

about the lumber of those districts, and they will tell you that year after year they are obliged to push further back from the river's edge into the depths of the forest, to find, with difficulty, any of that magnificent growth of pine of which, at one time, Canada could proudly boast.

It will not be many years, therefore, at the present rate of consumption, as well as needless destruction of the pine regions, before Canada will need all that remains of constructive timber for home consumption, and then a source from which her merchants have hitherto derived great wealth and her people employment, will be closed for ever, unless speedy and prompt measures are taken to check the waste and renew the growth.

There could be no nobler stimulant for the formation of a society than one chartered and organized for this great object, and the first men in the country might feel proud to be at its head. A contemporary, in writing on the subject of the destruction of trees going on in the United States, makes some most sensible remarks, a few of which are contained in the following extract:—

"Now consider the enormous amount of lumber used yearly in manufactures. Nearly \$144,000,000 is invested in the sawn lumber industry alone, that is, the production of laths, shingles, and boards. Add to this the fact stated by Professor Brewer, that wood forms the fuel of two-thirds of the population, and the partial fuel of nine-tenths the remaining third, and some general idea of the enormous drain constantly in progress upon our forests will be reached. This, however, is only the direct draught for purposes of utility. Immense areas of woodland are yearly denuded by forest fires, large tracts are purposely burned as a speedy way of clearing, and thus the wooded regions are rendered more and more sparse. If forest fires were prevented as far as is practicable, if trees were constantly being planted, and if the reckless denudation of woodlands could be stopped by the laws already in existence, but apparently not enforced, there is little doubt but that we possess timber enough to supply indefinitely all our needs either as fuel or for manufacturing purposes; but save in isolated instances trees are not being planted, we have no schools of forestry such as exist in Europe to encourage sylviculture, and, as the recent proceedings in Congress have shown, a part of the population claims the right for private ends to denude the woodlands now owned by the whole country, and defenders in the Legislature are not wanting to support them.

"We have already taken occasion to point out the dangers which result from tree destruction. The exact relation of forests and rainfall is not definitely settled; but there are very numerous cases on record where the destruction of forests has resulted in the production of desert wastes, and where trees have been replanted humidity has returned. It is laid down, however, by such authorities as Dr. J. Croumie Brown, of Scotland, and others who have made especial studies of the subject, that "within their own limits and near their own borders forests maintain a more uniform degree of humidity in the atmosphere than is observed in cleared grounds. They tend to promote the frequency of showers, and if they do not augment the amount of precipitation they probably equalize its distribution through the different seasons." "In India," says Mr. B. G. Northrop, in a late address before the Connecticut State Board of Agriculture, "three quarters of a million people have been starved to death since the forests have been cut off, causing the springs to dry up."

"It is needless to multiply warnings of this kind. In the thickly settled countries of Europe each generation is bound by law to leave the forests in as good condition as it found them. Forests are protected from fire, and they are regarded as public property. Until we adopt some similar course, each succeeding generation will transmit to posterity woodlands more and more depleted. The result is only a question of time. The natives in parts of South Africa tell of giant trees and forests, fertile lands, and abundant floods and showers, all existing or occurring in a region now little more than a dry and arid desert; such will be the traditions of our own descendants. As the soil becomes unfit for agriculture, migration will follow, favored regions will receive an overplus of population which cannot obtain all its supplies from the soil, and dependence upon other nations for necessities of life, the first step downward in a country's decadence,

is taken. Exhaustion of resources must ultimately succeed, and with it the end of national existence."

We will not go so far as the writer of the above in agreeing entirely in the concluding portion of his remarks, for any country inhabited by an intelligent and thinking mechanical race, like Canada or the States, would anticipate, before too late, the loss, and find the remedy necessary to check the evil by replanting the land. But, in the meantime, there are thousands who never can realize the idea that the timber of this vast country is fast becoming exhausted and destroyed, until the facts are brought in truthful figures before them.

One of the first things necessary for a society to do would be to endeavor to renew the forests, which could be done at a very trifling cost, and these forests would, in half a century, become a source of future wealth to the country. If all agriculturists whose farms are bare and bleak from being denuded of the primeval growth of timber, of every description—this is particularly the case on the prairie farms in the Province of Quebec—would commence at once to plant groups of trees, for shade and cattle shelter, and plant the unproductive spots which are to be found on every farm with quick-growing timber, they would not only benefit from its influence on the climate, by breaking the sweep of the bleak and cutting winds, and by retaining a moist atmosphere in their neighbourhood, which otherwise would be parched up with dry winds and heat, but they would be erecting on the soil a savings bank and a mine of wealth, on which their children, in years hereafter, could, from time to time, draw a cheque. The subject is one of great importance, and well worth the gravest consideration of our statesmen.

SEEING THE EARTH GO ROUND.

The directors of the forthcoming Paris Exhibition propose to repeat Foucault's experiment on a large scale, and to demonstrate to *tout le monde* that the earth does revolve. The experiment depends upon the property of a pendulum to keep swinging in the same plane if its support is free to move; and if we could set up a suitable pendulum at the North Pole, we should see it swinging round the circle once in twenty-four hours, but at the same time we should not know that it was the earth that was moving, and not the pendulum. At any place not directly over the axis of the earth the point of suspension partakes, of course, of the rotation of our planet, and a correction for that movement would have to be made; but, as that can be calculated to a nicety, the demonstration of its correctness afforded by the pendulum would be proof of the rotation of the earth. Foucault's experiment was made under the dome of the Pantheon at Paris, and it was repeated in America; but the proposed exhibition will carry it out on a larger scale. The weight of the pendulum to be erected in the Champ de Mars will be about 660 pounds, the length of the rod being some 220 feet. It will be hung in such a manner that the points of suspension will be free to move, and consequently the pendulum will continue to swing in the same plane, or nearly so, because the friction of the supports will necessarily exercise some effect. The spectator, standing on what appears to be a stationary floor, will notice that the pendulum changes its line of oscillation as regards the floor, and if he understands the question to be answered he will know that the floor upon which he stands is being carried round the pendulum by the rotation of the earth. Professor Tobin, of Richmond, Kentucky, has recently devised an improvement on Foucault's apparatus, his pendulum being hung to a stand about 6 feet high, in such a manner that the rotation of the earth is shown by the changed position of an index which moves over 1 deg. of the scale in about six minutes. His pendulum is moreover so delicately suspended that it maintains its motion for about 12 hours, and yet can be retarded, or even stopped, by blowing upon it.—Echo.