of late years, is so liable to rot, while this yam is not at all subject to that evil. I believed it a humbug, but purchased two roots of Messrs. Hovey & Co., last spring, for which I paid fifty cents each; these were planted whole, being about fifteen or eighteen inches long, and one or one and a half in diameter, in the largest part. These yams do not grow as some other sorts of yams, horizontally in the ground, but they run down like a parsnip, being, as the boy said of the slip iron, “biggest at the little end,” that is, they are quite small at the surface of the

ground, and continue small for eight or ten inches, when they begin to grow larger for the next eight or ten, and then taper off very fast in the next three or four inches to quite a short point in some instances, while in others they are largest at the extreme lower end. The color is white outside and in; when boiled, of a bluish white, like boiled rice, and having much the same taste; sticky and starch-like, not mealy like a ripe potato, though I presume they would be where the season was long enough to allow them to ripen. The tops or vines trail on the ground like the sweet potato, running often twelve or fifteen feet, and are readily eaten by cattle. They may be staked up like pole beans, or left to run over the ground.

The root that is planted decays, and other tubers appear, from one to three in a hill, often not more than one, but that of a large size; one of my roots yielded two yams that weighed together four pounds, the other one weighed two and a half pounds. On the tops or vines were produced scores of little seed yams that will answer for next year's setting. The yams may be grown from slips like the sweet potato, or cut in pieces and planted like the common potato, or from the little seed yams. It requires three years for these small ones to become large. It is said that they will remain in the ground through the winter without injury, but I have not tried it. It seems to delight in a deep, rich, sandy loam, though I should not advise putting strong manure in contact with the tubers. I have changed my mind somewhat, in regard to it, and would recommend it for further trial, though I think it is much easier and cheaper to grow potatoes, if they do not rot. I intend to plant a few next season to test them more thoroughly. I would here caution all those who grow them for the first time to be careful in dig-

ging them, for they are very brittle, and snap like pipe stems; they cannot be pulled on account of the form, but must be dug out, which work is very much like digging a well, for they often extend down twenty-five to thirty inches. An immense quantity could be grown on an acre, for they take up but little surface, the roots invariably tending downwards.

JAMES F. G. HYDE.

Newton Centre, Nov. 10th, 1857:

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### Cure for Lice on Cattle, Colts and Pigs.

During winter, farm stock are apt to get lousy. The following articles will drive away, or kill the lice:

1st. Soft grease, of any kind, and Scotch snuff—an ounce of snuff to a pound of grease—mixed and rubbed in among the hair, on the affected parts. If you have not the snuff, use the grease without it. It will effect a cure. We have tried it.

2d. Powdered charcoal, or coal dust, sifted into the hair.

3d. Ashes from the blacksmith's forge, sifted into the hair.

For lice on swine, or pigs: Pour buttermilk along their backs, freely, so that it will trickle in little streams down their sides.

These have all been tried, with entire success, so that no one need have an excuse for lousy stock.

If sheep get *ticky* during the winter, open the wool along their backs, and sprinkle in a little Scotch snuff, from the head to the tail. A tablespoonful is quite enough for the largest sheep, and from that down to a teaspoonful for a lamb.

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## Correspondance.

To the Editor of the *Farmer's Journal*.

SIR. -- The wintering of cattle must be a matter of great importance to the Canadian Farmer when we take into consideration that his cattle is almost entirely dependant upon his providence and care, from October untill May, and that if not properly fed and cared for during that long and cold period, they will be found by the end of Winter to be in such poor condition (if they get through at all) that their owners can derive little or no benefit from them during the ensuing summer, as it will require almost the whole of the summers feeding, to restore the loss of condition caused by the previous winter starvation.

Being persuaded, that you will be willing to give a place in the pages of the *Farmer's Journal* to any communication of however simple a nature, or from howsoever humble an individual, if you should think it in any measure likely to awaken the Farmers of Canada to a sense of their own interest, I will venture to offer a few remarks on the winter management of cattle drawn from my own observation.

