

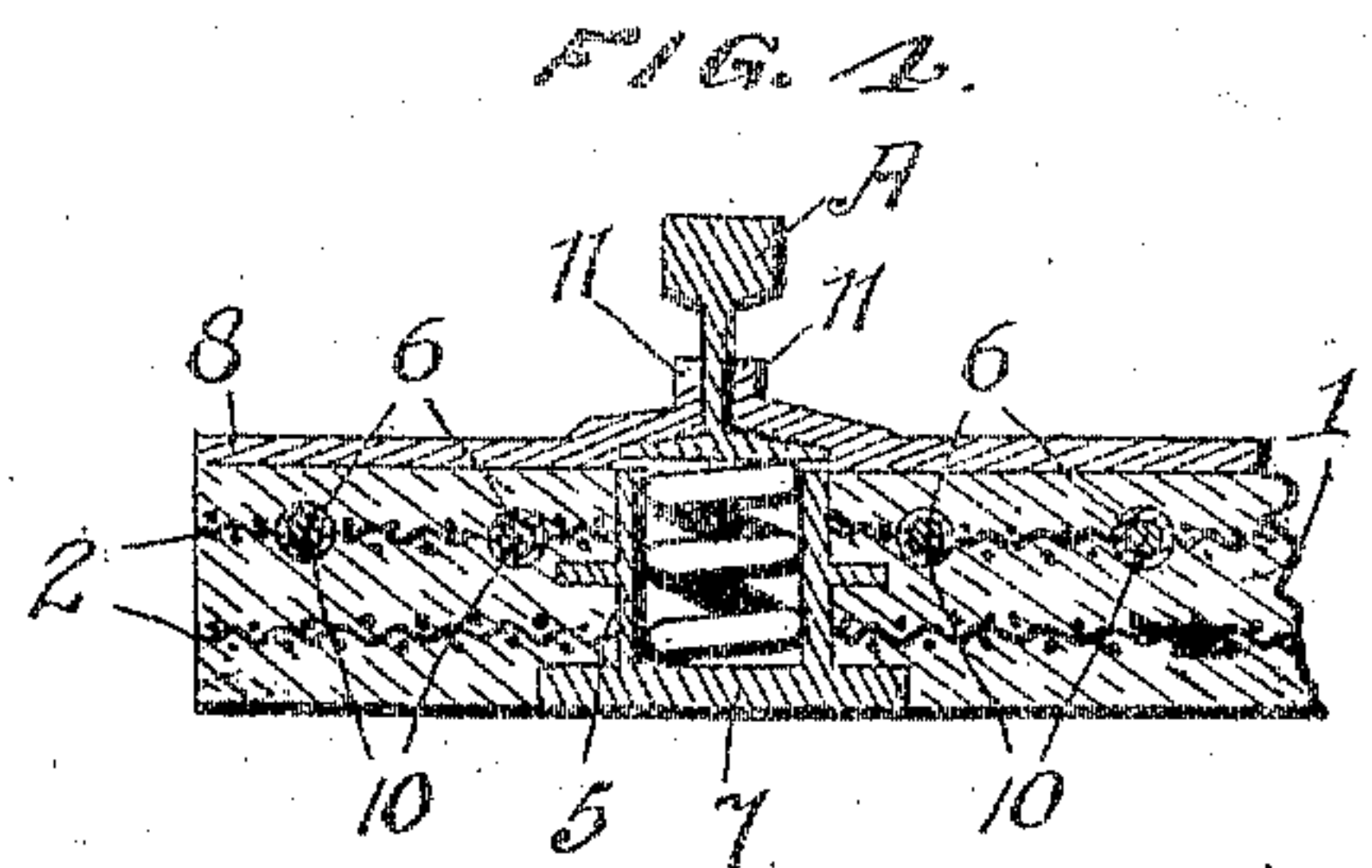
