

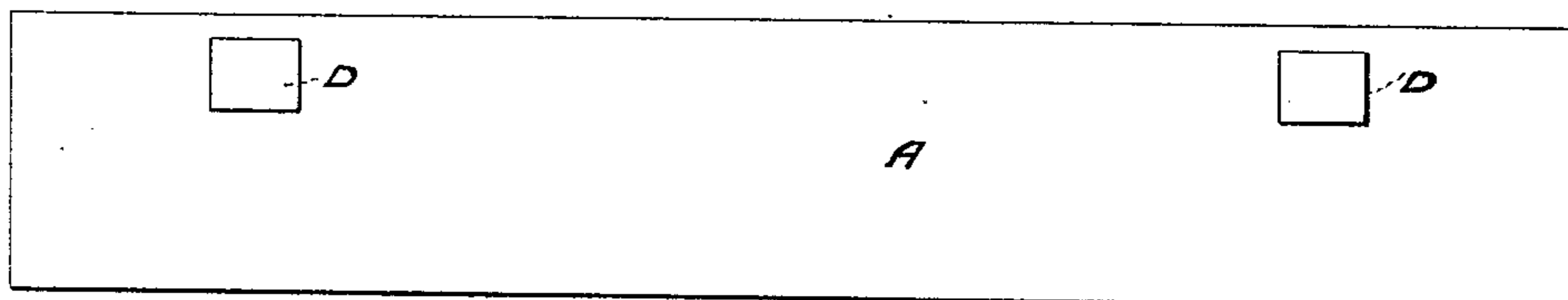
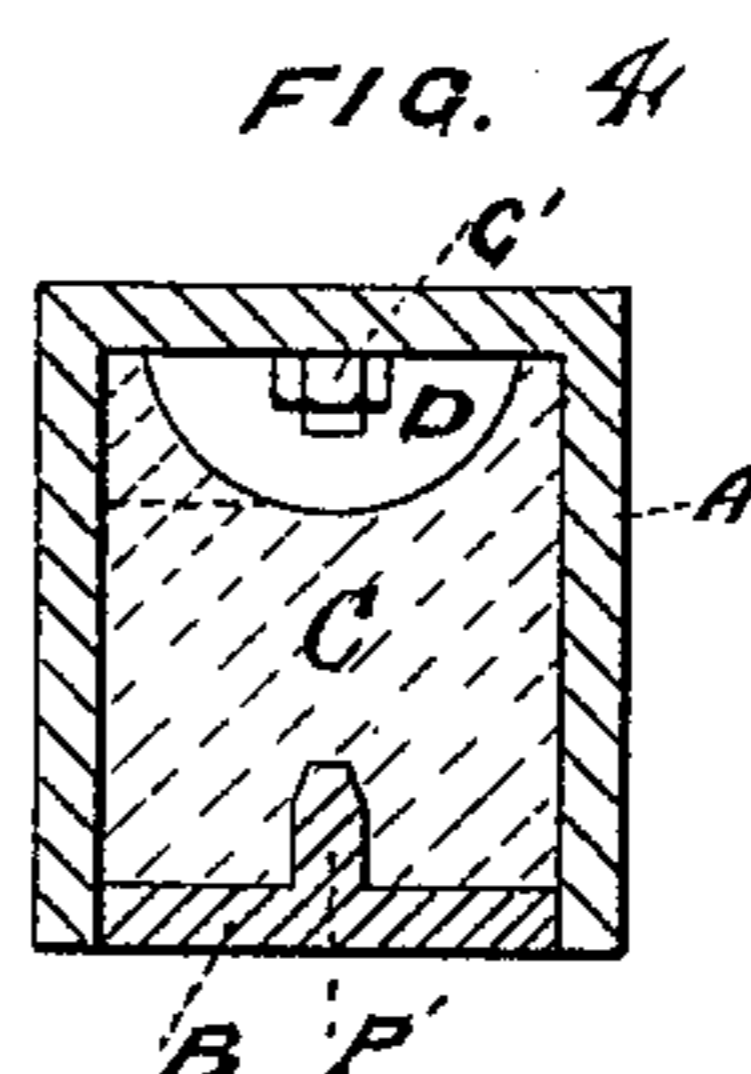