It is a common but a sensible saying that if you wish to end well begin well; now that the wintering of our cattle may end well, those who have no care of them must begin much earlier in the fall to feed and protect them from the cold, than is the common practice with the farmers of the locality in which I live. So long as the earth is not covered with snow, the cattle in general are turned away to the field, or woods to shift for themselves, this is a most pernicious practise and exceedingly detrimental to the health and condition of the cattle, and should never be resorted to but in cases of great

necessity. Many of the farmers think that by these shifts they are economising, especially in such a season as the present, when hay and straw is selling at a high price, but they may learn by and by that there is truth in the proverb, that says "its not all saved that's put in the pocket," while they are saving their hay, they are at the same time generating the seeds of diseases amongst their cattle, that will develop themselves in carcasses of carrion about their barns before the month of May. If remonstrated with on these kind of doings, the reply is that the cattle comes home fuller after a days browsing in the month of December than they did in the month of June, and that they can have no more need to be fed from the hand now, than they had then; here the premises are true, but the conclusion is false; that there is a constant worst-going-on of the animal frame and that worst must be supplied by the food that the animal consumes are facts that are admitted, by every one that ever passed or thought on the subject. A moderate quantity of grass consumed by a healthy ox, in the month of June, will not only supply the waste but will from day to day increase his weight, but if left in November or December to feed himself on any frozen or withered herbage that may come in his way, although he may cram his stomach, to ever so great an extent which he will do almost to suffocation, yet it will be evident that he is every day loosing condition, the conclusion to be drawn from these facts, are that the June feed contains a greater quantity of nutriment than is required to supply the waste, while the December feed, being most devoid of nutriment, the stomach cannot contain, nor digest, a quantity sufficient, to supply the waste, the cold of December also contributing towards a system of starvation; on the contrary the month of June

greatly facilitates an improving condition. All horned cattle and especially milk cows should be housed, during night by the end of October, and regularly fed with good nourishing food, it is much easier to keep them in good condition, than it is to bring them into condition, if once let down. Every farmer should keep as many cattle on his farm as he can, but not one more, than he can keep well. The question, with the farmers here is how can we get hay and corn, to keep our cattle from October to May, the question should not be, how can we get hay, and corn, but how can we get green crops. I will not attempt to answer the question but if once answered, and acted upon, I think it would be easy to show, how cattle could be wintered in good condition without either corn or hay, and that a greater abundance of corn, and hay, would follow of course. I know that upon ordinary field land, from six hundred, to one thousand bushels of white Belgian Carrots or mangelwurtzel, can be raised upon one arpent, and one half bushel per day regularly fed to an ordinary sized cow with plenty of straw, will keep her in good condition, and the cost will be little more than half the cost of hay. The tops of carrots and mangles, comes in at the time the grass fails, and they may be kept in a fresh and eatable condition for four or five weeks, by spreading them on the ground in beds, eight or ten inches deep, and be fed to the cattle, morning and evening, as long as they last. If left together in large heaps they will soon ferment and go to waste.

The cow stable should be warm, clean, and well ventilated. They should have a good bed of straw, to lay upon, this will encourage repose, which produces more benefit than is well understood by a great majority of our farmers. The practice with many of them is to shut their

cattle up at night, in close, warm, houses, and turn them to the barn door in the morning and let them pass the day there, these sudden changes from hot to cold, and from cold to hot again, are sufficient to break down the constitution of the strongest animal that ever lived, far better never put them into a houses at all.

Since the day that the Patriarch Noah sent the Raven and the Dove out of the Ark that he might know if the waters of the flood had abated down to the present time, Mankind have attempted to foretell future events from the flight and movements of the fowls of the air, and so it is to some extent, with the present generation of Canadian farmers; it is considered by many of them, a bad omen when the Crows, remain with us in great numbers through the winter, forboding great quantity of Carrion toward springs. Now those fears and forbodings, I consider to be pretty well founded: not that I believe that the Crows know any thing about the quantity of carrion that is providing for them, but that the same meteorological condition which induces the Crow to remain, with us, (and we have them this season in countless numbers) induces the ignorant and careless farmer to neglect his stock, and thereby the Crows, and the carrion, are brought together.

