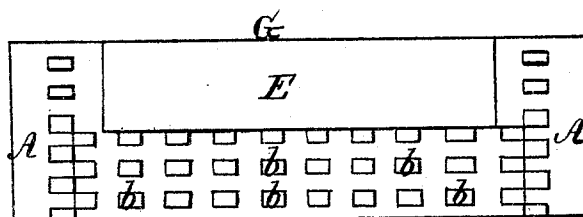


V. W. Blanchard.

Mode of Preserving Wood.

N^o 94704. Patented Sept. 14. 1869.



Witnesses;
E. Alexander
Smith

Inventor;
V. W. Blanchard
per J. H. Alexander Atty

UNITED STATES PATENT OFFICE.

VIRGIL W. BLANCHARD, OF BRIDPORT, VERMONT.

IMPROVED MODE OF PRESERVING WOOD.

Specification forming part of Letters Patent No. 94,704, dated September 14, 1869.

To all whom it may concern:

Be it known that I, VIRGIL W. BLANCHARD, of the town of Bridport, in the county of Addison and State of Vermont, have invented certain new and useful Improvements in the Mode of Incorporating Coal-Tar and Stone into the Surface of Wood; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification, and in which—

The figure represents a plan view of my invention.

The object of my invention is to incorporate coal-tar or wood-tar and stone or any suitable granular or mineral substance into the surface of wood, so as to form a water-proof petrous coating within as well as upon the surface to which it is applied. By allowing the coating to enter the surface to which it is applied it becomes entangled with the fiber of such surface, and is thereby prevented from scaling or flaking off, which effect might otherwise take place. Such coating applied in the manner described to the surface of wood makes it impervious to water and hardens it to any degree as to make it useful. When used for sidewalks, or in any situation where it is exposed to much friction or wear, by using thin sheets of wood "veneers" treated in this manner a roofing material is produced which is fire-proof and capable of resisting the action of the elements for a great length of time.

To enable others skilled in the art to which my invention appertains to make and use the same, I will now describe the material used.

In the accompanying drawings, A represents a strip of wood with its surface punctured with a series of small holes, *b*. These holes may be of a greater or less size, and of a greater or less depth, according to the thickness of the material treated and the depth to which it is desirable to have the coating penetrate the surface of the material.

Let C represent a sample of coal-tar. Let D represent a sample of sand, &c. Let E represent the upper surface of the coating applied to the central portion of the surface of the strip of wood A. Let F represent a side view of the strip A, the coating penetrating beneath its surface, as shown at G.

In the puncture of the holes in the surface of the material treated, it will be seen that

one row of holes is not punctured in the grain-line (by "grain-line" I mean the grain or fiber of the wood) immediately before or behind the row of holes before it or the row behind it, but in an interval between such holes. By this means surface punctured retains a considerable portion of its original strength and firmness, which would not be the case if one row of holes was punctured in the grain-line of the wood immediately before or behind its antecedent or successor.

The surface of the material treated may be rapidly and cheaply punctured or perforated by passing it beneath a roller provided with teeth suitably arranged. The coal-tar may be spread and forced into the perforations in the surface of the material treated by a roller properly adjusted or by manual labor.

The sand, pulverized stone, clay, or any mineral substance that may be used may be forced into the perforated or punctured surface of the material treated, so as to form an intimate union with the fiber of the wood and the coal-tar by means of a roller suitably adjusted, or by any other means by which the necessary pressure may be applied.

I would be understood to claim not only the use of sand, but of any kind of pulverized stone, clay, or suitable mineral or granular substance used in combination with coal-tar in the manner set forth. The coal-tar may be applied separately or mixed with the sand, pulverized stone, or any suitable mineral substance.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The perforations of the wood, for the purpose set forth.
2. The incorporation of coal-tar and pulverized stone or any suitable granular or mineral substance into and beneath the surface of the wood, substantially as and for the purpose set forth.
3. The arrangement of the series of holes punctured in the surface of the wood, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

VIRGIL W. BLANCHARD.

Witnesses:

N. S. BENNETT,
D. H. BENNETT.