

style mill that turned out the flour used by our ancestors is a thing of the past, and the skill and science displayed in the manufacture of that commodity now, has developed the growth of cities like St. Paul and Minneapolis; and Rat Portage bids fair, with its water power to rise to similar eminence.

But continuous cultivation rapidly exhausts the soil, of which Eastern Canada and the Eastern States are a living example, and the materials yearly extracted therefrom, must be returned by fertilizers, or the production fails.

In 1889 Mr. Gordon Brown calculated the amount of phosphorous actually contained in the grain annually shipped from the port of Montreal, estimating it for this purpose in the form of phosphoric acid. The shipment of that year amounted to 292,534 tons, and the quantity of phosphoric acid sent away in it equalled 2,340 tons. Taking the average quantity of this substance contained in good soils, he found this meant an exhaustion to a depth of one foot of 70,320 acres, in so far as phosphates are concerned, and that to restore this 5,850 tons of artificial manure would be required. The total loss of phosphoric acid in the year to Canada, he estimated, represented \$500,000.

This again leads to development. Our new phosphate industry, the product of which is not yet used at home, is in constantly increasing demand abroad, and when its necessity becomes apparent here, such development will take place around the scene of its production that will wake the echoes of the old Laurentian hills, and imagination would not be far astray in picturing at our Chaudiere water-power huge manufacturing establishments for grinding, treating and manipulating this necessary adjunct to wheat growth, long after the present lumber business has removed to points still further away.

Another valuable point about plant life is, that where one species fails, another may succeed. Tea cultivation succeeded the old coffee plantations of Ceylon when they gave out, and the same may be said of fruit culture. Dye plants are now scarcely cultivated, a chemical treatment of coal tar producing to-day most of the dyes of commerce, and the land that yielded these plants is turned to other uses.

As regards animal life, that has had much to do with the civilization of the world. From the days when the patriarchs of old moved