

P. O'DONNELL.
RAILROAD SPIKE AND STEEL TIE FASTENER.
APPLICATION FILED NOV. 16, 1910.

985,278.

Patented Feb. 28, 1911.

Fig. 1

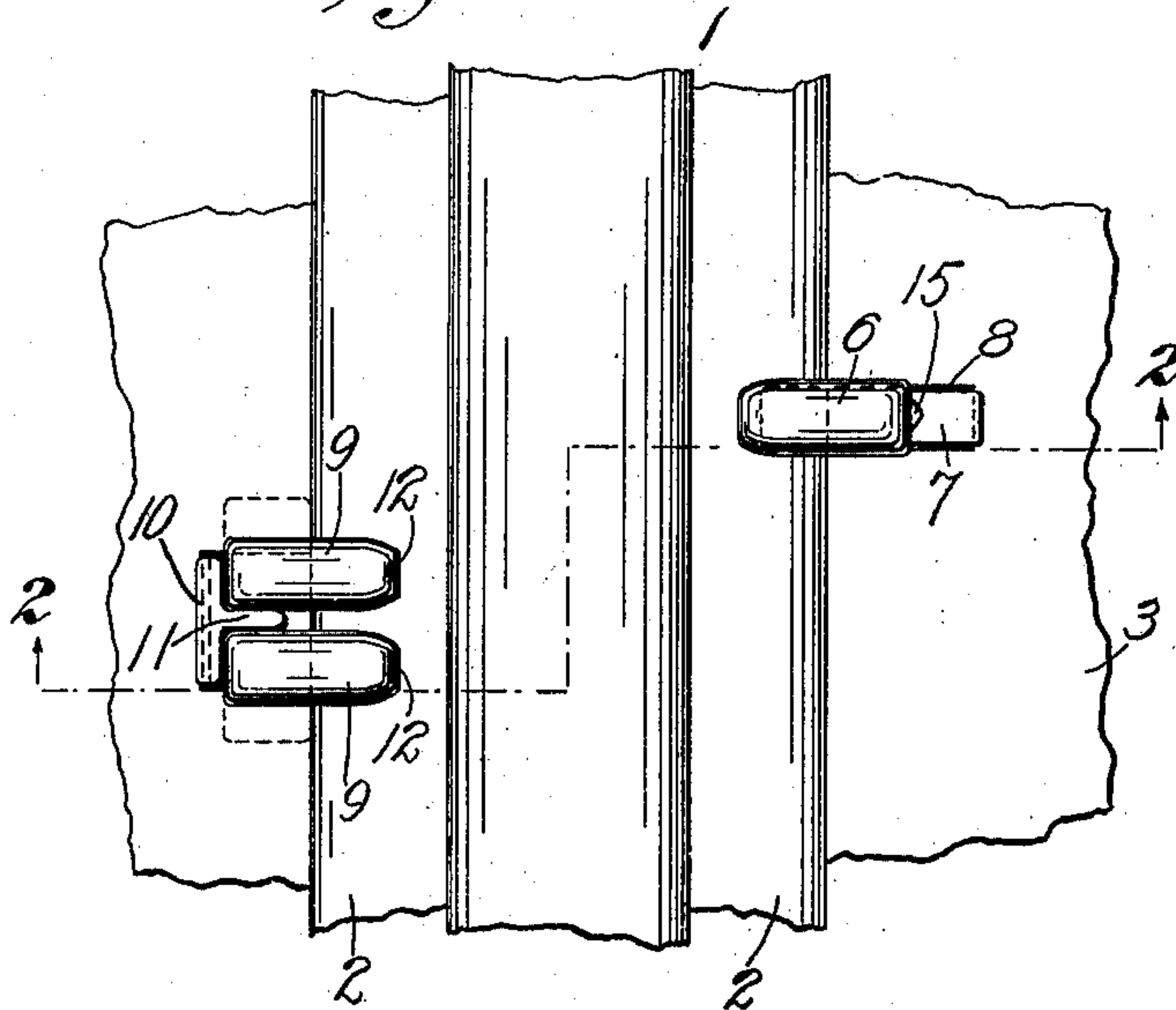


Fig. 2

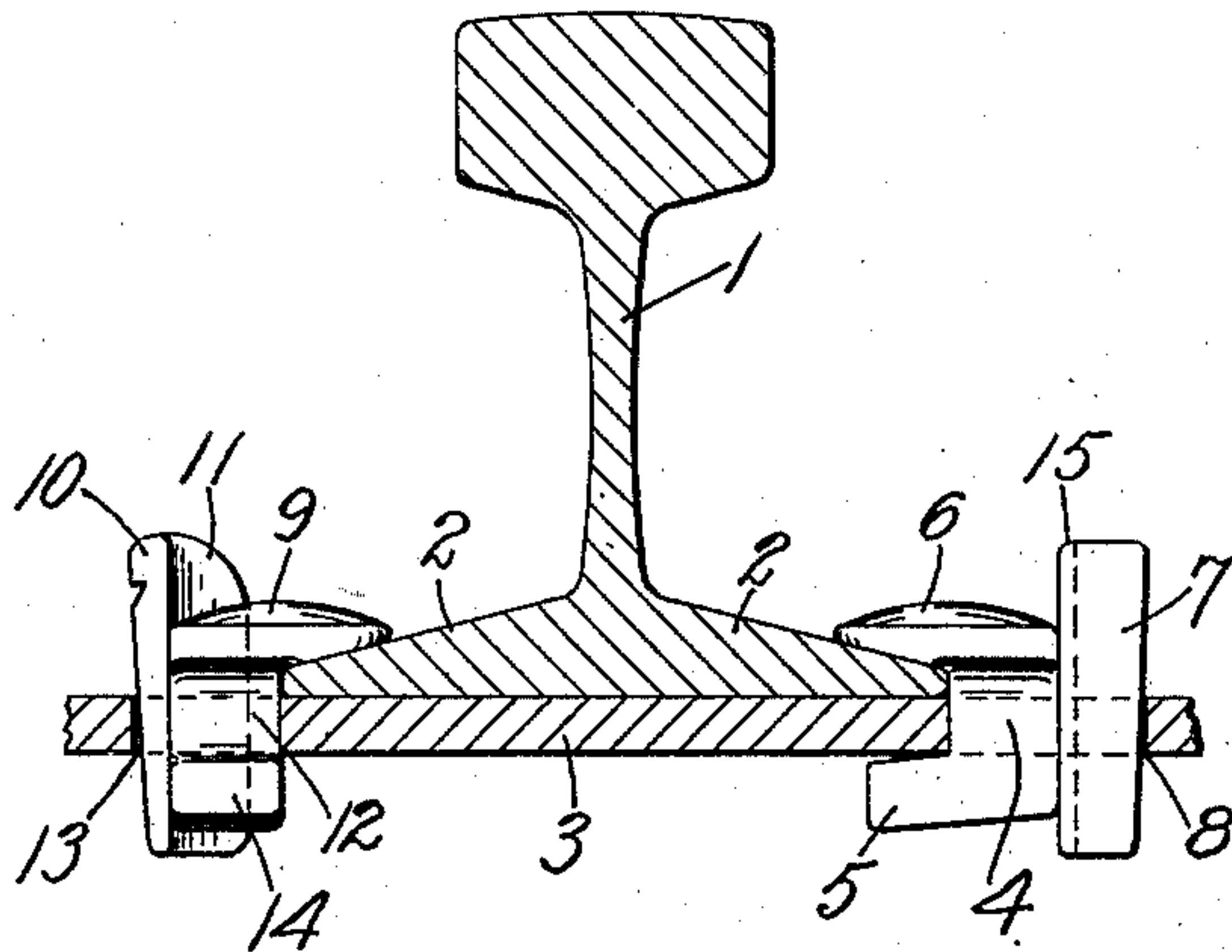
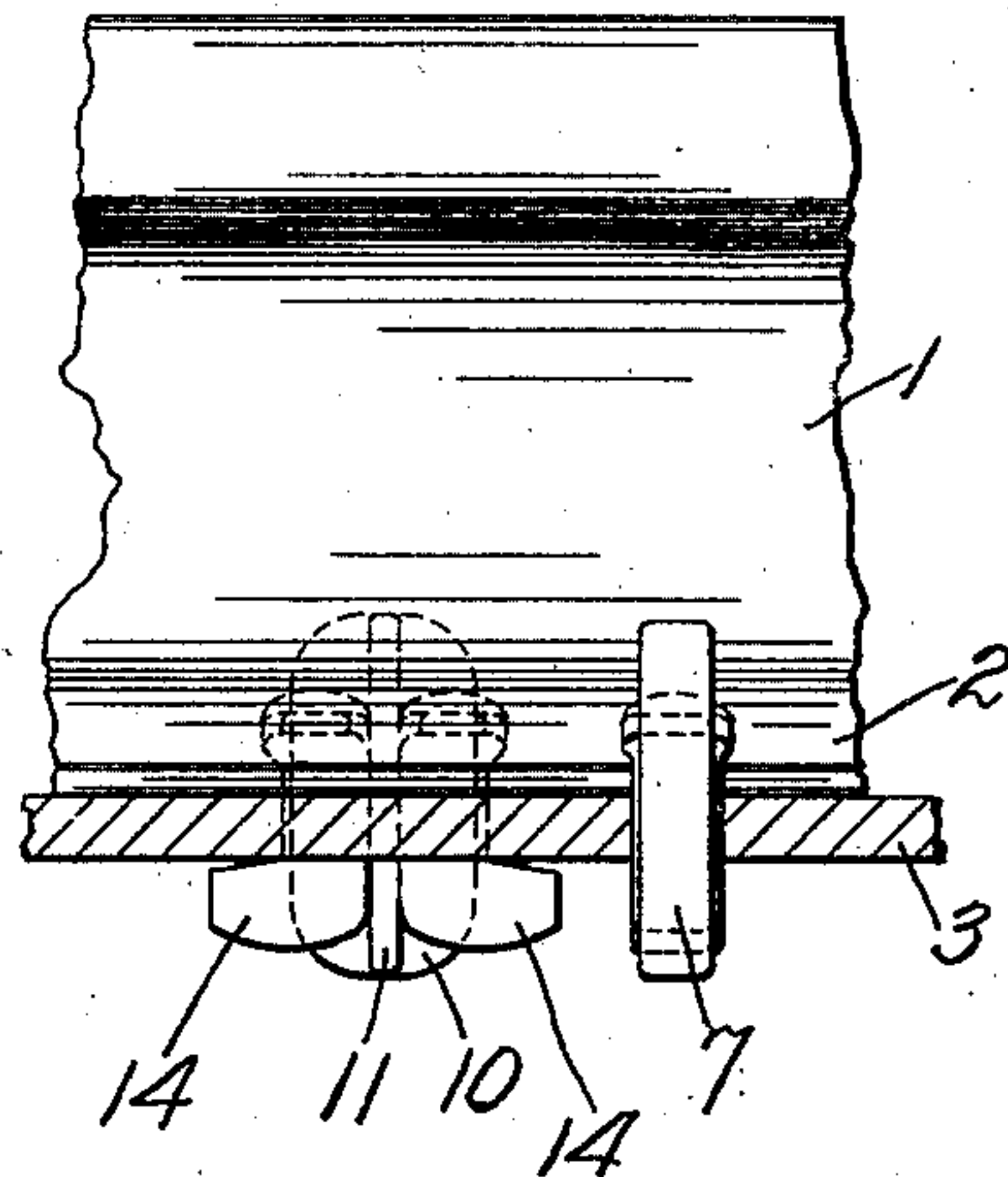


