

No. 891,041.

PATENTED JUNE 16, 1908.

E. COVINGTON.
RAILROAD TIE.

APPLICATION FILED OCT. 22, 1907.

Fig. 1

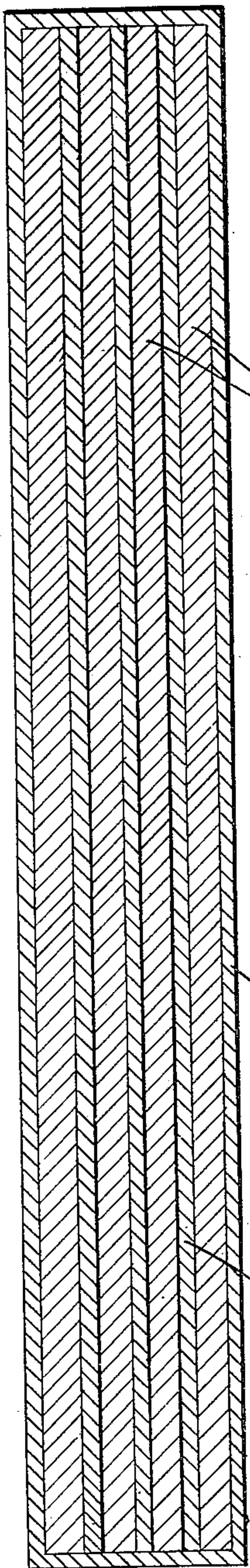
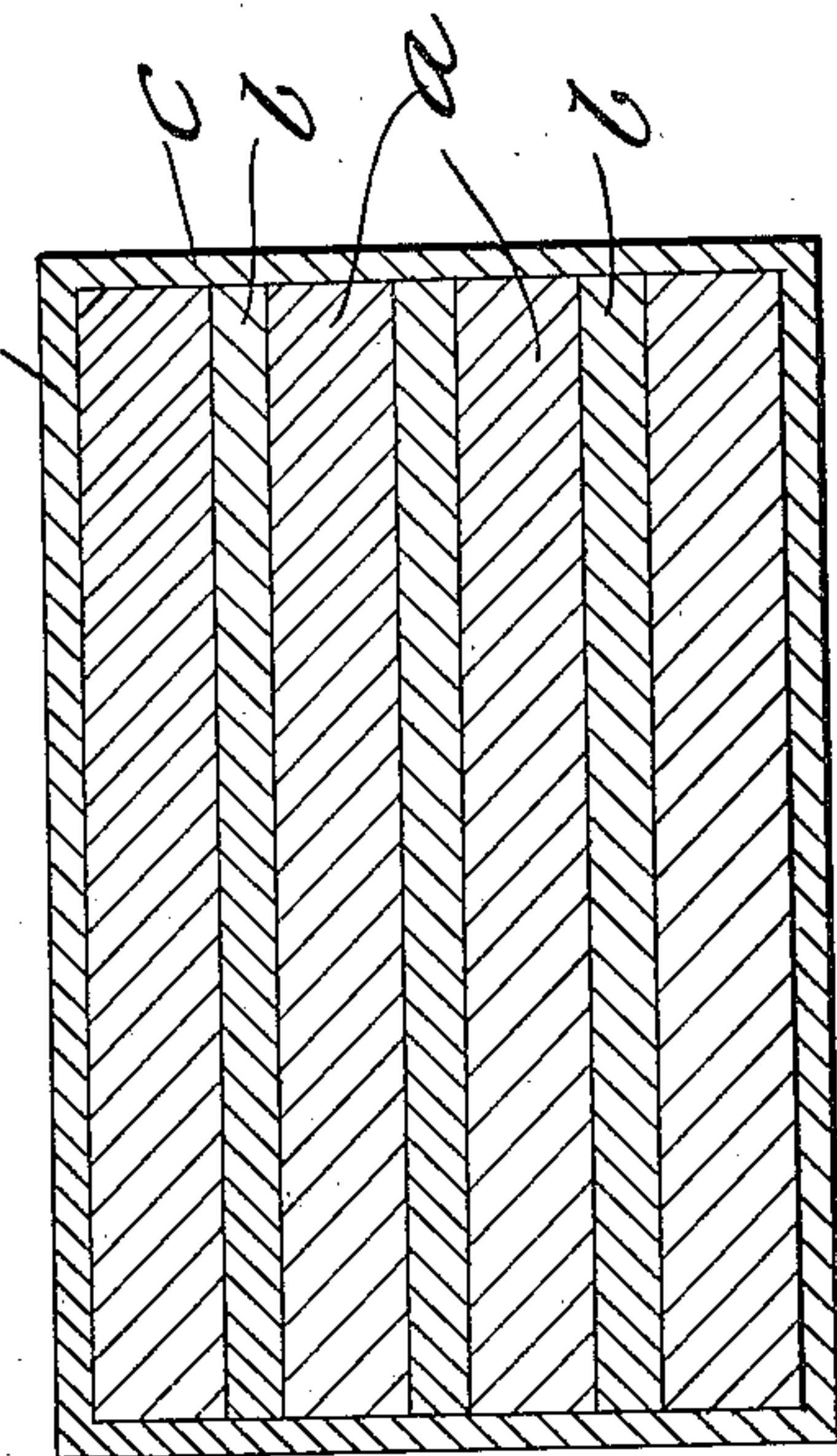


