

The Carleton Sentinel;

AND FAMILY JOURNAL.

Devoted to Agriculture, Literature, and General Intelligence.

Published and Edited

"Our Queen and Constitution."

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NUMBER 23.

TUESDAY, NOVEMBER 26, 1850.

VOLUME 3.



AGRICULTURAL.

[From the Journal of the Provincial Society, for the Encouragement of Agriculture, &c.]

Stable Manure has been called the farmers sheet anchor and is the first and best of fertilizers: not only does it serve directly as food for crops but it disposes of other substances to ferment and resolve into the soluble nutriment of growing plants, by which process death and putrefaction are transformed into life and luxuriance.

This useful material consists of the dung of horses, cattle and swine mixed with litter, coarse hay, and weeds, all trampled, moistened with urine and more or less decomposed: it is made up of the products and remains of every kind of crop, and therefore contains those elements from which every kind of crop may be fed and reconstructed: chemically its composition is as complex as that of the crop itself, but carbon, water and silica always constitute its bulkiest portion: both its composition and its power or value is, however, extremely variable: these depend partly in proportion of animal and vegetable matter, partly on the kind, the condition and the food of the stock, partly on the time which has elapsed since it was dropped, and greatly according as the liquids and gases evolved from it, have been allowed prematurely to escape or not.

The indifference so generally shown throughout the Province to the collection, preparation and economy of these substances is one of the great causes of the impoverished condition of the farms: in this direction therefore reform must begin, for otherwise there is no hope: without stable manure which is the raw material of crops, no crops can be manufactured, and the fermentable materials cannot be fermented. It is rather surprising that although stable manure has been almost the sole dependence of the farmers in this Province for the improvement of their land there should have been at the same time such utter carelessness in collecting and preserving it in its most available condition: the practice of throwing it out from the barn window from day to day so as to expose it to snow and rain, sun and wind cannot be too strongly reprobated, for it is easy to see that great part of its value is thus destroyed, and little remains but a short straw, which may be again culled over by cold, ill-fed cattle who seem thankful for even that bite: in England it is generally admitted now that stall or shed—feeding and soiling cattle is the most profitable in every way, one cow may thus be made to produce about 9 tons of solid dung per annum, but it may be some time before we can get labour cheap enough to adopt this practice in New Brunswick: there is however, one point which we consider to be well worthy of attention by all who are anxious to economize in this direction: it is a frequent practice in this country at present to enclose a small piece of ground in a field near the road and then to yard the cows from milking time in the evening until the next morning: it is quite common to see from 5 to 20 head of cattle thus brought together every night during the summer season, while the valuable manure which they make is left exposed to sun and rain until it becomes almost or quite worthless. This wasteful practice of manuring the atmosphere as well as the soil ought at once to be done away with, and in lieu thereof we would recommend either that the cattle should be put up in the well littered and ventilated stable, or in the barn yard, giving them a bedding of straw, peat leaves, or even saw dust to absorb the urine &c., one ton of dry straw may thus by skillful treatment be converted into three tons of manure. Where the premises are sufficiently commodious the different kinds of manure should be collected and kept apart until it is considered proper to mix them together, and the greatest care should always be taken to prevent the escape of the strong smelling ammoniacal gas, upon which not only the fermentative but the fertilizing virtue of the manure mainly depends: this may be done by using a cover or fixer as already suggested, by treading or beating the mass compactly together, or by saving the urine, and keeping it apart from the solid dung. If we save the urine from washing by rain or snow water we will likewise economize not only ammonia but many other valuable ingredients:—another important object should be to prevent the commencement of fermentation until near the time

when the manure is to be applied to the soil. By covering with sods or bog earth, treading and pressing so as to prevent the access of air, and by keeping the whole cool and dry we may easily effect this, while by forking, turning, evenly mixing and moistening it (with urine if necessary) during the warm weather we readily induce and regulate the putrefactive fermentation: when once begun in the heaps let it proceed steadily, and then, after one or two turnings, apply it to the land in the spring or autumn ensuing, before the fermentation is completed, so that the latter part of the process may take place in the soil.

Long or partially fermented dung is best for clay lands, because the straw helps to open their texture: in our climate, when used on light soils it is apt to become too dry, and to stop fermenting altogether: Short or well rotted dung is best for light, and particularly for root crops which germinate quickly and require a full supply of food from the beginning.