Now M. Editor, your humble servant may be considered but poor authority, but should you think fit to indorse this paper, by giving it a place in the Journal, perhaps some careless farmer may heed the council and thereby deprive the Crows of at least some of their carrion,

WILLIAM BOA.

—We tender our thanks to Mr. Boa for his able communication as above published. It is desirable that many should follow the example of this practical farmer, who favours us with

the results of his knowledge and experience. We hope we will hereafter receive reports and correspondances from different sections of the Province our columns being open to those who will favor us with their assistance.—Ed.

**Gypsum for Grass Land.**

In the region of Newtown, Conn., and vicinity, (as well as in many other parts of the country,) ground gypsum, or plaster, is extensively used as a top dressing for grass land. The effects are so marked that a region of exhausted meadows and pastures have been brought into one of the finest grazing districts in the State. Newtown has now the reputation of being one of the best farming towns in Fairfield County. Hill pastures that once yielded a scanty herbage, are now luxuriant with grass, and support thousands of cattle. This fertilizer is generally sown upon the ground in the Spring, at the rate of about two bushels per acre.

It was not until modern times, that the value of gypsum, as a fertilizer, was discovered. Indeed it is not until a quite recent period, that the chemists were able to distinguish it from limestone, or other calcareous rock. Meyer, a German clergyman of distinction, about the middle of the last century, experimented with it, and is reported to be the first who brought it into notice. The substance was found in his neighborhood; and was afterwards shown to be an impure sulphate of lime. It is called Plaster of Paris, from the fact that it abounds in the neighborhood of the French capital, where it is burnt and used for stucco. In 100 pounds of pure plaster there are:

- Sulphuric acid.....43 parts.
- Lime.....33 parts.
- Water.....24 parts.

But the gypsum used for a fertilizer is usually united with silica, (sand),

and carbonate of lime. The rock is generally taken from its native locality, and carried in small fragments suitable for handling, to the plaster mill, where it is ground and barrelled.

There is perhaps no fertilizer that on some soils produces so decided results for so small a cost. It has been applied with special benefit to clover, rye, grass, lucern, sain-foin, turnips, wheat, &c. We have found it most profitable on clover. The theory of its action is, that it absorbs ammonia from the air, and holds it stored for the plants.

Whatever the theory be, it is found in practice that gypsum has a strong affinity for the ammoniacal gas, which is continually escaping from the privies and stables. One of the most economical methods of using it, is to pass it through the stable and the privy on its way to the field. It is a good deodorizer, subduing the pungent gasses that exist, in warm weather, around decaying animal matter. A cask of plaster should have a place in every stable, and it should be sprinkled literally over the floor, until the smell of ammonia ceases. Its effect upon the health of animals is quite as marked as its influence upon the manure heap.

Both as a deodorizer and as a top dressing the use of plaster is quite too limited in this country. The article is so cheap that there is little temptation to adulterate it, and a farmer is pretty certain to get what he sends for when he orders it. As only two to four bushels ordinarily suffice for an acre, it is not expensive, and easily applied. On all lands that need this fertilizer, the effect of a single application is so marked, that a farmer cannot doubt its utility or economy. On lands already supplied with it, no effect is perceptible, and a single trial would show it to be useless. In such cases, it should only be used in the stables and compost heaps.—*American Agriculturist.*



## Hanson's Machine for Digging Potatoes.

Mr. J. Hanson, farmer, of Doagh, Belfast, has recently introduced an apparatus to be used for digging or removing growing potatoes from the earth, as a substitute for the ordinary hand-fork, the object being the more rapid and economical removal of the roots.

