

Agriculture.

Manuring.

We are told by some, that we should bury manure as deep as possible with the plow, and by others that we should spread it on the surface, to produce the best results. Now we know that both cannot be right, relative to the same piece of land, and yet they may be as to different soils. The different kinds of soil even in N. E. are not so numerous that there may not be some established method for the cultivation of each, or at least some undeniable facts as starting points from which we may improve, and without which we seem to be groping in the dark, or sailing without chart or compass.

Agriculture, although the first, best, and noblest employment of man, is yet but imperfectly understood. Chemists have done something to promote its objects by informing us of the constituents and food necessary to promote the growth of plants, but have left us nearly in the dark in relation to the best method of supplying or applying the same.—The knowledge, with numerous other objects of inquiry, can be gained by no other means than by practical and experimental farmers, for which we look to your agricultural meetings with much solicitude. If we, as working farmers, can have new and well demonstrated facts, we should draw our own inferences, and if we should err, it would only prompt us to more intense inquiries. The truth that the gases arising from the decomposition and putrefaction of manure is the cause of all vegetation, as demonstrated by Sir. Humphry Davy, is truly valuable; at least it has been so to me. It has taught me the effect of manure on vegetation, and—

First, that it need not of necessity come in contact with the earth and roots of the plants.

Second, that the exhalations arising from it and inhaled by the plants is the true cause of their growth.

Third, that the frequent stirring the earth around the plants has the same effect as uncorking a new set of bottles.

Fourth, that manure spread on the surface loses much of its fertilizing properties before the plants come up, or before they are of sufficient growth to imbibe them.

Fifth, burying it deep is similar to keeping the bottles continually sealed.

Sixth, land highly charged with manure, if plowed in the fall, should be plowed so deep as to bury all the manure, that the frosts may seal up the gases and keep them for use the ensuing summer.—These are but few of the inferences from the experiments of Sir. H. Davy.

Now it is very desirable that some of your wealthy and intelligent farmers should make some such experiments as the above. They would confer a great favor on the whole farming community. They have means and leisure, and can do it.

I would add, that taking the hint from Sir. H. D., I tried the same experiment with plaster of paris in my corn field, with precisely similar results; that is, setting the plaster in dishes under the hills in the field, promiscuously, where there had been no other plaster used. H. S. P.

SUGAR.

It is not true that sugar candies are of themselves injurious to the teeth or the health of those who use them; so far from it, they are less injurious than any of the ordinary forms of food when employed in moderation.

Any scientific dentist will tell you, that the parts of teeth most liable to decay are those which afford lodgement to particles of food; such particles being decomposed by moisture and heat, give out an acid, which will corrode steel as well as teeth; but pure sugar, and pure candies are wholly dissolved, there is no remnant to be decomposed to yield this destructive acid; we remember now no item of food which is so perfectly dissolved in the mouth, as sugar and candy. When visiting the sugar plantation of Cuba, the attention was constantly arrested by the apparently white and solid teeth of the negroes who superintended the operation of cane grinding; they drank the cane-juice like water, there was no restraint as to its use, and the little urchins playing about, would chew the sugar-yielding cane by the hour. It is much the same in Louisiana, where the shining faces and broad grins of the blacks are equally indicative of exuberant health and "splendid teeth."

How does it happen, then, that there should be "the prevalent belief" that sugar and sugar-candy destroy the teeth and undermine the health? Perhaps the most correct reply is tradition, the father of a progeny of errors in theory and practice; of errors in doctrine and example, "too tedious to mention."

We should never forget that the immoderate use of anything is destructive to human health and life, if persevered in. The best general rules to be observed are two:

1. Use concentrated sweets at meal times only.
1. Use them occasionally, and in moderation.

—*Hall's Journal of Health.*

Correspondence.

For the Christian Messenger.

Address to Mr. Thomas A. Higgins, A. B.

RESPECTED TEACHER,

We, the members of the several classes under your tuition, have long been desirous of giving expression in some appropriate manner to those sentiments of gratitude and affection with which your unwearied labors for our intellectual and moral improvement have inspired us. And especially as time in its rapid flight has brought nearer and nearer the period when those ties, which have so long held you and us in the endearing relationship of teacher and pupil, are to be finally sundered—have we felt that desire increase?

We therefore hail with delight the present opportunity of publicly testifying, at the same time our grateful sense of the faithfulness and ability with which the duties of your office have ever been discharged, and of the kindness and friendship which have uniformly marked your more private intercourse with us.

And, while we cannot but be sensible, that, in view of the philanthropic and holy calling, for which your present situation is to be relinquished, any attempts to prolong your stay would be selfish and unworthy: we beg leave to assure you that the period of your departure has been anticipated by us, with feelings of unmingled regret.