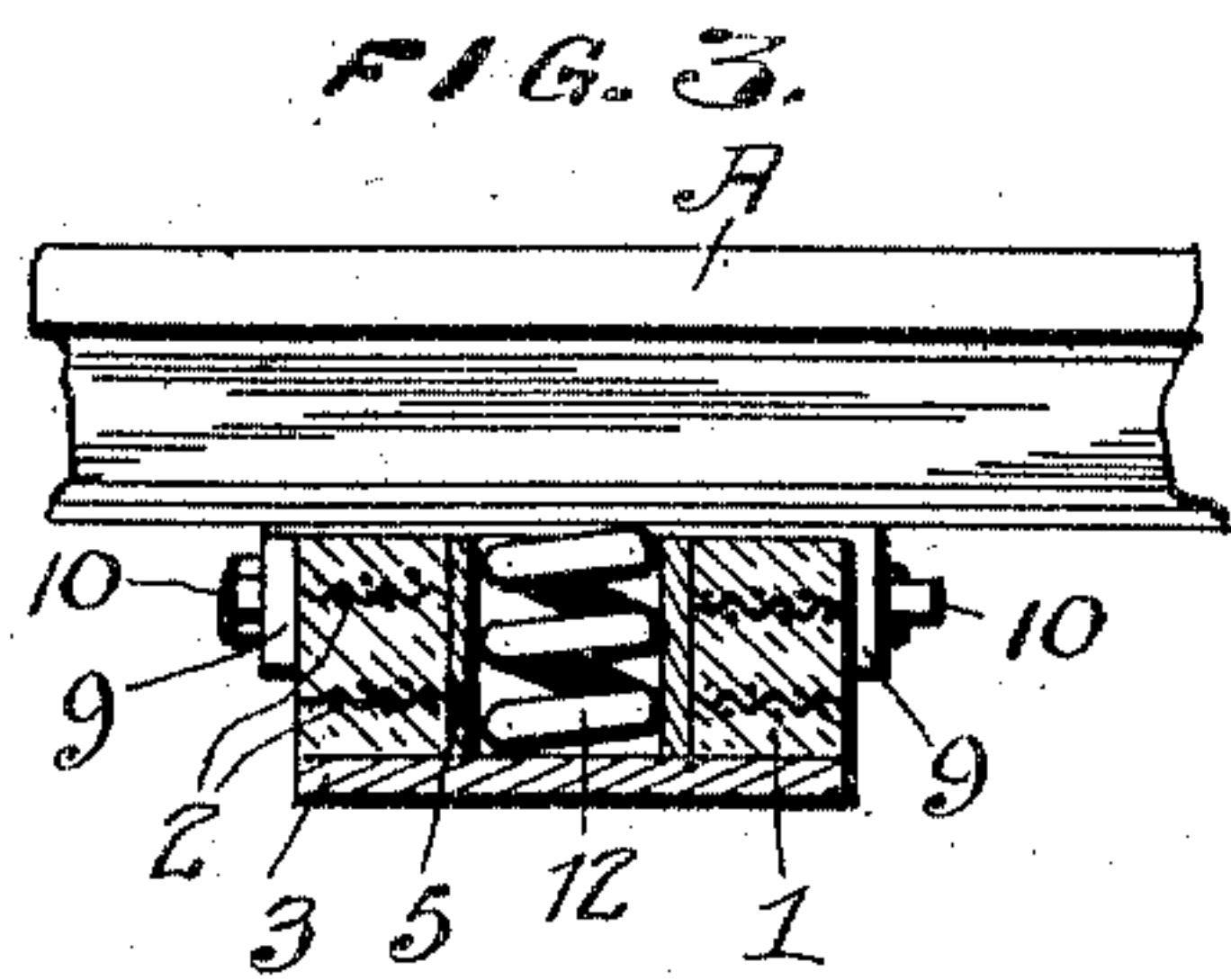
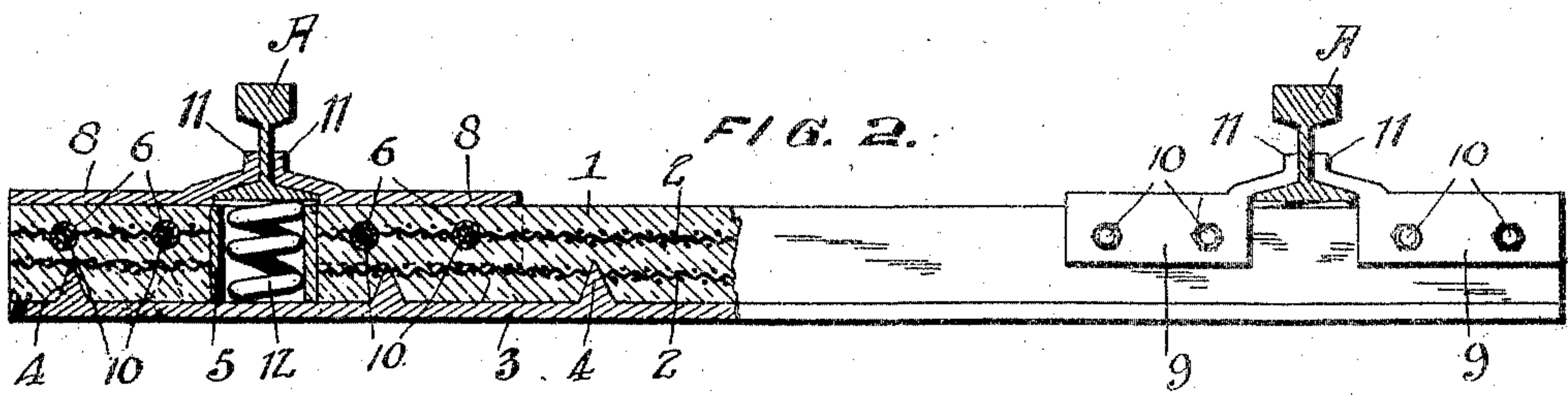