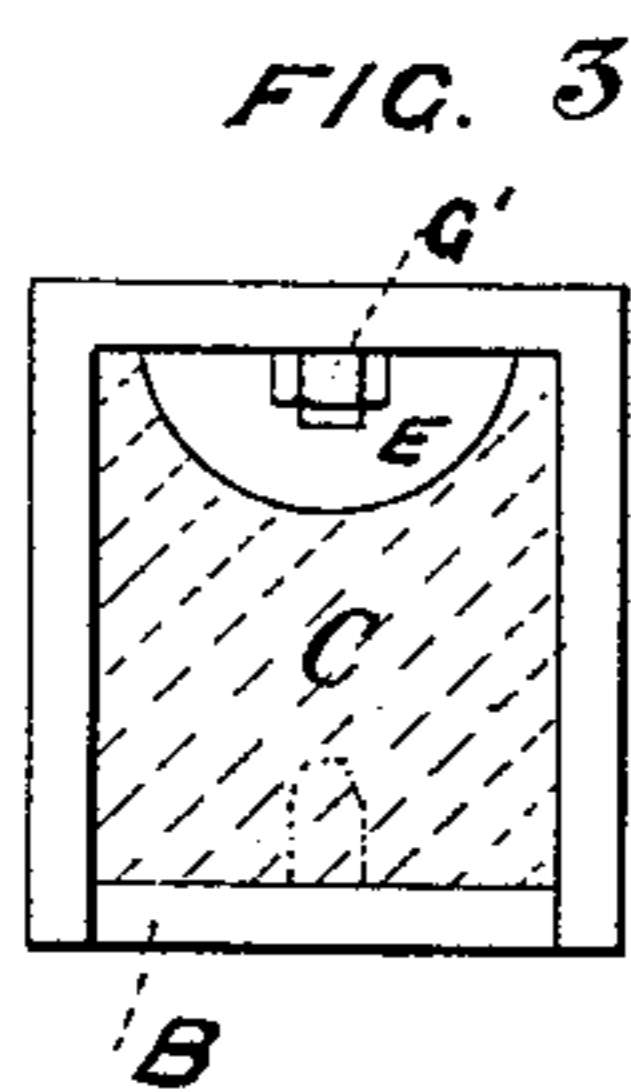
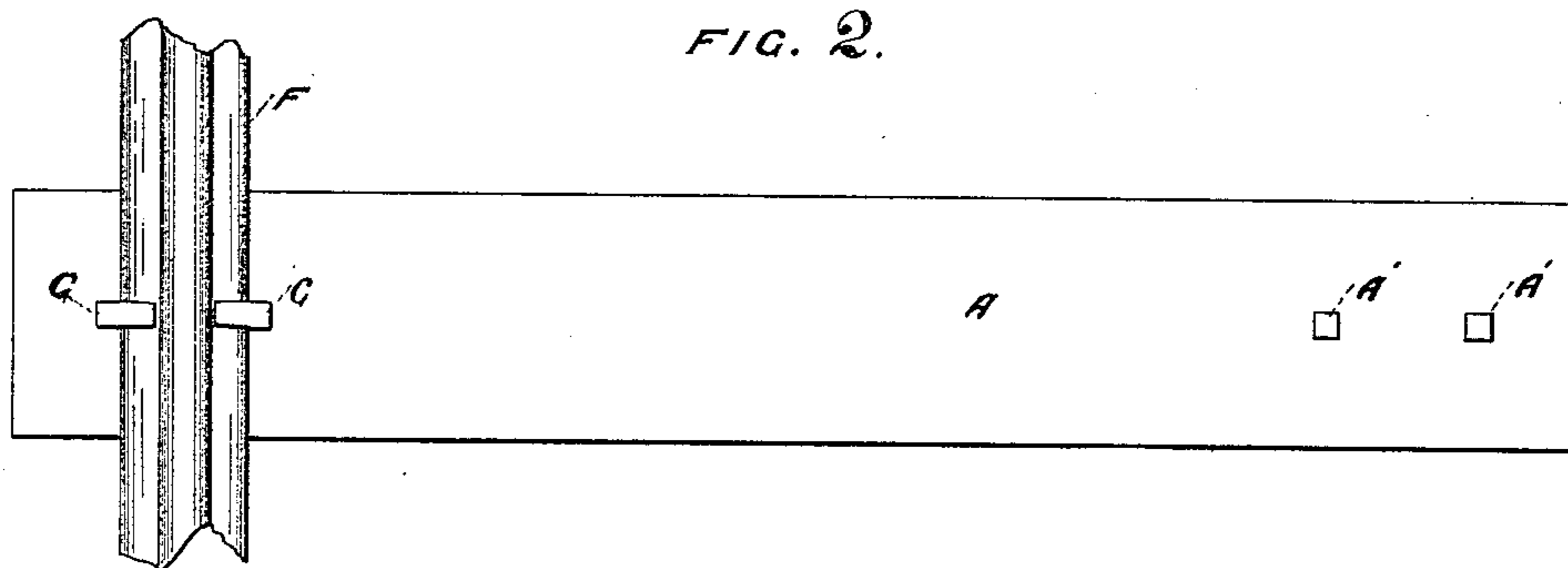
