

also. The breaking up of the sward and deep cultivation of the soil facilitate the sinking of the water, and expose a greater surface of soil to the desiccating influence of the sun and winds. Every old settler can bear witness to the remarkable and rapid change in the conditions of moisture of the prairies, which is also manifested by the gradual failing of the wells at numerous points. It is a common observation that they must be dug much deeper now than formerly in the same vicinity. The healthiness of the country has thereby improved, and the farmer is enabled to plant much earlier, and at points which were formerly too wet; his loss by the freezing out of the winter crops is much reduced. The droughts in summer and fall are perhaps also more severe at present, but an advantage can seldom be gained without some sacrifice, and a remedy is accessible if only we will apply it. It is "thorough cultivation and underdraining." Where these are practised, the roots are enabled to strike deeper, beyond the direct influence of the sun's rays; a much larger quantity of nourishment is presented to them; the humidity of the soil is equalized; its absorbing power for moisture and gases is vastly increased; and the growth of the plants is consequently much invigorated and placed beyond the reach of sudden changes of the weather. If the farmer, instead of superficially cultivating extensive tracts of land with an altogether inadequate labouring force, as I have frequently noticed, would thoroughly cultivate a smaller area, he would not have to complain so much of drought and failure of crops, and of the "giving out" of fields. Instead of exhausting his soil, he would make it richer every year; and, by making heavy and certain crops, he would find himself amply repaid for the increased labor, and reap more on an average on the smaller surface adequate to his labouring force, than before on the larger fields."

The correspondence of Jerome Nicklès continues to be full of very interesting scientific details, and all is the general resumé of science in its different departments.

BOOKS AND PERIODICALS RECEIVED.

- The Ice-bound Ship and The Dream.* By W. H. Montreal: Henry Rose.
- The Historical Magazine, and Notes and Queries concerning the Antiquities, History, and Biography of America.* December. New York: Charles B. Richardson.
- The Canadian Naturalist and Geologist, with the Proceedings of the Natural History Society of Montreal.* October. Montreal: Dawson & Brothers.
- The Canadian Journal of Science, Industry, and Art.* November. Toronto: The Canadian Institute.
- Hunt's Merchants' Magazine and Commercial Review.* December. New York: William B. Dana.
- American Literary Gazette and Publishers' Circular.* December 1st & 15th. Philadelphia: George W. Childs.
- Journal of the Proceedings of the Grand Division of the Sons of Temperance, Nova Scotia.* Halifax: James Bowes.
- Historical Collections of the Essex Institute.* October. Essex Institute, Salem, Mass.