The implement consists of a light, open timber frame, supported on four running wheels, the motion of the main axle being applied to the driving of an arrangement of rotatory digging forks. It is drawn by a pair of horses attached to a transverse bar, at the end of the frame opposite the forks, the connexion being similar to that usually adopted in the common plow. The end transverse bar projects at one side, and serves as a handle for turning the machine at the headlands. The front pair of running wheels, next the horses, are of large diameter, and are furnished with radial spikes on their peripheries, so as to have a firm hold upon the ground in revolving, and thus provide sufficient resistance for the fork-driving action. The main axle, revolving with these large running wheels, carries a toothed bevel wheel, in gear with a bevel pinion fast on the forward end of a horizontal shaft, supported in bearings in the centre of the hind part of the frame. The opposite end of this shaft projects slightly at the extreme rear of the frame, at which part it has upon it two or more radical rotating forks, which of course revolve in a plane at right angles to the line of the implement path. At the part of the frame immediately behind the small back running wheels there is attached a horizontal plow piece, slightly inclined on its upper surface, the rear

portion of which is just clear of the forks, as they work round. This plow piece, which is adjustable vertically, to suit the depth of the action required, passes along beneath the drill of potatoes deep enough to lift up both the manure and the potatoes. In this way, as the manure and potatoes are elevated upon the incline, the rotary action of the fork scatters out the potatoes, which can then be easily removed. Provision is made for allowing one of the large driving wheels to turn back, to facilitate the turning of the implement at the end of a drill.

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## Setting Fence Posts.

We hear frequent complaints of the perishableness of fence posts set in the ordinary way. And to the suggestion that the lower end of the posts should be charred, it is replied that while charring benefits the outside of the timber, it cracks it open so that water penetrates the wood still further, and causes a rapid decay in the interior.

Let us, then, make another suggestion: Char the lower end of the post for eighteen inches or two feet, so that about six inches of the charred part will be above the surface of the ground. Have in readiness a kettle of hot coal tar, (a cheap article,) and plunge into it the lower end of each post; or apply the tar with a brush, taking pains to get it into the crevices. A second application is desirable, as soon as the first becomes dry, and will make the timber water-proof for many years.

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## Gather Manure

FROM THE ROADS IN THE SPRING AND FALL.

Notwithstanding the present season is not so favorable for farm work, yet, as you say, there are a thousand things which are *better* done now than at any other season; and it will be conceded that any man, especially the tiller of the soil, who neglects to do these things now, will find that when he can ill spare time, they will have to be done. On such a day as the present, for instance, who has not repairs to make to the utensils of the farm, and what more profitably can be done than to take them to the barn, or work-shop, and give them a thorough overhauling? I must confess that I have been guilty of neglect myself, and can see now why such work should be attended to when the time is not required for other work.

But my object now is, not to write a dissertation upon points which receive so much attention in your paper, but to say a few words again in favor of my much-valued *muck*—my experience in which you published in your last. There are some farmers and gardeners who have not a muck pond to go to for a supply. It is to this class especially that a word may be of benefit, for I speak from experience, and can testify that what I recommend will pay.

Almost every farmer has access to the road, or highway, and will admit that mud (or muck) makes a bad road. It is too often the case, that because this material is easily *worked*, it is drawn on to the road, and the consequence is that in dry weather there is much dust, and in wet weather much mud. Every farmer would be the gainer if he kept the road opposite his land in good order by carting on *gravel*, and carting back upon his

land the mud, wash from the street, &c. A road once *well* made with gravel, will need but little yearly repair, and the wash of a road one-quarter of a mile in length, will furnish 20 or 30 loads of good muck annually.—*American Agriculturist*.

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## Culture of Parsnips.

This kind of root crop is a favorite one with some, both for the table and for the use of stock. Parsnips are certainly delicious in the spring, especially such as have stood in the ground during the winter; and judging from the greediness with which they are devoured by cows, we conclude that cattle relish them about as well as human beings.

