

Bone Crushing.

POINT LEVI, 6th April, 1856.

ISAAC R. ECKART, ESQ., Quebec.

Secretary, Q. C. A. S.

DEAR SIR.—By an advertisement in some of the public papers I am glad to see that the Quebec County Agricultural Society offers a premium to any person who will establish a *bone crushing mill*. I have often thought that such a thing was wanted in this neighbourhood, for I am well aware of the good effects of crushed bones as a manure, having tried them here 30 years ago, under very unfavorable circumstances, having no other way of crushing them than with hammers on a large stone. Of course the work was but very imperfectly done, notwithstanding which the result was such as to show to my satisfaction that crushed bones are an excellent manure. Where I had applied them the spot was remarkable for many years by its superior greenness, &c. To derive the greatest advantage from bones, they should be ground to such a powder as to be sown along with or at the same time with turnip seed, &c. And they would be a substitute in some measure for that fashionable manure, Guano, which is not likely to be had here at reasonable prices.

As I have always been an advocate for Railways and Turnpike roads; being aware of the immense advantage they are to any country, and seeing that the great obstacle to their working well in this country is the collection of drifted snow in the deep cuts which it is necessary to make where the road passes through high grounds. Now to obviate this I would suggest planting, in a proper manner, such trees as were best adapted to the ground, a certain breadth, say an acre, less or more, according to circumstances, on each side such *deep cuts*, extending somewhat farther at each end. By which means, in the course of a few years, the Railway would be so protected from drifts of snow that the ordinary snow plough would probably be sufficient to keep the way clear even in *deep cuts*.

As you are more acquainted at head quarters than I am, I take the liberty to let you know my ideas on this subject, which can do no harm, and might be of very great importance to stockholders and the public generally.

Your humble servant.

CHARLES ROBERTSON.

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Agriculture in Lower Canada.**TREES.**

There is one more defect connected with the management of land in Canada, which I must not omit,—that is, the almost total destruction, when clearing land, of every tree that grows upon it, and the general neglect to plant any other trees, either for shelter or ornament, or for the use of the farm. I have frequently endeavored to attract attention to this subject, in order that some steps

might be taken to prevent or check this evil, but the destruction still goes on, as if it was desirable that we should not leave a vestige of the fine forest trees that covered the lands of Canada, or plant any others in their place. The total destruction of trees where settlements are being made is attempted to be justified, in consequence of the difficulty of preserving trees when clearing land, and it is urged also that the trees that are left interfere with the cultivation of the soil. There may be some foundation for these objections; but I think it would be quite possible to overcome them, so far as preserving some of the trees, by selecting those that have the deepest roots in the soil, in situations where they are not so much crowded, removing all the underwood, and thinning the large trees out to a certain extent. There may be trouble in saving the trees when the fire goes over the land, but nevertheless some may be preserved from injury. More trees might be left than would be necessary, and then if some were injured by the fire, a sufficient number might remain safe. The best varieties to leave as scattered trees, for shelter, ornament, and for use, are the elm, birch, beech, maple, hickory, ash, butternut, and perhaps the oak. Soft woods tree, if preserved, must be left in clumps, or groves, as they will not stand alone, if of large size. The cedar, or pine species, left in clumps or groves, are very ornamental in the landscape, and may pay well for the land they occupy. If circumstances should not admit the preservation of some of the original trees of the forest, when clearing land for cultivation, trees should be planted at once, and I have no doubt they would pay for the land they occupy. Young trees of thriving appearance may be taken from the forest, and, if carefully planted, they will grow very rapidly. There is an advantage in planting—that the trees may be placed in the most eligible situations, where they will answer the best purpose, and be of the least injury. On an average, one hundred square yards would be amply sufficient space to estimate for each tree, until they would attain the age of thirty or forty years; hence, the use of only one acre of land would be lost for thirty-six trees, and if these trees were of a useful description, they would, perhaps, pay as well, when at a good size, for the land they occupied, as any other portion of the land, besides the shelter and ornament they afforded for so many years. They might, if cut down for any purpose occasionally, be replaced by planting other trees. I have seen trees planted alone in good soil attain a very considerable size in thirty years. In Britain, trees are planted for profit, and were considered to pay well for the land, if parties could only wait to allow them to attain a good size. But, apart from all consideration of actual profit, the rural population have an interest in maintaining the beauty of the landscape, and it is impossible to do so without a due proportion of trees. The long, straight lines of dead wooden

fences, and the absence of a due proportion of trees is a great disfigurement to the landscape in Lower Canada. Trees of almost every variety were the natural growth or production of this country, from the lowest valley to the summit of the highest mountains, and I feel persuaded that it must have an injurious tendency to strip the land at once of all these trees, particularly where the summers are so hot, and the winters so cold. There is no doubt that the destruction of the trees in other countries has been found to be very injurious generally, and I fear it will have the same effect here, if we go on cutting down every tree, and not planting any. In many parts of L. Canada, where there is not a tree left standing, I have no hesitation in saying that the land suffers in consequence, and also the live stock pastured in Summer upon this naked and unsheltered land. I do not advocate too much shelter upon our arable land, because I believe it would be injurious to our crops of grain, but to a reasonable extent, trees and shelter judiciously provided, are absolutely necessary in Canada. In the Mother Country, live fences and trees prevail so much in some situations, that agriculturalists complain that they are injurious, but chiefly in consequence of their being a protection to game. In this country, shelter is more necessary, and we have not the trespass of game to apprehend. Doubtless, we cannot have the land which immediately surrounds a large tree very productive of either grain, grass or vegetables, but if all the remainder of the farm is well cultivated, except that part occupied by beautiful trees, left for shelter and ornament, we might very well afford to forego the crop that would be produced where these trees stand. I believe I am perfectly justified in stating, that a farm of two hundred acres, with a sufficient number of trees, judiciously placed, for shelter and ornament, would be more productive of grass, grain, and vegetables, for man and his live stock, than the same farm would be, if it had not a tree upon it. It may be very desirable to subdue the forests, and settle the country with industrious inhabitants, but the utter destruction of all the trees is not necessary to the accomplishment of this object. On the contrary, this object may be better attained by preserving some of the forest, or by planting other trees to the necessary extent, in place of those we cut down and destroy. This subject is of sufficient importance to entitle it to the serious attention of our Legislators. There is already sufficient proof of the injurious effects produced by depriving the land of every tree that grew upon it. It is better to inquire into the subject in time, while a remedy is in our power, than to wait until the matter is forced upon our attention by the manifest deterioration of the land in consequence of the destruction of the forest, and the want of trees and shelter. Any observing person, making a tour in the country in summer, will have noticed how animals appear to enjoy