The Hog Pen is an important source of manure for the compost yard: from one hog properly fed and littered we may make more than two waggon loads in a year: by using bog earth for litter and throwing in a handful of corn occasionally they will incorporate the bog earth with their droppings so as to give rise to a most valuable compost: hog's dung ought always to be mixed with other manures. Where many sheep, fowls, and pigeons are kept, much valuable matter also accumulates, which ought to be saved: it will prove nearly as useful as guano. Few farmers are aware of the value of the urine that is suffered to be wasted on the farm, in the course of a year. Weight for weight, the urine of animals may be considered as powerful as their solid excrements, and pains ought to be taken to save every drop of it. One cow passes about 1000lbs. of urine in a year and this is considered in Flanders to be worth £3, and to be a full manuring for one acre of land. The urine of man and of the horse is also known to have a greater fertilizing power than that of the cow.—Leibig says that the urine of one man for one year will manure an acre of land, and that a pound of urine contains the elements necessary for one pound of grain.—Much greater economy ought therefore to be practised in regard to this substance which is so rich both in nitrogen and phosphates. By the proper use of mould or bog earth, much of it may be saved, while the peat itself is made to ferment and decompose thereby: a pit capable of containing twenty or thirty loads of bog earth may be so arranged as to receive all the urine of the stables. Another way is to build a proper reservoir to collect it, and in which it is to be allowed to ferment for a time, then mixed with water and applied on grass or other land: or in the liquid form it may be applied to the manure or compost heaps so as to promote their fermentation; on this subject Loudon says, (Encyclopedia of Agriculture p. 341) "We would strongly recommend the practice of saving urine in tanks to the British farmer, and not to the farmer only, but to every cottager who keeps a cow or pig; nay to the cottager who is without these comforts, but who has a garden in which he could turn the great accession of manure so acquired to due account. Let him sink five tubs or large earthen vessels in the ground and let the contents of the portable receiver of his water closet, all the water used for washing in the house, soap suds, slops and fermentable offals of every description during a week be carried into one of those tubs: and if not full on the Saturday night, let it be filled up with water of any kind, well stirred up, the lid replaced and the whole left for a week. Begin on the Monday morning with another tub, and when after five weeks the whole five are filled, empty the first at the roots of a growing crop and refill. Or use two large tubs, and continue filling one for a month, and at the end of a month empty the first, and so on."

The Drainings of the Dung-heap ought never to be allowed to be lost: they are of very variable composition, but are often more valuable than the urine alone—they are liquid manure of the best kind. By the use of bog earth to absorb them or by the means of properly constructed drains it will be easy to economize the whole.

Lime is a substance which has been long known for its beneficial effects upon land, and may be added with advantage to most of our soils: Analysis has shown that it is generally deficient in the soils of New England and New Brunswick, and that such is the case even in the limestone districts.

Its application in this Province will, however, be chiefly determined by its price when delivered at any given place, and by the means and intelligence of the farmer. Limestone is a natural compound of lime and carbonic acid, though it generally contains few other substances in combination.

CATHOLICISM.

The head of the Roman Catholic Church has prohibited distinguished English and American Protestants the privilege of worshipping God in their own creed, in Rome.—These are the people who are raising a Catholic political party in the United States, under the auspices of Bishop Hughes, to exclude the Christian Bible from our schools, whose mad measures in connection with time serving political demagogues have forced into existence the Native American Political Party in opposition to Catholic Political Party, out of which have sprung those dismal scenes of riot, anarchy and bloodshed, which have desecrated the city of William Penn, and which even threatens the stability of our political institutions. This is the offspring of a religious hierarchy, which becomes all things to all men, to accomplish its object. In Europe it shouts hosannah to despots, and lends its sanction to oppression of every grade of horror,—from the dark dungeons of the inquisition, to the gibbet of the throned despots,—but this country is allied to an ultra democracy, and signs peace to the largest liberty. From such a political ecclesiastical establishment, human liberty has more to dread than from all other causes. And it becomes the press, the pulpit and the schools, to guard well the citadel of liberty against this, her most dangerous foe.—*Olive Branch.*

CATHOLICS HATE THE BIBLE.

The Catholic Telegraph, a leading paper, lately contained a long editorial on the changes of Protestantism, in which he shows, plainly enough, what he would do with the word of God if he had the power. He attempts to ridicule its circulation.

"The world has been promised for the last 30 years the most extraordinary blessings by the Bible Societies; there is not a nation from east to west, from north to south, which has not been represented in their annual reports, as 'white for the harvest.' The Bible of King James has travelled and seen all the world. It has crept along the canal backwards and forwards; it has coursed up and down the great rivers: it has been muttered in the classroom, and pounded in the work-shop.—Luther has shaken its leaves like tempest, Calvin has had his turn, Zuinglius and Melancthon, Cranmer and John Wesley, Swedenborg, Miller, and a mighty host of disciples, have all tossed it about the world. The Bible! cries one; the whole Bible! cries another; and nothing but the Bible! shouts a third; and the whole earth is roused by their wonderful exultation. The excitement has been kept up with considerable effect for some time but people, a little more knowing than others, begin to suspect that they have been slightly—delicately humbugged! The Bible has been everywhere circulated, and strange to say—crime has been steadily increasing."

If hatred can scarcely be concealed in a Protestant community, where an universal feeling in favour of the Bible exists, what would Popery do if it had its own way?

THE BIBLE.

The religion of the Bible, though having its earthly birth in the tent of a fugitive Hebrew, and reaching its maturity in the cottage of a peasant of Nazareth, has made its way over the whole earth, has come down through thirty centuries, and is still the chief source of spiritual life, the main support of moral effort, the prolific principle of high thoughts and pure aims and noble deeds throughout the civilized world. And if from the the surface you enter into the depth of society you find the Bible the parent's charter book, the child's delight, the old man's comfort, and the young man's guide. In its pages the sick and weary find the solace which they need, and the tempted meet with timely succor. Its words whisper hope and peace to the dying, and minister daily food to the healthy and vigorous household. With the pious music of its sublime or plaintive songs, echo the roofs of ten thousand times ten thousand christian temples, and the child's prayer night and morn is hushed forth in the simple and comprehensive words which were dictated by Him who is its central light. The poetry of the Bible has been the forming power of the greatest modern poems, for Tasso, Milton, and Cooper, present in high relief the features of its moulding hand. And its high and aspiring spirit, its heavenward tendencies, its ethereal grandeur, have given birth to those sublime creations in architecture and painting, which are seen in the works of Michael Angelo, and may be designated the school of christian art. Nor is there any department of human thought or effort that biblically educated men have not enriched or adorned.