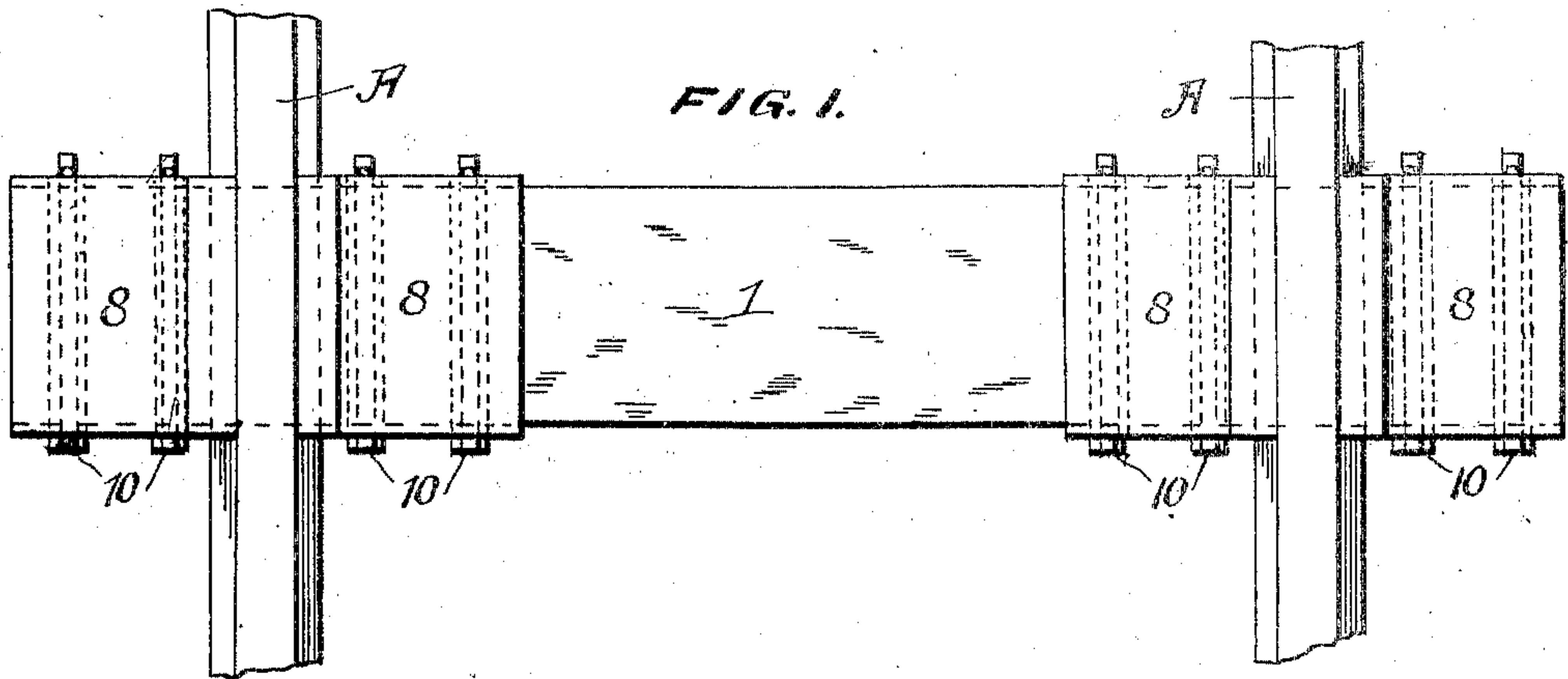
D. STEVENS.

