

W. B. WESTBROOK.
METALLIC CORE FOR RAILWAY TIES.
APPLICATION FILED NOV. 20, 1907.

899,089.

Patented Sept. 22, 1908.

Fig. 1.

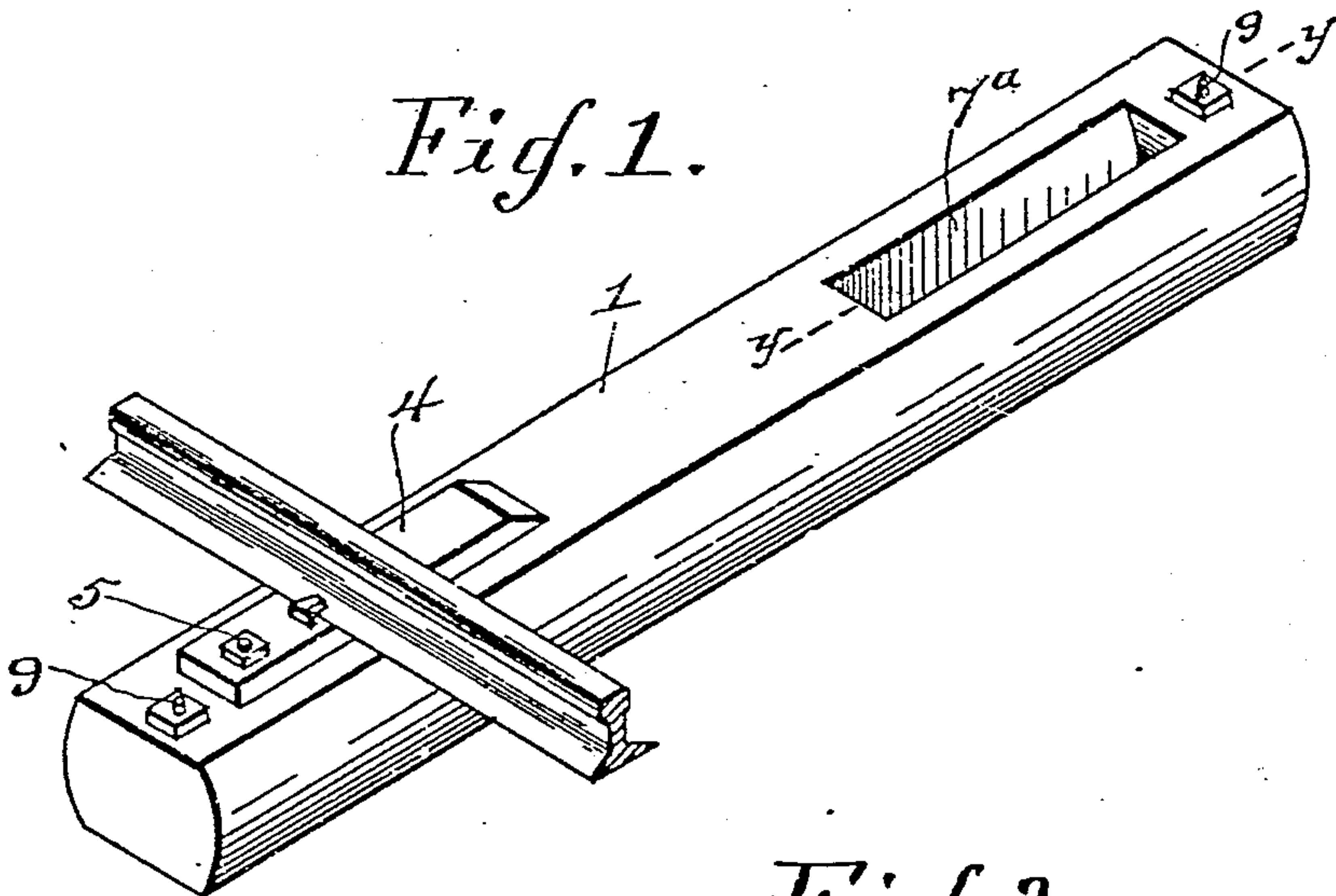


Fig. 2.

