(12) **United States Patent**
Morgan

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(54) **PRESERVING TIMBER, &C.**

(76) Inventor: **Charles Morgan**

Charles Morgan

Letters Patent

To all to whom these Letters Patent shall come, Greeting:

Be it known that I, the said Charles Morgan, have made a certain new and useful improvement in the process for preserving Timber and all kinds of Wood.

The nature of which invention consists in the following, viz: A vessel or Cistern must be provided for the purpose, of suitable dimensions for holding the quantity of the various Timber to be prepared. The timber either hewed or sawed is then placed in the Cistern. The largest pieces must be placed next the sides of the Cistern, and the smaller pieces in the middle, so as to have not more than three inches space from the bottom. A false plank is then put in at the same time, which must occupy the uppermost tier, and be placed on edge. The Cistern is then filled with sea water, or water containing Salt, so as to cover all the timber from six inches to twelve inches, and a sufficient quantity of fresh burnt quick lime is then put in, to saturate the water, a proportion of one bushel of lime to each barrel of water will be sufficient. The top of the Cistern being then covered down tight, so as to prevent the water from evaporating, which must be replaced from time to time with fresh water, as the Cistern must always be kept full. The same process must also obtain in respect to the Timber. The carbonic acid being attracted from the atmosphere by the lime, will form a thin crust or particle of the carbonate of lime on the surface of the water, which after a time will be precipitated and replaced by another thin particle which will be precipitated in like manner, and all the lime in solution, will become changed into a carbonate of lime, and will be succeeded by a small quantity of fresh lime every few months. It is the opinion of the Patentee from several years successful experiments that all kinds of wood sawed into plank from one to four inches thick can be perfectly prepared in one month in this way to resist decay for twelve months, and that larger timber such as logs of a foot square or more, would also in like manner be completely saturated in from five to six months.

The Patentee finds from his own observations on this process, that wood prepared in this way remains sound and free from any decay whatever, in any case it might be put in, even for perhaps

even a longer time than it would otherwise have been seasoned it might be. The same principles also obtains in the use of a composition as a Cement or mask of equal parts of lime ashes of wood Salt and Molasses reduced to a proper consistency with water and applied as a mask to shingle roofs two or three coats of which will be sufficient to protect the roof from decay. many years longer than it would otherwise and longer also than paint and will render preserve it as well as retaining just in the necessary substitution of any kind of wood on which it is planned now known of the names of pyroligneous acid or black in reality is the acetic acid containing with empyreumatic oil and bitumen. The acetic acid readily unites with all the alkalies and most of the earths

There is that the lime in the form of a hydrate instantly neutralizes the wood acid forming an acetate of lime by which a chemical combination, the process of precipitable decomposition and preservation in the wood is thus prevented for a great length of time. Whatever may be the ultimate theory certainly is most of fact

Lloyd. Witness
Wm. C. Hodges.
Samuel Ash

Charles Morgan