

Carrot seeds (and you may say the same of the other seeds) ought to be soaked in rain, or soft water, until they are about to sprout, and then rolled in quick lime until the grains are dry enough not to stick to each other.—When there is no lime, wood ashes will do as well. A pound of seed, if it be good (and you ought always to try it before sowing,) will be sufficient for one acre of land. By the above plan, the young plant will come up before the weeds, so that it will be easy to distinguish the rows of carrot before the weeds appear: this renders the cleaning comparatively easy, since it may be done (except the thinning) by means of a cultivator. This cultivator is an instrument which every settler ought to have, and which, like those already mentioned, is extremely simple in its construction. It is made of three bars of wood joined in front, and separated behind according to the width of the furrows which you wish to clean. This instrument, called the Horse-hoe, or Drill-harrow, or Cultivator, is drawn by one horse, and has handles to it like a plough, only lighter. A man or a boy may guide it so as not to touch the rows of Carrots or other crops, but only to raise the soil to a greater or less depth, at pleasure. As soon as the weeds appear, you draw this harrow between the rows, so as to bring the soil as close as possible to the young carrots, but without touching or covering them. This process will keep the plants sufficiently clean until the time for thinning them and leaving them four or five inches apart from one another; soon afterwards you may plough between the rows thus harrowed and raised. These operations do good to the plant by permitting air and moisture to have access, and by facilitating evaporation. My plan for gathering the carrots in autumn is to pass the plough along the right side of the plants as close as possible, without injuring them: this frees them on one side, and the stem is strong enough to allow us to haul up the roots by it afterwards.

This method of culture requires a good deal of labour, but the return is more than enough to recompense the farmer.

When we consider the large amount of nutritive matter contained in this root, and its general application to all the living things on a farm, its culture cannot be too strongly recommended, besides it is relished by all animals, especially by working horses, to whom it may be given instead of Oats.

I have dwelt particularly upon the culture of the Carrot, because the same method applies to the culture of all the root crops, which can be advantageously grown in this climate, such as Parsnips, Beets, Mangolds and Turnips.

Beets and Mangolds have the same value as a crop, and as food for milk cattle; but I do not consider them to be so good for fattening cattle.

[In spring, all the manure made during the past winter should be carted to the field, placed in a heap, and twice turned. All bones should be gathered and broken up with a hammer, all coal and wood ashes, scrapings of sewers, the dung from the fowl-house, and the contents of the privy, should be collected and made into a compost, with dry loam or bog earth.

The above manure may be used for that portion of the field devoted to cabbages, potatoes and turnips. It should be put in the bottom of the drill on which the above are to be planted or sown.

When the ground is properly ploughed and harrowed, and a sufficient quantity of sound seed sown, say at least four pounds to the acre, the Turnip crop is as certain as any other.

The Turnips, when well up, and getting strong, should be thinned out to a foot apart, and the hoe and cultivator passed through them, at least twice before they meet in the drills.]

**HORSE-BEANS AND PEAS.**—If the land is too heavy for root crops, beans and green peas will suit for No. 1, taking care to sow them in drills, and to prepare the land as above described for root crops.

[To be Continued.]

**PROFESSOR JOHNSTON ON NORTH AMERICA.**—We take from the Halifax *Guardian* a review of a work lately put out in England, by J. F. W. Johnston, M. A., F. R. S. S. L., & E. F. G. S. C. S., &c. &c., entitled—"Notes on North America, Agricultural, Economical, and Social." Our readers will perceive that the learned Professor in illustrating some theory in agriculture points out one or two localities in our neighborhood, which must show that the learned Gentleman's tour (short as it was) through our Province was not altogether to no purpose. We have heard a great deal of complaint as to the corresponding benefit derived from the outlay of so much money for the very hurried manner in which the Agricultural reports of the Province was got up. If our own County did not receive her meed of praise from Prof. Johnston, the fault is quite our own, inasmuch as very few statistical returns were made to that Gentleman—whether from apathy or want of confidence, we know not. This we do know, that we have been very great losers on this account, as it was impossible for any kind of a report to be made without due returns from each district. Should we meet with the above work, we shall take an early day for the transcribing of such parts of it, as may be of any advantage to this section of America.

*Notes on North America, Agricultural, Economical, and Social*, by JAMES F. W. JOHNSTON, M. A., F. R. S. S. L., & E. F. G. S. C. S., and Reader in Chemistry and Mineralogy in the University of Durham: 2 vols.—William Blackwood & Sons, Edinburgh and London: 1851.

