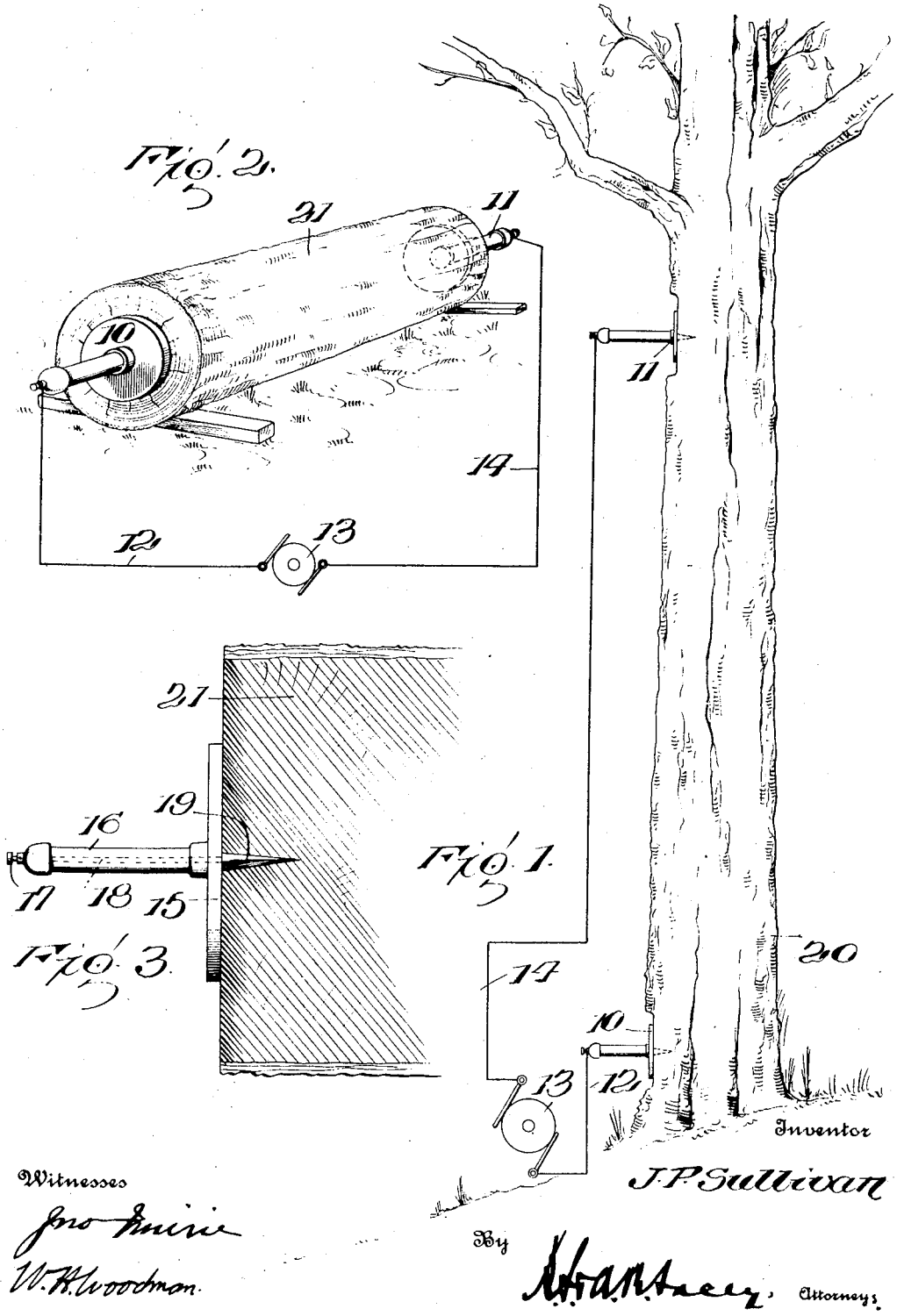
J. P. SULLIVAN.

COMPOUND FOR TREATING LUMBER.

APPLICATION FILED OCT. 28, 1914.

1,146,212. Patented July 13, 1915.



Witnesses

Jno. Ennis

W. R. Woodman.

Inventor

J. P. Sullivan

By H. A. Stacey, Attorneys.

UNITED STATES PATENT OFFICE.

JOHN P. SULLIVAN, OF MEMPHIS, TENNESSEE, ASSIGNOR OF ONE-FIFTH TO E. E. BOOKMILLER, OF MEMPHIS, TENNESSEE.

COMPOUND FOR TREATING LUMBER.

