

themselves or secrete a dye that stains the wood. Some woods are much more resistant to attack than others. One of the chief causes of this is the presence of an antiseptic substance in the tissues that was produced when the plant was in life.

The only thing needed to render all cut woods immune from attack is to treat them with some preservative that will mechanically prevent the entrance of fungi and bacteria, or that will act as an antiseptic. From the practical side, such treatment must not only effect that end, but to say the least, should not injure the physical properties of the wood essential to wear, and must be within a certain cost. A few experiments have been made, and with some success. Thus it has been found that the life of white oak may be lengthened out to about 15 years after treatment with creosote and other preservatives. Untreated, they last about 10 years. Similarly some of the softer woods have been treated with advantage; indeed, some otherwise quite unfit for railroad ties, have been made to take the place of the rapidly disappearing oak. These experiments are hopeful, and give promise of an economical production of serviceable woods in an age in which economy is absolutely necessary if the supply is to be maintained.

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The subject (of forestry) is of importance far beyond the general understanding of the public. The growth of population in the United States has practically covered all the land which can be cultivated with a profit without artificial moisture. Irrigation and forestry are the two subjects which are to have a greater effect on the future prosperity of the United States than any other public questions either within or without Congress.—*Jas. J. Hill, President of the Great Northern Railway, in Report of American Forest Congress.*