

# UNITED STATES PATENT OFFICE.

ARCHIBALD B. TRIPLER, OF NEW ORLEANS, LOUISIANA.

## IMPROVEMENT IN PRESERVING WOOD.

Specification forming part of Letters Patent No. 104,916, dated June 28, 1870.

*To all whom it may concern:*

Be it known that I, ARCHIBALD B. TRIPLER, of the city of New Orleans, parish of Orleans, in the State of Louisiana, have invented a new and useful Method for Preventing the Decay of Wood; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to carry out my invention.

My invention relates to preventing wood from decay; and it consists in cutting it into two or more equal parts or slabs, boring them at equal distances to receive tree-nails to unite them, and immersing said slabs in a solution of coal-tar and powdered charcoal, either hot or cold, in equal or unequal parts, which not only thoroughly impregnates the slabs with carbon, but coats the surface with an adhesive material, so that, when put together, their adjacent sides will adhere to each other, and form interior partitions or walls of antiseptic or preservative agents, extending from one end of each slab to the other, and then uniting these slabs by tree-nails or dowelpins, in such manner as to lock them as firmly and solidly as if they were of a single piece.

The timber thus prepared is immersed in a solution consisting of—

Asphaltum or mineral pitch, parts.....	80
Sulphur, parts.....	5
Arsenic, parts.....	5
Coal-tar, parts.....	5
Powdered charcoal, parts.....	5

Aggregate, parts..... 100

This solution will cover the surface, and fill up the joints and crevices between the slabs, rendering it impervious to water, and effectually preventing atmospheric decomposition by insulating it from the decaying influences of the elements.

The formation of ties, sills, &c., of separate slabs, bound together, and the intervention of walls of antiseptic agents between their adjacent sides, render dry-rot impossible by insulating one section of the tie or sill from the other, and serving as a barrier against the entrance of worms or insects.

In preparing railroad-ties, I prefer to cut each tie into four parts or slabs, according to

the thickness of the tie to be used, and they may be of equal or unequal thickness, and of parallel or tapering sides, as may be deemed best.

When cut, the slabs are fitted together and bored with a suitable number of holes at right angles to their antiseptic division-walls, so that if the slabs of the same tie or sill should become separated they will match indiscriminately with the slabs of other ties.

The cutting, boring, matching, and tree-nailing of the slabs of the tie or other article may be done with great facility, and the union of the slabs or parts of the tie or timber must be made before the solution which forms their intervening composition-walls becomes hard, in order to obtain the full benefit of the adhesion of one slab to the other, and imparts to it a much greater elasticity; and, in this respect, a tie made in sections is better adapted for railroads than ties made of a single solid piece, by giving to the train an elastic motion, and saving much wear and tear by lessening their jarring, which an unyielding tie produces.

I have described the slabs or sections of the tie as being separated by a wall of antiseptic composition, but it is obvious that the central one, or two or more inner slabs of the tie, may be perforated with perpendicular holes, which are filled with the antiseptic agents, and then secured together, and between the two outer slabs or sections, so that the inner sections will, in this case, become the antiseptic wall or division between the outside slabs. Neither do I confine myself to the compound herein described for coating and saturating the wood, but intend to use any other antiseptic agents which will answer the purpose.

The tree-nails by which the sections or slabs of the tie are secured together must also be soaked in the antiseptic composition.

The systems heretofore adopted for preserving wood, such as ties for railroads, sills, &c., from decay, have required a long time in order to impregnate their interior; but, by reducing the tie or other article to comparatively thin slabs, it is obvious that their thorough saturation with the antiseptic agents may be accomplished in a very short time. Moreover, it is well known that the uniting

of several strips or slabs of wood firmly possesses more strength than that of a single piece.

Having described my invention, I claim—

1. Ties, bed-sills, or other articles to be preserved from decay, made in sections or slabs, and secured together, substantially as herein described.

2. In a tie or bed-sill made in sections or slabs, the intervention of partitions or division-walls of antiseptic or preservative agents

between their adjacent sides, substantially as herein described.

3. The method herein described of preserving timber from decay.

In testimony whereof I have hereunto signed my name.

A. B. TRIPLER.

Witnesses:

T. H. UPPERMAN,

A. E. H. JOHNSON.