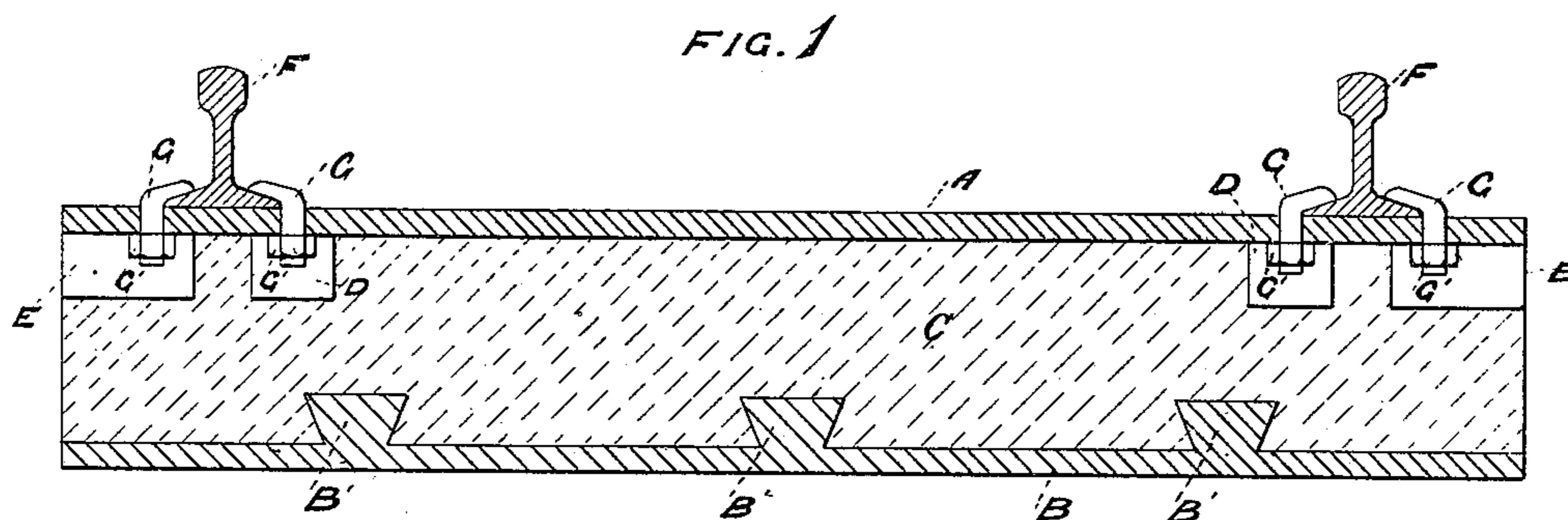
(No Model.)