This is one of the most original and variously interesting works that has issued from the press for a very long period

relative to North America. There is not a single topic of importance of which it does not treat in the wide range of its intelligent and instructive commentary. The author is already most favourably known to the public by his scientific works on agriculture: and his present volumes are singularly opportune. In the existing transition state of our own agriculture, the topics he handles, the information he brings to bear upon them, and the candid and impartial spirit in which he discusses the whole subject, will make those volumes eagerly sought after, and a most profitable study. Although not more than eight months were occupied in his survey, Mr. Johnston contrived to go over a good deal of untraded ground. His remarks on the lower St. Lawrence, and the Province of New Brunswick, are entirely new. For variety of matter, and the uniform intelligence with which it is discriminated and conveyed, the accuracy of the information, local, scientific, practical, or miscellaneous, which it conveys, whether affecting the character of the people, the soil, stock, or modes and implements of husbandry, which prevail in North America, this work is unrivalled. The tendency throughout is to encourage the rural industry both of Great Britain and North America, to keep those at home who are not well able to "rough" it for some time abroad, and to draw still closer the bonds that unite the two kindred nations. The following extracts may be taken as a fair sample of the more miscellaneous portion of the "Notes":—

**AMERICAN EQUALITY AND FRATERNITY.**—A key to some part at least of this running wild of the children was afforded me by a little circumstance which occurred to me in Albany. A friend of mine had a boy of twelve or thirteen years employed in his office to run messages and do other small affairs. This boy several times brought me notes from his master; and while waiting for an answer, he would walk first to one table and examine the books and papers, then to another and do the same, and finally to the mirror, and arrange his hair in the coolest manner imaginable. I was amused with this for one or two visits. At last I said to him that in my country, we did not approve of little errand boys taking such liberties, and showing so much conceit when they came into a gentleman's rooms; and requested that, when he came with messages to me in future, he would sit down quietly till I wrote an answer. The boy was amazed, but was very respectful ever after. His master told me nothing had ever mortified him so much, and at the same time done him so much good; but when I asked why he had never set the boy right himself, he gave me no reply. On telling the matter to an American lady of my acquaintance, however, she asked me immediately—"Were you not afraid to speak to the boy in that way?" "That boy may be President of the United States yet." "And what then?" "Why, he might do you a great deal of harm." It was now my turn to look amazed. It is not a persuasion that it is best for the boy which restrains reproof, but a fear that it may be worse for the reproof. This fear of one another, I was assured by various persons, amounts often to a species of tyranny throughout this Union.

**THE EMIGRATION FEVER.**—About eight miles from the mouth of the Est River, lies the Howard settlement situated on a tract of good second rate upland, in the township of Dumfries. In this settlement a farm is at present offered for sale consisting of two hundred acres, of which sixty acres are cleared. Four acres are in wheat, two in Indian corn, 24 bushels of oats have been sown, 1-2 of buckwheat, and twenty of potatoes. There are also four cows, two oxen, two horses, two heifers, fifteen sheep, 20 tons of hay, with a house 20 feet by 30, and a barn 30 feet by 40. The whole offered for £140 currency (£112 sterling). The only condition is that of ready money. The owner is said to be mad to go to Wisconsin. It ought not to surprise us that some of those who have shied once—breaking loose from all ties of place and blood—should after a time have another access of the raving fit, and, right or wrong, insist on moving a second or third time. Changing their country is to many like a change in their religion—they don't know when or where they ought to stop.

**AN EXHAUSTED FARM.**—23rd August.—On leaving Woodstock this morning for Fredericton, we drove along a rich interval, four miles in length, to the ferry, where we crossed the river and proceeded down the left bank. While waiting for the boat, I made some enquiries regarding the ferry farm, on which I saw beautiful crops of oats and Indian corn. This farm consists of eight hundred acres, of which from sixty to seventy are rich upper interval land, producing forty bushels of oats and fifty of Indian corn, and valued by the owner at £10 an acre. The rest is upland. The owner bought the whole two years ago for £700 currency. It used to be valued at £1500, but it has been long rented to an exhausted tenant, and the cultivated part has had no manure for thirty years. The selling-everything-off system was followed, and the rent in consequence had gradually fallen from £100 to £40 a year, when it was sold. This exhausting system has been, and indeed still is, as I have already remarked, the almost universally followed one in North America. Ultimate poverty is the consequence of it to the farmer's family, and finally a sale of the farm itself to some one who knows how to restore it. The old occupants then trudge farther West, buy cheaply in a new country, and again inflict the consequences of evil management on some still virgin spot.—This farm is a very promising one still, to judge by the crops of Indian corn, oats, potatoes, and turnips I saw upon it. For money returns in this quarter the farmer looks to his butter, cheese, and pork.