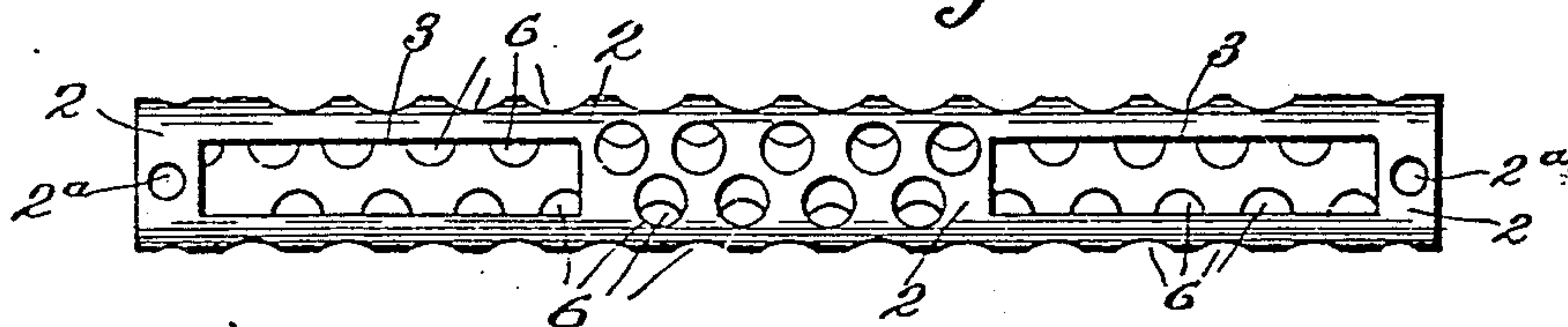


Fig. 4.

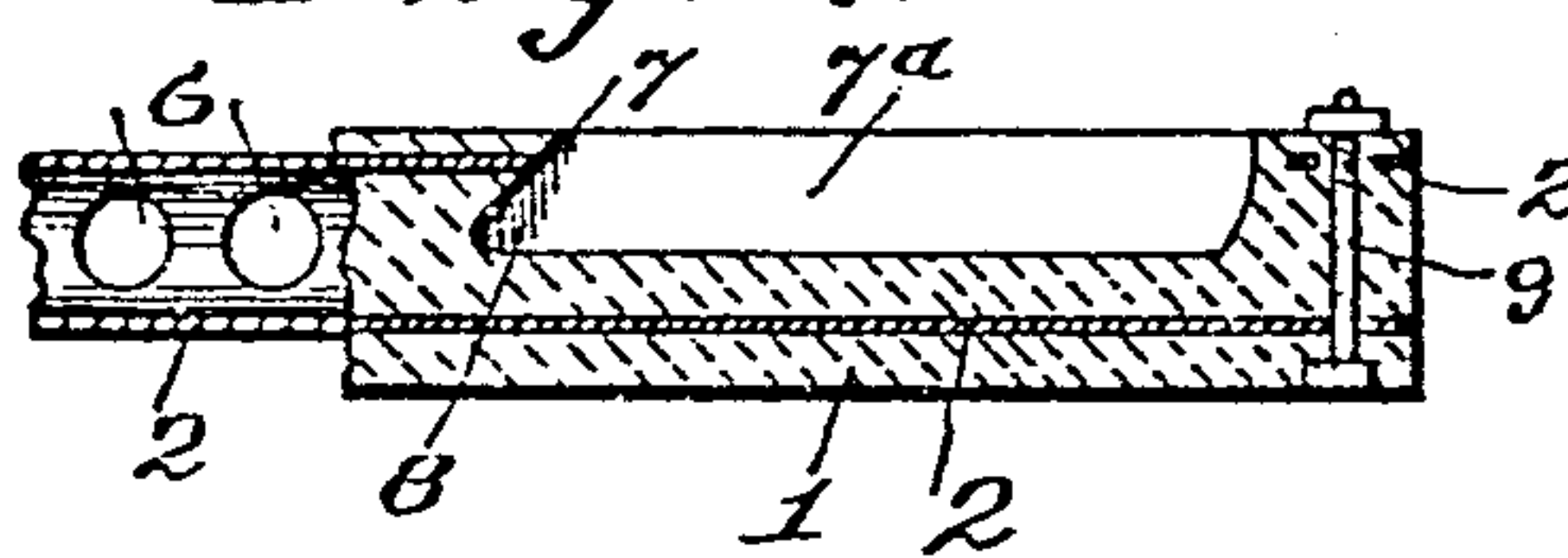
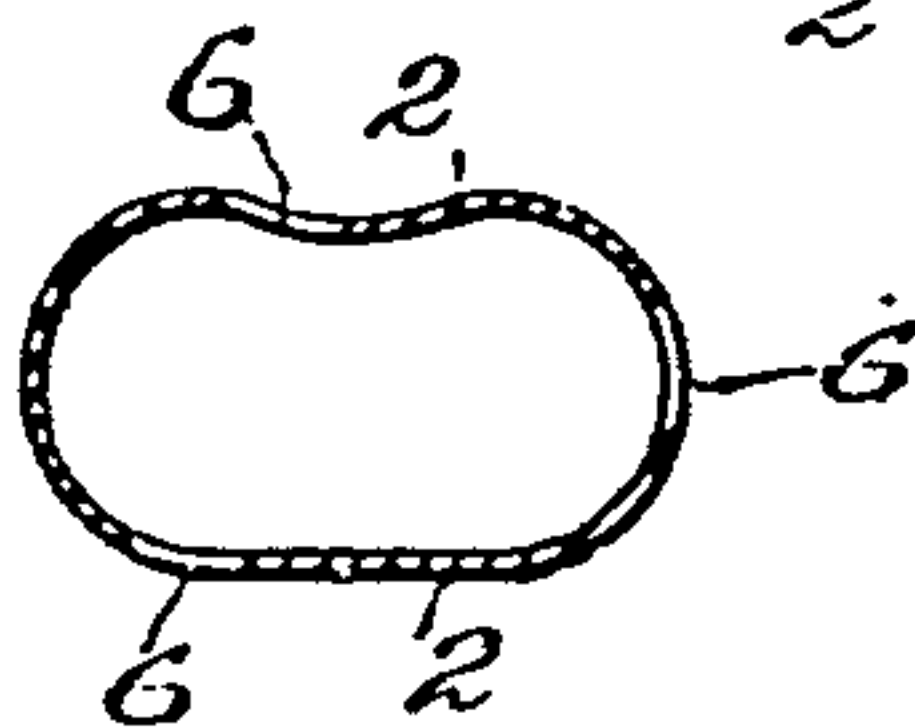