G. KELTON.

RAILWAY TIE.

No. 377,162.

Patented Jan. 31. 1888.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE KELTON, OF NEAR KIOWA, COLORADO.

RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 377,162, dated January 31, 1888.

Application filed November 28, 1887. Serial No. 256,322. (No model.)

To all whom it may concern:

Be it known that I, GEORGE KELTON, a citizen of the United States, residing near Kiowa, in the county of Elbert and State of Colorado, have invented certain new and useful Improvements in Railway-Ties, of which the following is a specification, reference being had therein to the accompanying drawings, in which similar letters refer to corresponding parts.

My invention relates to railway-ties; and the object of my improvements is to provide a cheap, durable, and easily-constructed railway-tie, of which the outside part or covering shall be made of metal and the inside composed of pulp.

In the drawings, Figure 1 is a sectional view of my improved railroad-tie, showing, also, a sectional end view of the rails and the manner of attaching the same to the tie. Fig. 2 is a top view of my improved railway-tie, showing a rail broken off and attached to one end of the same. Fig. 3 is an end view of the tie, and Fig. 4 is a sectional end view of the same. Fig. 5 is a view of one side of the tie.

In the drawings, A represents the top and sides of the metallic outside part or casing of the tie, and B the metallic bottom of the same, provided with the lugs B' for holding the filling in its place.

C is the pulp with which the tie is filled.

D are the openings made in the side of the metallic casing, as shown in Fig. 5, and extend through the pulp C, as shown in Fig. 1. Openings D, together with the openings E, left in the pulp at each end of the tie, are for access to the nuts G', so that spikes G may be attached and detached whenever desired. The top of casing A is also provided with holes A', so that the rails F may be attached to the tie by means of the said spikes G being inserted through said holes A' and attached to the tie by means of nuts G'.

In the construction of my improved railway-tie the top and sides of the same are made of one piece of any desired sheet metal, preferably wrought-iron or steel. The sheet metal may also be of any desired thickness. Bottom plate, B, is also made of the same material and

of the same thickness as the top and sides of the tie. To bottom B are attached the lugs B', in any suitable manner. Square holes A' are made in the top of the metallic casing A, of the proper size and distance apart for attaching the spikes to the same. Into the metallic casing A of the tie is pressed straw pulp, or any other desired pulp, with sufficient pressure to make the same a solid compact mass and of sufficient solidity to strengthen the tie. Bottom B is then pressed into its proper position, as shown in Figs. 3 and 4, when the lugs B' are pressed into the pulp, retaining the bottom in its place.

The holes D and E may be either cut out of the pulp after the same is pressed into the tie or made by inserting blocks or any suitable pieces of material into the holes D of the casing and in the ends of the casing, allowing the pulp to form around the same, after which the blocks may be removed.

The object of pulp C is to strengthen the tie, so that sheet metal of less thickness may be used when filled with the pulp than if the tie were made of sheet metal only.

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

1. In a railway-tie, metallic casing A, filled with pulp C and provided with bottom B, said bottom being provided with lugs B', for the purpose set forth and described.

2. In a railway-tie, metallic casing A, provided with holes A' and D and filled with pulp C, in combination with metallic bottom B, provided with lugs B', for the purpose set forth and described.

3. In a railway-tie, the combination, with metallic casing A, provided with holes A', of metallic bottom B, provided with lugs B', and spikes G, provided with nuts G' for attaching said spikes to the tie, said tie being filled with pulp C and provided with openings D and E, for the purpose set forth and described.

GEORGE KELTON.

In presence of—

ISHAM R. HOWZE,
JAMES A. HOWZE.