The period, Sir, during which we have enjoyed the benefit of your instructions, has been one not soon to be forgotten by any of us. The position in the ocean of life will be marked by many pleasing associations, long after the current of time shall have obscured its outlines.

That Heaven's richest blessing may ever attend your self-denying labors, for the good of your fellow men, and that peace and prosperity may be your constant companion in the walks of domestic life, shall be subjects of our warmest prayers.

And now, on the eve of separation, we respectfully request your acceptance of this small selection of books; consisting of Gibbon's Decline and fall of the Roman Empire, in 6 vols., and Macauley's History of England in 4 vols.; fully assured that the gift will be valued in your estimation, not according to the extent of its own intrinsic worth, but to that of the sentiments that have prompted the bestowal.

And may the great Father above, instruct both teacher and pupils in the mysteries of true wisdom, and eventually bring all to a happy reunion in those blissful regions were "Adieu and farewells are a sound unknown."

Presented in behalf of the rest by

JAMES E. WILLS.

J. G. Payzant; Robt. Jones; Edward Hickson; J. G. Morton; Joshua Freeman; William Wickwire; O. G. Berryman; Nicholas Smith; J. G. Goucher; M. Balcom; A. Crocker; W. G. Brown; T. H. Rand; W. H. Porter; M. P. Freeman; T. E. Wills.

REPLY.

MY DEAR FRIENDS,

I can assure you that I express but little of what I really feel, when I tell you that this manifestation of your regard does most deeply affect my heart. It forces upon me the painful truth, which my own inclinations would strive as long as possible to conceal, that the connexion which has so long existed between us, and to me at least so interesting and pleasing, is soon to be severed. You speak of the pleasure you hope to experience in reviewing this period of your history. And I too, I trust, shall, wherever my lot may be cast, regard this period as one of the sunny spots of my life.

I very sensibly feel, dear friends, that I do not merit this testimony of your regard. But I do with great pleasure embrace this opportunity of bearing witness to your ardor and zeal in the pursuit of knowledge; your willingness to grapple with difficulties, and in many instances your more than usual ability to conquer them. Whatever has been your success in the inquiries in which I have had the pleasure of directing, you owe it all to your persevering industry. I have often wished for an opportunity to express publicly my feelings. I admire, I love the persevering spirit that many of you have manifested; and if I thought that advice from me were necessary or pertinent, I should only say "go on in the same firm resolves, and difficulties will vanish before you, and with God's blessing ere

many years have passed away some of you shall occupy places of trust and influence." I would say "go on through life relying on your own strength, and God's strength—and success is yours."

But my dear friends I cannot in justice to my own feelings allow this opportunity to pass without thanking you all most sincerely for your kindness towards me on all occasions, and for your willingness to comply with my wishes. I must now ask your forgiveness and God's forgiveness, that in return for all your kindness I have manifested so little interest in your welfare, especially, your spiritual welfare.

This neglect gives an additional pang to the thought of parting. And yet I have not been so uninterested in this particular as may have appeared. I have often tried to pray to God for you; and I have observed with great delight a gradual but rapid rising up into a higher state of morality and religious feeling, and I am confident I express the views of your worthy principal and of all, when I say that at this institution there never was more if as much real genuine worth and sterling piety, than have been during the past year. For this we give God the glory, and congratulate our country in the prospect of its educated men being also pious, godlike men.

May God's richest blessings, my dear friends, be ever yours. The beautiful and valuable selection of books, you have presented, shall always be to me a memento of by-gone days; a memento of acquaintance and warm friendship of Acadia. Ah! there are some circumstances in common with my residence at Acadia College which can never die out of my memory. I trust this shall be one of them.

Be assured my dear friends that wherever my lot may be cast, whatever my conditions, while I live, I shall always be pleased to hear of your success. I shall rejoice in your joys, and grieve in your sorrows. And, in harmony with the closing thought of your address, may the Great God grant that we may so live and believe, that if this parting should prove final in this life, our friendship may be re-commenced in a happier and holier state.

Wolfville, June 18th, 1856.

For the Christian Messenger.

Notes of a Tour in Nova Scotia and New Brunswick.

Leaving the interior of Queen's County Nova Scotia, with the intention of visiting New Brunswick, my first route was to meet the steamer at Annapolis. To do this we had to pass through a wilderness for about 30 miles in order to be in time for the boat. Our chief pleasure did not consist in urging on a lazy animal, but we beguiled the tedium of the journey by endeavouring to introduce ourselves to the various plants and flowers which stood by the way displaying their charms. At length emerging from the woods upon a hill, the little town of Annapolis burst upon our view. Then the noble valley, right and left caused its panorama to pass before us. The winding river sent up its silver light. The North mountain seemed to welcome us, with a majestic bow. Having embarked on board the steamer, the next morning found me in St. John.