If, in consideration of the several good qualities of parsnips, such as the excellent color and flavor of butter made from the milk of cows fed upon them; their superiority to carrots, turnips, &c., for fattening cattle, and giving to the meat an exquisite flavor and juicy quality; their utility in fattening hogs and poultry, producing fat in shorter time, and meat of a more sweet and delicious quality than when these animals are fed with any other root or vegetable;—if, we say, any of our readers, in consideration of these and other good qualities which parsnips have been thought to possess, should conclude to make trial of a small patch of them, we would suggest, to make their trial a successful one, that the patch selected should be a sandy loam, or a soil as nearly approaching to that as possible, that the seed should be fresh or have its sprouting quality tested, that the drills should be wide enough apart

to admit of easy working, and that the land should be carefully kept clear of weeds.

Parsnips have this advantage over other roots, that they can be allowed to remain in the ground during the winter, and thus have the advantage of keeping on growing until the ground is frozen solid. Those who have allowed the most favorable seed-time for the other earlier roots—turnips and ruta bagas not belonging to this class—to pass by without having put in a patch of carrots, sugar or mangold beets, would do something which they would be little likely to regret if they should, put in a small patch with parsnips and carefully hoe and weed them. They require no care in storing them, as they keep better in the place where they grow than elsewhere. For occasional use during the winter, however, a few may be taken up before frost, and stored with a covering of earth or sand to prevent them from shrivelling and losing somewhat of their juiciness and delicious sweetness and flavor.

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### Steeping Seeds

#### to prevent injury from insects

Of the various plans heretofore proposed or tried to secure immunity from the depredations of the various insect-foes of the farmer and gardener, the most feasible, plausible or promising, seem to be those which are based, however *various* may be the *modes* and *materials* employed in carrying it into operation, upon *one single principle*, namely, that of rendering the plants which are the objects of attack, or the soil around them, so distasteful, offensive or poisonous as to drive off or destroy the depredators. This

one principle has led to the employment of a great many materials and modes of operation, all having one common object in view, viz., to render the plants safe from attack by communicating to them, or to the soil around, some offensive or poisonous property. This is the principle which has led to the proposal of such plans as sowing the soil with salt; sprinkling ashes, lime, snuff, &c., &c., upon plants; steeping seeds in liquids strongly imbued with tar, tobacco, saltpetre, coperas and other saline substances; planting offensive herbs as tomatoes, buckwheat, &c., in the neighborhood of the plants intended to be protected, &c., &c. Success has occasionally seemed to result from some of the various plans of operation based upon this one principle; and, it seems highly probable, that there yet may be devised some application of it, or some mode or material for carrying it into operation, which may be more successful than any of the modes or materials as yet proposed or tried.

We would suggest that trials should be made during the coming season, of steeping seeds in solutions of substances known to be offensive or poisonous to insects, as guano, foreign and domestic, gas tar, tobacco, quassia, salts of cobalt, mercury, &c., and of using the same as top-dressing. Corrosive sublimate is so efficient in preserving stuffed animals and anatomical specimens from the attacks of some insects, as to make it probable that steeping seed in a solution of a few grains,—two to ten—to a quart of water, might drive off others, and save even wheat from its depredators. But whatever may be the *material* employed, the *principle* seems deserving of further trials and application.

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MONTHLY METEOROLOGICAL REPORT

For November 1857.

BAROMETER.

Mean reading of the barometer F inches corrected and reduced to...	32° 29 681
Highest reading of the barometer the 26th day .....	30° 344
Lowest reading of the barometer the 19th day .....	29° 003
Monthly range .....	1° 341

THERMOMETER.

Mean reading of the standard thermometer .....	33° 69
Highest reading of the maximum do the 9th day .....	64° 1
Lowest reading of the minimum do the 25th day .....	1° 0
Monthly Range .....	63° 1
Mean of humidity .....	0° 871
Greatest intensity of the suns rays .....	69° 6
Lowest point of terrestrial radiation .....	1° 0
Amount of evaporation in inches .....	5 749
Rain fell on 12 days amounting to 5,749 inches, it was raining 74 hours 15 minutes and was accompanied by thunder on 1 day .....	
Most prevalent wind W. S. W. ....	
Least prevalent wind E. ....	
Most windy day the 25th day, mean miles per hour .....	22 m. 09
Least do do the 1st day do do	1 99
Ozone was present in rather large .....	
Aurora borealis not visible..	

