

during that period was 43 4-10th pounds to every square foot of surface, equal per acre of 43,660 feet, 1,890,504 pounds. From this it is clear that the amount of water by evaporation from an acre of woodland exceeded the quantity of rainfall during the same period by nearly 1,000,000 pounds of water to the same area, and, if the calculation had taken in fifteen hours to the day in July and August, as expiration goes on rapidly when the sun shines, the quantity would have been much larger.

Such experiments are of vast importance in determining the proportionate quantity of timber to cleared land, in order to secure a sufficiency of rainfall during the summer. But this one, though valuable in proving one of nature's laws, is not of any definite practical importance as a means of guiding us in Ontario, since our location is different with regard to many important essentials, such as soil, proximity to ocean, elevation above sea level, and relative timber and cultivated surface; but such an experiment, carefully conducted, in any particular locality, and careful estimates based upon it, should be able to estimate pretty correctly what area of leaf surface would be required to insure a full crop under ordinary circumstances.

[To be continued.]

Preserving Woods.

That mortar is a preservative of wood is a fact well known, and many instances are noted of its value for this use. It has recently been stated that a schooner of unseasoned Maine timber, laden with lime, which went ashore and bilged forty years ago, was raised some time after and is still in service. Another instance is that of a platform, consisting of nine planks, which had been used successively by father, son and grandson for mixing mortar, was thrown aside, allowed to be overgrown with grass, and after sixty years was resurrected, and found to be in a perfect state of preservation. It is somewhat remarkable that no systematic attempt has hitherto been made to utilize this knowledge; but recently a method has been brought forth in France, based on these facts, which is simple, cheap, effective, and requires no special apparatus. It is described by a contemporary as follows:—Pile the planks in a tank, and put over all a layer of quicklime, which should be gradually slackened with water. The time required depends on the thickness of the wood. Timber for mines will be thoroughly impregnated in about a week. The material is said to acquire remarkable consistency and hardness after this process.

The Big Trees.

The Secretary of the Interior in his annual report asks Congress to enact a law for the protection and preservation of the famous "big trees" of California. These trees, the giant redwood and the overgrown redwood, are found chiefly in two townships in the northern coast range, and a similar area in the southern part of the State, and they are not found of equal size anywhere else in the world. They are giants of growth, being 350 to 400 feet in height—and with a circumference in proportion; and they are as venerable as they are large, being at least a thousand years old. And yet they grow on public land subject to entry at \$1.25 per acre, and may be bought up and destroyed by anyone who wishes to make such a use of them. They have excited the wonder of scientific men in this country and Europe, and our government has been asked repeatedly to take measures for preserving them. It is to be hoped that Congress will comply with Secretary Kirkwood's recommendations.

HAUNTED ME.—A Workingman says: Debt, poverty and suffering haunted me for years, caused by a sick family and large bills for doctoring, which did no good. I was completely discouraged until one year ago, by the advice of my pastor, I procured Hop Bitters and commenced their use, and in one month we were all well, and none of us have been sick a day since; and I want to say to all poor men, you can keep your families well a year with Hop Bitters for less than one doctor's visit will cost."—*Christian Advocate.*

"AND fools who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zepson, Clergymen write us earnestly to its wonderful effects.

Chips.

OPERATORS in northwestern Wisconsin are building sun-shades over sections of their logging roads to save the little "slipping" there is on them. Sometimes these road shades are half a mile long. There is no end to the lumberman's devices for banking logs in all weather, and under all conditions.

THE Buffalo Lumber World says it is stated that there are about 3,000,000 acres of excellent pine lands in Louisiana, which are beginning to attract northern attention, and Michigan parties have recently purchased 11,000 acres in Calcasieu parish, with a view to the manufacture of lumber. These lands are offered at \$1.25 per acre, and a lumberman who smells pine land at that figure usually may be counted on to take up the trail. These southern pine lands will come into active demand much sooner than is generally expected, should the enormous requirements of lumber continue, and there is not much doubt on that score.

THE Chicago, Portage & Superior Railroad Company received a grant of 407,000 acres of pine land in northern Wisconsin for building its road. Sixty-four miles are already graded from Superior southward, and track laying will be soon begun. When this section of the road is completed the land grant will be fully acquired. Sixty miles of grade have been accomplished on the southern end of the line between Geneva lake and Jefferson. It is the intention to have the road completed and cars running between Chicago and Superior City, before the end of the present year. The opening of this route will develop a chain of lumber manufacturing along its northern section, and induce speculation in the pine lands that the company will acquire by its completion.

THE Lafayette tree which stood in front of the city hall, Portland, was cut down recently by order of the Mayor. For many years the tree has been patched and painted, but the rot has now conquered it. The history of this old elm tree is interesting. The Marquis de Lafayette came to Portland on the 25th of June, 1825. A public reception was tendered to him, and was held under the branches of this tree. An awning was spread from the cornice of the old state house to this tree and another one above, which fell in the fire of 1866. Lafayette stood under this tree and shook hands with whoever saw fit to present himself. This was the only tree within the burned district of 1866 which survived the fire. It marks the eastern limit where any green thing can live.

THE Kingston Whip says that the advancement northward of the K. & P. R. is leading to the rapid development of the resources of the back country. Mr. W. O. Carter, M.P.P., of Lanark, arrived in the city lately and conferred with the President and Superintendent of the railway, arranging freight rates for which the lumber from a new mill which he has in course of erection at the Clyde River can be shipped to the States via Kingston. The new mill will be located alongside the railway, so that every advantage can be given the shipper. The mill will have a cutting capacity of 6,000,000 feet per year, and is to be ready for operation by the 15th of April. The logs from the timber limits will be floated down the Clyde river. The amount of freight that the railway will have to carry is daily increasing.

JOHN NEWTON is about to erect a saw mill at Lachute, Que., where he has secured an eligible site. This section of country contains an immense unbroken forest, which only requires an outlet to make it a source of wealth to its owners, a difficulty which Messrs. Newton, Charles Vary, and others, intend to overcome by the erection of a timber slide from the mouth of Lake Louise to Lachute. A survey, with this end in view, has been carried on for some time, and, after tracing several available lines, one has been decided on which is almost a direct line between the points mentioned, and gives a splendid descent the whole way, with the exception of a short distance before reaching Lachute, which is rather level, but this difficulty will be overcome by staging, etc. When completed this slide will be a valuable accession to the province, and will open up a new source of supply for its lumber market.



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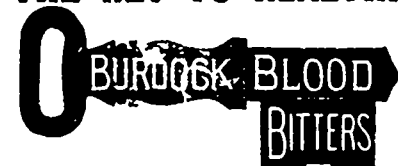
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