I had intended to proceed immediately for Amherst by the steamer. But finding that I could defer going for a few days, and then be in time for the Association—I decided to take a short excursion up the St. John river. This stream is navigable for nearly 300 miles. It passes through a district of vast agricultural resources. We have nothing in Nova Scotia which compares with it. The valley of this river surpasses the Annapolis valley, as much as the valley of the St. Lawrence exceeds that of St. John, or as much as the valley of the great Mississippi with its branches, exceeds that of the St. Lawrence. As our noble Annapolis valley has no navigable river, it needs a railroad to develop its vast resources and enable us in any degree to compete with our neighbours. The St. John river passes through a region of almost uninterrupted fertility. Though it is settled nearly the whole way, yet the soil is much neglected.

It is difficult to imagine why the people should be willing to leave their beautiful farms, to dwell in a miserable hut on a raft of logs. I noticed several such cases. I noticed also the effect of this on the country. The great scarcity of orchards, for instance, and the entire absence of regular nurseries, show that the New Brunswickers, as well as the Novascotians, have scarcely mastered the first elements of successful

husbandry. Instead of seeing rolled upon the deck, every few miles, cargoes of all kinds of produce, the most that I saw put on board, were a few firkins of butter, a few barrels of potatoes, and a few live sheep or calves.

If we turn to the natural scenery of the river, we shall be able to indulge in more agreeable reflections. As my journey only extended to Fredericton, a distance of but 80 miles, I can speak only of this part. And it is said that this is inferior to the country above Fredericton in extent, in fertility and in beauty. The steamer starts from Indian Town just above the rapids and the suspension bridge. Along the whole way no high mountains are seen in the distant background. The view is limited to the river, a green strip of moderate elevation on each side, and the blue canopy of heaven above. In ascending the stream from Indian Town to Sheffield, about 62 miles, the hills recede, and the view gradually widens from two or three miles to more than twice that distance. The rugged limestone elevation covered with stunted evergreens, is gradually softened down into a fine sloping declivity, or a smooth interval, shaded by the elm tree, with its branches gracefully waving in the breeze, or hanging down to the waters edge.

Where the water is clearest it is of a greyish color. It nowhere has the dark brilliant green or the ethereal blue of the Niagara River. Near Indian Town the water is comparatively pure. But as we approach the region of Sheffield, from the alluvial nature of the soil, it becomes muddy. Here also as the mountains recede and the country becomes level, several islands are formed in the river, on which the grass grows luxuriantly. Far below Sheffield as the rocks give way to the mellow soil these islands begin to appear. In the upper part of the river they are elevated several feet above the water in summer, though overflowed in the spring. But farther down where they commence to be formed they are low and skirted near the edge with rushes, which seem like a silken carpet of beautiful dark green, which no human pencil could imitate, spread upon the waters.

But in mapping the river we must not suppose that the banks we formed by rigid straight lines. Nature does not lay out her work in this way. Sometimes the river widens out into a bay, drives the mountains before it and embracing on its bosom an island or more. So of the hills on either side of the river. They are diversified, sometimes rising up into an eminence never very high, at other times separating so as to admit a tributary stream, or a shady valley.

If space permitted I might speak of several particular localities along the river which struck me as peculiarly pleasing. As an instance of this I might refer to Gagetown, a few miles below Sheffield. It is a thriving country village, seen in the distance on a gentle declivity on the South West bank. It is distant enough to call up the imagination and make the view enchanting. It is approached by a creek, and in front of it is a broad interval on which the tall luxuriant grass was waving in the breeze. On the opposite bank is the Jemseg river issuing from the Grand Lake, which itself may be seen from the deck sparkling through the green trees in the distance.

On going up from Sheffield to Fredericton, the scenery again changes. The level marsh rises up into a gravelly hill. The graceful elm is supplanted by the hardy spruce. The muddy water of the river becomes again pure. Notwithstanding this change, the scenery has not lost its beauty. Fredericton is on the S. W. bank, on a point of land around which the river bends in a graceful curve. It is well laid out in squares. It has four streets parallel with the river, and four at right angles with these which run back from the river in a straight line until they are lost over the brow of a hill a mile distant. It has about four thousand inhabitants, and derives its chief importance from its central position. It is in my opinion injudiciously made the seat of government and of education. About the centre of the town is the Baptist chapel and seminary. This last is under the control of the Rev. Mr. Spurden, whose kind hospitality I enjoyed for the night.

St. John, July 4th, 1856.

D.

THE DIVINE BLESSING.—If there is any time when we need, more than at others, the Divine blessing, it is when we are least thoughtful of our dependence upon it, and least disposed to ask for it.