Montreal Market Prices.

CORRECTED BY THE CLERK

OF THE

Bonsecours Market.

Montreal, Jan. 29, 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 minimot. ....	3 4 to 3 6
Barley, do .....	3 0 to 3 0
Peas, do .....	3 9 to 4 0
Ons, do .....	1 16 1/2 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
Gran, 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 0 to 6 0
Ducks, do .....	2 0 to 2 6
Do Wild, do .....	2 0 to 2 9
Fowls, do .....	2 9 to 3 0
Chickens, do .....	1 3 to 3 0
Pidgeons, Tame, do .....	1 0 to 1 3
Partridges, do .....	2 3 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 4 to 0 9
Pork, do .....	0 6 to 0 7
Mutton, do .....	0 5 to 0 7
Do per qr. ....	5 0 to 8 9
Beef per 100 lbs. ....	35 0 to 40 0
Pork, fresh, in carcass, ....	47 6 to 50 0

DAIRY PRODUCE.

Butter, Fresh, per lb., ....	1 3 to 1 6
Do Salt do .....	0 8 1/2 to 0 9
Cheese (skim milk) per lb .....	0 6 to 0 8
Do (sweet) do .....	0 11 to 1 0

VEGETABLES

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

SUGAR AND HONEY.

Sugar, Maple, per lb. ....	0 6 to 0 6
Honey, do .....	0 7 1/2 to 0 8
Bee's Wax do .....	1 3 to 1 6

MISCELLANEOUS.

Lard, per lb. ....	0 7 to 0 8
Eggs (fresh) per dozen, ....	0 8 1/2 to 0 9
Hamlet, per lb, ....	0 4 to 0 0
Haddock, ....	0 3 to 0 0
Apples, per barrel, ....	16 0 to 20 0
Oranges per box, ....	0 0 to 0 0

# 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 5¢ 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.  
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Secretary and Treasurer.

Montreal, 12th Janv. 1858.



## TO FARMERS!

**PIERRE DUFRESNE,**

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# 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.



## 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 ranges and range A in the Township of Ashford will be open for Sale on condition of actual settlement, and after the 11th day of January next.

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

## Worthy of Recommendation.

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

**Books on Agriculture,  
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September 1857.



## Dr. Picault's Medical Hall,

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THE most approved Medecines 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 Medecines, &c.

September 1857.

**THOMAS COUILLARD,**  
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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-Reeds, &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.

**AGRICULTURAL BOOKS.**

A large variety of the most modern works on every thing pertaining to Agriculture, Horticulture, &c., &c.

For sale by

JOHN DOUGALL,  
36, Great St. James Street, Montréal,  
Nearly opposite the Wesleyan Church.

Nov. 1857.

**Every Farmer should have**

The Illustrated Annual Register of Rural Affairs for 1858,—price 1s 3d.

Sent by mail free postage.

For sale Wholesale and Retail by

JOHN DOUGALL,

36, Great St. James Street, Montreal.

Nov. 1857.

**N. Lepage's**  
**SUPERIOR FIRE ENGINES.**

MR. LEPAGE is ready to manufacture Fire Engines for the City and Country at prices varying from \$20 to 2000.

— ALSO, —

Portable and Stationary Engines for steam-boats, the whole warranted superior to any other Engine and constructed so as to occupy but little space and be ready for service at all times.

The Fire Engines are well known as the best suction engines, and will be found allways in order.

Liberal conditions on orders for Engines sent from the country.

N. LEPAGE,

St. Edward Lane, Montreal.

Models in wood and brass for all kinds of machinery, new inventions, &c. made according to plans sent to him in the best style.

N. LEPAGE,

Engineer and Fire Engine Manufacturer.

September 1857.

**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, Montreal. Horses bought or sold to order.

October 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 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 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 Angleson 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 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 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 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 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 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 **ELGHT 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.