Fig. 2.



Witnesses

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EDWARD COVINGTON, OF SALT LAKE CITY, UTAH.

RAILROAD-TIE.

No. 891,041.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD COVINGTON, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented new and useful Improvements in Railroad-Ties, of which the following is a specification.

This invention relates to railroad ties, and more particularly to a composition tie with which corn stalks or the like are mainly used and bound together with a suitable waterproof cement or binding, the stalks being arranged in layers and interspersed with a binding of corn stalk pulp, coal tar, slack lime, and creosote or gilsonite, elaterite or the like, and the whole tie coated or incased in such composition and subjected to great hydraulic pressure while confined in a suitable mold.

The invention has for its objects to produce a tie which favorably compares with a wooden tie as regards its elasticity and which is practically water or weather proof, firmly holds a spike, and which does not split and possesses the further desirable feature of being of comparatively long life, and of being cheaply made, since the main material thereof is practically available in all localities.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features which will be hereinafter more fully described and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one of the embodiments of the invention, Figure 1 is a longitudinal section of a tie. Fig. 2 is a transverse section thereof drawn on an enlarged scale.

The ties are made in molds and subjected to hydraulic pressure so as to thoroughly press the material together. The tie is made up largely of corn stalks or corn, previously impregnated with a suitable preservative, arranged in layers designated by *a* with the stalks extending longitudinally of the tie,

and between adjacent layers is a composition *b* which preferably consists of stalks reduced to a pulp and mixed with suitable quantities of coal tar, slack lime, and creosote or gilsonite, elaterite or the like, the said composition serving as a cement or binder and at the same time giving to the tie water and weatherproof qualities. After the required number of layers has been produced, a coating *c* of the same composition is applied to the mass so as to form a protective casing, and after this coating has been applied, the tie is compressed in the mold under hydraulic pressure so that the stalks will be tightly bound together to give the tie permanent form. After the tie is compressed, it is removed from the mold and is ready for use. A tie constructed in this manner possesses considerable elasticity and takes a firm hold on the spikes, and by reason of the waterproof composition employed as a casing, the tie is of long life and does not readily decay. The tie can be cheaply made as compared with steel or concrete ties and is of desirable weight.

Having thus described the invention, what I claim is:—

1. A tie composed of layers of stalks, a binding between the layers consisting of vegetable pulp, coal tar, slack lime, creosote or the like, and a coating of the same material as the binding for excluding moisture from the tie.

2. A tie consisting of layers of stalks impregnated with a suitable preservative, intermediate layers of a binding and waterproof compound compressed together with the stalks, and a coating of a waterproof compound entirely surrounding the mass and compressed therewith for forming a moisture-proof casing.

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

EDWARD COVINGTON.

Witnesses:

FISHER HARRIS,
J. C. ROYLE, Jr.