1,146,212. Specification of Letters Patent. Patented July 13, 1915.

Application filed October 28, 1914. Serial No. 869,137.

To all whom it may concern:

Be it known that I, JOHN P. SULLIVAN, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented certain new and useful Improvements in Compounds for Treating Lumber, of which the following is a specification.

My present invention relates to a method of electrically treating lumber and to a compound for use in carrying out the method, this invention being in fact an improvement over the invention disclosed in my copending application, filed June 28, 1913, Serial No. 776,380.

More specifically, the primary object of my present invention consists in the provision of a liquid compound which may be applied to those surfaces of the lumber between which the current is to be passed to insure a better electrical contact between the electrodes employed and the lumber and consequently a more uniform passage of current between the electrodes.

Broadly speaking, as disclosed in my copending application, above referred to, my method of treating lumber consists in passing an electric current of suitable strength through the wood to be treated, preferably passing the current lengthwise of the grain. To insure the proper passage of the current through the wood, those surfaces of the wood against which the electrodes are positioned are previously coated with a liquid compound, which will be later described. The current passing through the wood acts upon the sap and other matter contained therein, the action being largely electrolytic, to break down the sap and thus prevent staining, decaying, checking or honycombing of the wood. The current also, because of this breaking down of the sap, greatly assists the drying or seasoning of the lumber or timber treated.

More specifically, my invention will be described in connection with the drawing and then pointed out in the claims which are attached to and form a part of this application.

In the drawing:—Figure 1 is a view, partially diagrammatic, illustrating my method of treating standing timber; Fig. 2 is a perspective view, partially diagrammatic, illustrating my method of treating logs, or sawed timber; Fig. 3 is a fragmentary longitudinal sectional view of a piece of timber, showing the manner of applying one of the electrodes employed in passing the current through the wood.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

In the drawing I have illustrated one method of passing the current through the lumber, which consists in applying electrodes 10 and 11 against the lumber to be treated, a wire 12 connecting the electrode 10 with one pole of a dynamo 13, while a wire 14 connects the electrode 11 with the opposite pole of the dynamo.

Any suitable form of electrode may be employed, although the electrode preferably includes, in its construction, a metallic plate or body portion 15. The electrodes illustrated in the present drawing include such a body provided with a handle 16 of insulative material extending from one face of the body and provided with a binding post 17 for connection with one or the other of the line wires. A conductor, generally in the form of a wire 18, extends through the handle 16 and is electrically connected to the plate 15. This plate 15 also carries a pointed prong or spike 19 which may be driven into the timber being treated to hold the electrode in place and to insure a firm engagement of its body portion against the lumber.

In Fig. 1 I have illustrated the method of treating standing timber. In this instance, a portion of the bark is blazed or cut away from the tree 20 being treated near its base and another portion of the bark cut away near the top of the tree, leaving that portion of the lumber to be treated between such blazed surfaces. One of the electrodes is then applied against each of the blazed portions and the current passed from one to the other through the tree. When treating logs or sawed timber, the electrodes are generally positioned directly against the ends of the timber being treated, as shown in Fig. 2, in which a log 21 is interposed between the electrodes 10 and 11.

In order to insure a close contact between the electrode and the lumber being treated and in order to assist in the passage of the current through the lumber, I preferably

employ a liquid compound with which I coat the surfaces of the wood against which the electrodes are to be applied. This compound consists of seventy-five pounds of common salt, five pounds of bluestone, five pounds of alum, five pounds of indigo blue and water to make up, in all, fifty gallons.

The dynamo should be capable of generating a direct current of as much as 110 volts and from 30 to 40 amperes.

Soft woods, treated in the above described method, with the aid of my improved compound, will dry in less than a month to as great an extent as they would ordinarily dry in six months natural seasoning and hard woods will require but little longer. The breaking down of the sap, resins and the like contained in the lumber not only cause this drying or seasoning of the lumber, but also protect it from bugs, insects and worms as the acids and other ingredients of the sap, which ordinarily attract them, are broken down.

Having thus described the invention, what is claimed as new is:

1. A compound for coating the electrode engaging surfaces of timber to be electrically treated, consisting of salt, bluestone, alum, indigo blue and water.

2. A compound for coating the electrode engaging surfaces of timber to be electrically treated, consisting of salt seventy-five pounds, bluestone five pounds, alum five pounds, indigo blue five pounds and water to make up fifty gallons.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN P. SULLIVAN. [L. S.]

Witnesses:
E. E. BOOKMILLER,
H. S. BOOKMILLER.