

and a brick foundation. It is true clay already saturated with water will hold water on the surface like a basin, for a very good reason, that it is already full of water and cannot take in any more; but once provide the means of escape under clay, with alternate dry and wet lays, and it would puzzle a conjuror to keep the water from sinking through it. If any man doubts it, let him dig an underground cellar in clay, and see if he can keep the water from coming in, even though well bricked.

Tapping the land when full of water is, after all, like tapping a cask—the liquor runs out at the bottom and the cask dries at the top. The deeper the drain or tap, the greater the pressure from above. As the liquor flows the air must follow. If you doubt it, consider that no liquor can flow out of a cask if you keep in the vent peg and prevent the air entering. Independent of the capillary reasons why deep drains act best (as explained in my 18th letter), we must consider that the deeper the drain the more steep the incline; and we all know that water will rush quicker down a steep hill than a gentle slope. Those who consider one inch pipes too small would find how soon such a pipe running constantly would empty a large pond. Of course where springs are to be drained, the size of the pipe must be regulated by the quantity of water. It is well known in sewerage, that small drains, if not too small, will keep themselves clear better than large ones; and as to expense, why, it must be bad policy to use large pipes and large cuttings, where small ones will answer better—no rats or vermin can enter one inch pipes. It is lamentably painful to contemplate the condition of our heavy undrained lands during a wet winter. Look at them now, filled with water to the surface, consequently unable to receive or appropriate that best of manures, the heavenly rain. Every hasty or continuous shower scours the surface, driving down the furrows in turbid and wasteful streams, the very essence of the soil—those finely comminuted, disintegrated, and valuable particles, which the farmer has, with so much perseverance and costly labour, exposed to the vivifying and advantageous action of atmospheric alterations. But let us carry our perspective to the months of March, April, and May. Is the prospect less dismal and distressing? No! the blessed sun shines on the sodden and saturated soil; but it is dead and impervious to its invigorating rays. The imprisoned water having no escape downwards, can only be released as steam by evaporation, carrying with it the heat which should warm the soil, and leaving behind a death-like coldness, which is well attested by the sickly and yellow plants. Poor things, many die, leaving their hardier companions to struggle on in hopes that a parching summer may do that naturally by gaping cracks, which man is too poor, too niggardly, too ignorant, or too prejudiced, to effect by cheap drainage.—*J. Mechi.*

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We regret, for the sake of the country, how little interest is manifested by the Montreal community for the improvement of the agriculture of this Province. A Meeting, called in the beginning of April, to petition the legislature to abrogate the act so lately passed for the protection and encouragement of agriculture, was most numerously attended, though the act in question has not been in force a sufficient time to allow it anything like a fair trial, or, in fact, any trial whatever, because not less than three or four years would be necessary to allow farmers to introduce the improvements and stock required for a fair experiment under the Protection Act. Had a meeting been called to institute an inquiry into the state of Canadian

agriculture, and the best means to be adopted for encouraging its improvement, we will not say there would not one individual attend who was not an agriculturist, but we may say there would be few, indeed, of any other class. We deplore this state of things, as it is the best educated and wealthy classes we would expect to take some interest in the real improvement of this naturally fine Province. It has been stated, that the large amount expended upon the improvement of the St. Lawrence Canal, the water communication connected with it, and with the great Lakes of Western Canada, will be thrown away and wasted, unless there is free admission of the agricultural products of the United States. For our own part, we have constantly advocated the expediency of this grand improvement of water communication in progress towards completion, and, as we often said, and now repeat, we would not deserve to possess this noble country, if we did not commence and complete these improvements independent of any prospect there might be of transporting the productions of the United States by these water communications. The Province of Canada extends along the line of the St. Lawrence and great Lakes about fifteen hundred miles, and northward to the Pole, and contains more than double as many acres of excellent land, in the immediate vicinity of this line of water, as the whole of the British Isles. This vast quantity of cultivatable land is all situated within the 48° of north latitude. Surely the expenditure upon the improvements referred to, should not be considered a waste, though solely expended for the benefit of our own territory. If we refer to the British Isles, we shall find one hundred times the amount expended on their internal means of communication, though they are surrounded with the sea, and with the best sea-ports in the world in all directions. We would exceedingly regret the expenditure upon our canals and waters, if this expenditure was made only with a view of carrying the productions of a foreign country. We have no objection to the carrying of foreign productions, but we object to the neglect of the improvement of our own great means of production, while we are so anxious for the comparatively trifling gain to be derived by the carrying of foreign productions. The general interests of Canada depend upon the quantity and value of her own productions, not on those of another country; and they alone can be the true friends of Canadian prosperity, who will use their influence to improve the country and increase its productions, and those who will not act thus, should at least abstain from any act that would be calculated to discourage the improvement and lessen the productions of their own country.

Perhaps it may be thought that we might occupy the pages of this Journal more usefully than in the discussion of this subject. Convinced, however, that it is fruitless to suggest