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

PETER O'DONNELL, OF BIWABIK, MINNESOTA.

RAILROAD-SPIKE AND STEEL-TIE FASTENER.

985,278.

Specification of Letters Patent.

Patented Feb. 28, 1911.

Application filed November 16, 1910. Serial No. 592,620.

To all whom it may concern:

Be it known that I, PETER O'DONNELL, a citizen of the United States, residing at Biwabik, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Railroad-Spikes and Steel-Tie Fasteners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an improvement in railroad spikes and steel tie fasteners, and for its object the production of a simple, cheap and efficient device for securing railway rails to a steel cross tie.

The invention consists essentially in certain details in the form and construction of the spike or fastener and in various peculiarities of the arrangement and combination of parts substantially as will be hereinafter described and then more particularly pointed out in the claim.

In the accompanying drawing illustrating my invention, Figure 1 is a top plan view of my improved railway spike and steel tie fastener. Fig. 2 is a cross section on the line 2, 2 of Fig. 1 with certain parts in elevation. Fig. 3 is a cross sectional, elevational detail at right angles to the section of Fig. 2.

Similar characters of reference designate corresponding parts throughout the different figures of the drawing.

In carrying my invention into practical effect I have designed a novel form of spike and steel tie fastener intended for use with cross ties for the road beds of railways, an example of which tie is indicated in partial view at 3.

1 designates an example of rail for railway service, the same having side flanges 2, 2 which are seated upon the tie 3. Adjacent to the outer-edges of the flanges 2, 2 the tie 3 is slotted at 8 on one side and at 13 on the other side for the reception of the fasten-

ing device to be presently described. In the slot 8 at one side of the rail I place an angular fastener 4 having on the upper end thereof a head 6 which projects at one side of the fastener 4 and rests upon the flange 2 while the lower end of the fastener 4 is provided with a projection 5 which engages underneath the tie 3. The fastener 4 is preferably made in rectangular cross section so that it will neatly occupy a position within the slot 8. A wedge 7 is also placed in the slot 8 and driven tightly against the fastener 4 so that the latter may be forced closely into the other end of the slot and in this way the head 6 caused to bind firmly upon the upper side of the flange 2. The under side of the head 6 is preferably made inclined to correspond with the inclination of the top side of the flange 2. Furthermore the wedge 7 is grooved at 15 to enable it to have a firmer grasp upon the adjoining side of the fastener 4. On the other side of the rail in the slot 13, already mentioned, I place a pair of fasteners 12, 12, each having a head 9 which grasps the top surface of the adjoining rail flange 2 and having on their lower ends projections 14 which project beneath the tie 3 and serve like the projection 5 to prevent the fasteners from getting out of the slot 13 when they are tightly wedged against the rail flange. The wedge used in this instance consists of a T-shaped piece 10 having a central flange 11 which lies between the fasteners 12 and suitably separates them. When the wedge 10 is driven home the result is to bind the heads 9 of the fasteners 12 closely against the adjacent flange 2.

By the use of these devices, presenting as they do an improved railroad spike and steel tie fastener, I am enabled to lock the rail and tie together and hold them firmly connected so that there is no danger of the tie getting loose and thereby misplaced.

Various changes in the precise form and details of the parts may be made without exceeding the scope of the invention.

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

In a railway tie fastener, the combination
with a rail having flanges and a slotted tie,
of fasteners having heads engaging the side
10 of the rail and foot projections which lie

underneath the tie, and a T-shaped wedge for separating two of said fasteners, and also for locking them firmly in position.

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

PETER O'DONNELL.

Witnesses:

WM. O'HARA,
OSCAR ERICKSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