RAILWAY TIE.

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928,480.

Patented July 26, 1909.



WITNESSES

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RAILWAY-TIE.

No. 928,480.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DAVID STEVENS, citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Railway-Ties, of which the following is a specification.

My invention relates to railway ties, and more particularly to a tie constructed of molded cement or concrete, and metal, and the object thereof is to provide a simple and inexpensive construction embodying novel holding elements and supports for the rails.

In the accompanying drawings, illustrating my invention, and forming a part of this specification, and in which like characters are used to designate like parts throughout the several figures, Figure 1 is a top plan view of a railway tie constructed in accordance with my invention, and illustrating the rails in connection therewith. Fig. 2 is an elevation of the same, partly in section. Fig. 3 is a transverse sectional view taken therethrough, and, Fig. 4 is a longitudinal sectional view taken through one end of a tie embodying a slightly modified form of my invention.

In the embodiment of my invention, herein shown, I provide a rectangular tie, the body portion of which is composed of molded cement or concrete, provided with suitable reinforcing elements 2, therein, which may be of wire as shown, or other suitable reinforcing agents.

As illustrated in the form shown in Figs. 1 to 3 inclusive, my invention contemplates the provision of the concrete or cement body 1, with a metallic base plate 3 having upwardly extending prongs 4 embedded in the material of said body portion. In this form of my invention, the body 1 is molded about vertical tubular casings 5, located adjacent each end thereof, and extending transversely therethrough, which casings rest upon the base plate 3. In the form of my invention shown in Fig. 4, however, the base plate 3 is dispensed with, and each of the casings 5 is provided with a relatively small base plate 7, forming an integral part thereof, and embedded in the material of the body 1.

The body 1, is, according to both forms of my invention, also molded about relatively

small tubes 6, extending transversely there-through, at right angles to, and upon each side of the casings 5. Arranged upon the body 1, adjacent each end thereof, and having their ends disposed angularly and flanged in opposing relation, are plates 8, having downwardly extending side flanges 9, by which they may be connected to said body 1 by bolts 10, extending through the embedded tubes 6 thereof. Rails A are disposed with their faces extending beneath the adjacent angular ends of the plates 8, with the webs thereof disposed between the flanged extremities 11, of said plates, whereby the rails are held against sidewise movement, while slight vertical movement thereof is permitted. The faces of the rails A rest directly upon helical springs 12, disposed within the tubular casings 5, before described.

By the foregoing construction, I am enabled to provide a strong and durable railway tie, having means to rigidly support the rails against sidewise movement, to prevent the spreading thereof, and means to elastically support the same in a vertical direction against the weight of the rolling stock.

Having fully described my invention, I claim:

1. A rail tie comprising a molded concrete body, formed with transverse openings adjacent its ends, and with openings extending at right angles to said first named openings, reinforcing means extending longitudinally through said body, tubular spring casings mounted in said first named openings, springs mounted within said casings to flexibly support the rail, and plates mounted upon opposite sides of the rail, and provided with depending side flanges secured to each other by bolts passing through said last named openings, substantially as described.

2. A rail tie comprising a molded concrete body, formed with transverse openings adjacent its ends, and with openings extending at right angles to said first named openings, reinforcing elements extending longitudinally through said body, tubular spring casings mounted in said first named openings, springs mounted in said casings, to flexibly support the rails, plates mounted upon said body at opposite sides of the rail,

and provided with depending side flanges secured to each other by bolts passing through said last named openings, and a relatively flat plate extending in its entirety upon the
5 base of said body, and provided with projecting prongs, embedded into the material thereof, substantially as described.

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

DAVID STEVENS.

Witnesses:

HARRY A. SHAW,
GIDEON R. WOLFE.