Fig. 3.



Witnesses:
C. J. Bell
Wm. E. Volk Jr.

Inventor:
William B. Westbrook.
By W. H. Wills
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM B. WESTBROOK, OF CLIFF, KENTUCKY.

METALLIC CORE FOR RAILWAY-TIES.

No. 899,089.

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed November 20, 1907. Serial No. 403,021.

To all whom it may concern:

Be it known that I, WILLIAM B. WESTBROOK, a citizen of the United States, residing at Cliff, in the county of Floyd and State of Kentucky, have invented certain new and useful Improvements in Metallic Cores for Railway-Ties, of which the following is a specification.

This invention relates to railway ties, and pertains especially to the class of such ties composed of concrete, cement or other suitable material having a metal core.

The object of the invention is to provide in concrete cross-ties, and especially bridge and switch ties, a metal core of such novel and peculiar construction as to permit passage therethrough of concrete or other suitable plastic material and to bind the same, and to leave sufficient metal to brace and hold such material within and without the core.

A further object of the invention is to provide a metal core for railway cross-ties having a pair of slots or openings for suitable rail-blocks or chairs, and provided throughout with a series of perforations or apertures.

Other objects, advantages and improved results are obtainable by means of the special shape and construction of the core as will be hereinafter fully described and pointed out in the claims to follow:

In the accompanying drawings forming part of this application:—Figure 1 is a perspective view of a tie embodying the invention. Fig. 2 is a top view of the core. Fig. 3 is an enlarged cross section of the core. Fig. 4 is a longitudinal section on the line *y-y*, Fig. 1.

The same reference numerals denote the same parts throughout the several views of the drawings.

The tie 1 is composed of concrete, cement or other suitable material adapted to be carried within and without a core 2.

The metal core 2 is preferably concaved at the top and its sides are convexed so as to present a tubular shaped core. Two slots or openings 3 are made through the top of

the core for the insertion of rail-blocks 4, and each end of the core has a hole 2^a through the bottom and top for a suitable bolt 5. A series of perforations 6 is made throughout the sides, bottom and between the slots 3 in the top of the core. These perforations alternate so as to leave sufficient metal between them for maintaining proper stiffness and strength in the core.

At the inner end of the slots 3 and under an over-hanging lip 7, at the inner end of an opening 7^a, a cavity 8 is formed in the concrete for the wedge-shaped end of the blocks 4, and a tie-bolt 9 extends through the other end of the blocks to hold them in the tie.

It is obvious that the perforations form a passage for the concrete in applying the latter to the core; that the side perforations hold the concrete in a solid body within and without the core; and that by reason of such perforations an unusual solid body of concrete is maintained throughout the core.

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

1. A core for concrete railway ties, comprising tubular shaped metal having rail-block slots, and a series of perforations throughout its sides, bottom, and top between said slots.

2. A core for concrete railway ties, composed of metal shaped to form a tube having concaved top and convexed sides, said top having alternating perforations, and said sides having perforations, and a bottom having alternating perforations.

3. A tubular core for concrete railway ties having portions of its top removed to form rail-block slots or openings, and a series of alternating perforations between the slots, perforated sides, and a series of alternating perforations in the bottom of the core.

In witness whereof I hereunto set my hand in the presence of two witnesses.

WILLIAM B. WESTBROOK.

Witnesses:

HELEN L. VALK,
LOTTIE A. WATERS.