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Reports, Discussions, &c.

TOWNSHIP OF HAMILTON FARMERS' CLUB.

At the meeting of the Township of Hamilton Farmers' Club held at Dixon's Inn, Court House, on Saturday January 28th, 1854. Alexander Alcorn, Esq., President, in the Chair.

Present—Messrs. M. Eagleson, Richardson, G. Black, Wade, Haywood, Taylor, Masson, Bourn, Bennett, Wright, J. Underwood, G. Underwood, Phillips, D. Black, Forsyth, A. J. Burnham, Sutherland, Dixon, &c., &c., &c.

The minutes of last meeting were read and approved, and Mr. George Black introduced the subject for discussion, viz., Draining, as follows:—

As stagnant water chills that genial warmth necessary to vegetation, all lands will pay for draining to such a degree that not only the surface but the whole of the staple or vegetable mould will be preserved in a sufficiently dry, healthy and friable state. Lands which are the chief objects of these improvements will seldom be brought to that state of perfection of which they are capable without the aid of covered drains held pervious by some substantial material, as stones or tiles, mere surface draining being at best an unprofitable substitute, because it does not draw the superabundant moisture from the roots of plants, and secondly, it occupies too much surface. When the mischief arises from water being partially obstructed, or from springs, there is no remedy but detaching these by digging wells, or boring with the augur, or adopting some method of discharging them which will immediately leave the land dry.

In considering what is called deep draining, which is the only method or rather principle of training established on long experience, I shall endeavor to draw your attention to the following

facts. In order to conduct draining of this description to advantage, it is highly necessary to have a knowledge of the strata of the earth, and of the streams of water which slide between them from what are termed well springs. But I confess I have not that knowledge of geology which would enable me to point out clearly the many different positions of the strata, a knowledge of which is highly important in the operations of draining.— However, it is easy to conceive that the best method of preventing the well springs at the bottom of hills from keeping the land too moist is by cutting a deep horizontal drain on the side of the hill to intercept the water and carry it away, thus preventing its overflowing the level land on the plain beneath, then, with a level if necessary, find the lowest descent for an outlet, also the most proper course by which to discharge the water from the adjoining lands, commence at the lowest point, for instance a road, ditch, valley, or creek, cut the main leader perhaps up a fence side, when it may remain open until the foot of the hill is reached, when the plain which is too moist commences, then before cutting is carried farther it may save labor to tap with the augur between the wet and dry a little above where the oozings commence, to find the depth of springs, (that is to find the thickness of the upper stratum of the soil,) if these be only four or five feet then commence cutting the drain horizontally along the bottom of the hill to intercept the water, if the plain or field be conical or circular the water will run both ways, then an additional outlet must be made at the other side of the field, or it may happen that the field is lower in the centre than at either side, such being the case one leader up the centre will suffice. As the strata between which the water descends which forms these springs have generally the same inclination as the surface of the hill, or nearly so, it follows that the drain should be cut perpendicularly to the surface of the hill, as by that means the second stratum will sooner be reached. But if in cutting to the depth before mentioned you find the upper stratum is not cut through, and in consequence no water oozes into the bottom of the drain, it is then proper to bore with a five inch augur say three