**DESCENT OF THE RAPIDS IN A STEAMER.**—September 23.—At four in the morning we were again under way, and most of the passengers on deck, to witness the running of the three formidable rapids, which occur within the next sixteen miles. The descent was very interesting. The rapid current, the often narrow channel, and the care in steering, all told of difficulty in the passages; and when one looked at the large ship, dodging as it were among the shallows and headlands, it appeared really wonderful that accidents should so rarely happen. Of the rapids between Lachine and Montreal, the most formidable and dangerous is that of the Saint St. Louis. The descent of this rapid

in so large a vessel, created in my mind a feeling of surprise. In descending the Tobique in my bark canoe with a single Indian pulling and landing off in quick and narrow and rocky rapids, I could not help admiring the nice tact, the instinctive perception, with which a gentle touch of the pole on the threatening rock, at the proper moment, kept all safe. Here, on the St. Lawrence, the same tact appeared, but with a greatly superior intellectual skill, in handling and guiding a large boat with a heavy cargo through a crooked channel, where the slightest oversight for a single moment would cast all upon the rocky shallows. Let the reader fancy to himself a ledge of rocks running across the river, over which the water has a distinct fall, to the eye appearing to be somewhere between six and ten feet, into deep water below. Through this ledge is a narrow channel of deep water, where the rock has been torn away, and through which the river rushes with great velocity. Below this ledge, at a short distance, is a second ledge of rock, over which the water falls, and through which, as in the case of the first, a natural gap, or sluiceway exists. Between these two ledges deep water exists, but the openings of the two are not opposite to each other or in the same line. You must descend the one, then turn sharp in the deep water along the foot of the first ledge, and at the proper time turn sharp again to go through the other. The channel is a true zigzag; and to sail along this letter Z in the face of a strong current and a heavy pressure of water requires a degree of skill and coolness in the captain, and of mobility in the ship, which it requires little consideration fully to realise. Four men at the heel, and six at the tiller to guard against accidents, steered us safely down; and it was beautiful to see with what graceful ease and exactness the prow of the long vessel turned itself to suit the sudden turns of the rocky channel.

## COLONIAL.

[From the St. John Chronicle.]

### RAIL ROADS AGAIN.

This subject still is, and must continue to be the all-engrossing topic of the day. New Brunswick, so far as it was practicable, has, both by the ice of the public and the deeds of the Legislature, up to this moment, left no opportunity slip, nor preliminary step untaken for carrying out the great design, and a pledge of our Delegates at the Convention at Portia last summer.—That our sister Province has not been really scrupulous in redeeming her pledge to our friends Maine is much to be regretted; nor can we, under almost favourable view of the case, wholly acquit her of being repudiated promises made at the great Convention through her accredited agents. We of this Province not supposed to know the secret workings of political parties in Nova Scotia, yet we cannot divest ourselves the idea that other than patriotic motives have insulted the Representatives of the people to allow the St. John to pass away without the passing of one Resolution the forwarding of a work, on which the mass of the people looked as the last and only measure that was to stem a sinking country. It is only justice to state, the fulfillment of their pledges as given at the convention, was advocated by a judicious and honest few, but for the credit of the Province, so small was that minority that its patriotic voice was not heard beyond the porch of a disgraced Hall of Legislation. That the Government of Nova Scotia were determined to give the great question the "go-by," and delude an anxiously expectant constituency, is to be found in the stress laid, and the destination consequent on the mission of Mr. Howe, subsequently the broken promise of calling a short Session for the purpose alone of considering that great question. That the conduct of Nova Scotia will have the effect of delaying the commencement of the great work is doubted, but that the whole government of the province, stubbornly combined for the purpose of frustrating the design, could effect their wicked purpose, we can never bring ourselves to believe. Be it as it may Nova Scotia has lost a full year of its forward march; so, however, we trust, with New Brunswick; in this view, immediately on the receipt of the news that Majesty's consent has been had to the bills passed by Legislature, for facilitating the building of our portion of the great European and North American Rail the Stockholders will be called upon, the Government's undertakings will be issued, and the ground will be broken by the sunburnt sons of toil, while the great men of our sister Province will stand aghast and wonder at daring intrepidity. We shall take the lead in this matter and Nova Scotia must follow. The only discrepancy, that we shall be one year in advance of our neighbours, with this advantage, that by the time their needs ours at the verge of the Province, we shall have established a trade across the Isthmus with Canada, to Edward Island and the North shore; and had that in good faith with their pledges, they might participate in it largely. And now a word relative to the Quebec and Halifax Railroad, which appears to fascinate our eyes across the Bay neighbours. The road can be built, nay must be built, and at no very remote period, we no more doubt than we do that the lines (occasionally) at noon, altho' much difference of opinion exists as to the how's and the when's. Now let us to our simple notion of this matter, there does exist that immensity of difficulty that on the first flash question presented itself. Let us see. The road from Nova Scotia, whether the terminus be at Que. Portland, will be precisely over the same ground in Amherst, where their line joins the line of this ice, under all and any circumstances; the route is for either of the terminuses, via St. John, and thence, nothing could stop us from tapping the Trunk now in progress between St. Andrews and Que., and through that medium form a junction with Portland line at Galois. On the completion of road to Woodstock, which is rapidly approaching, accomplished, and