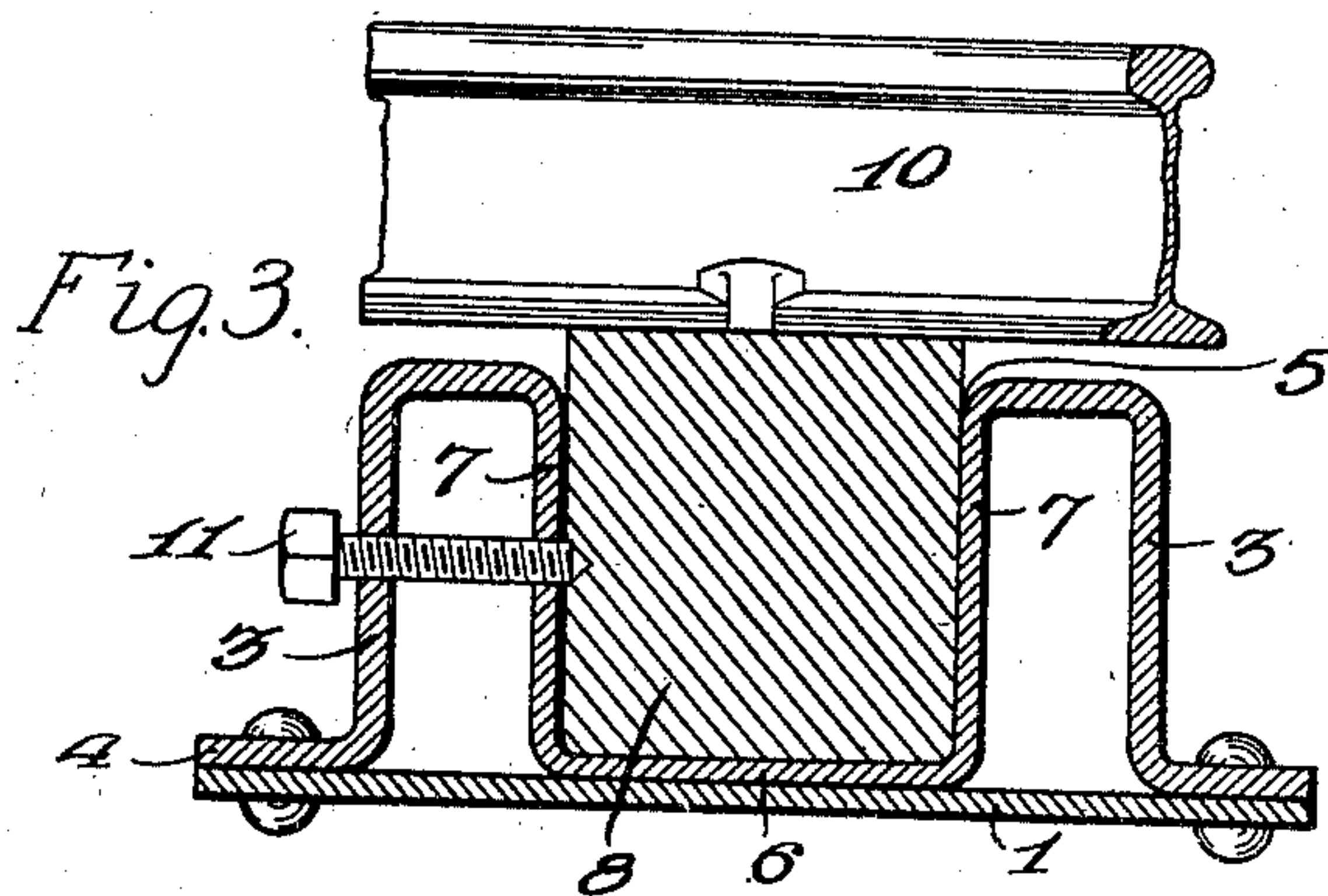
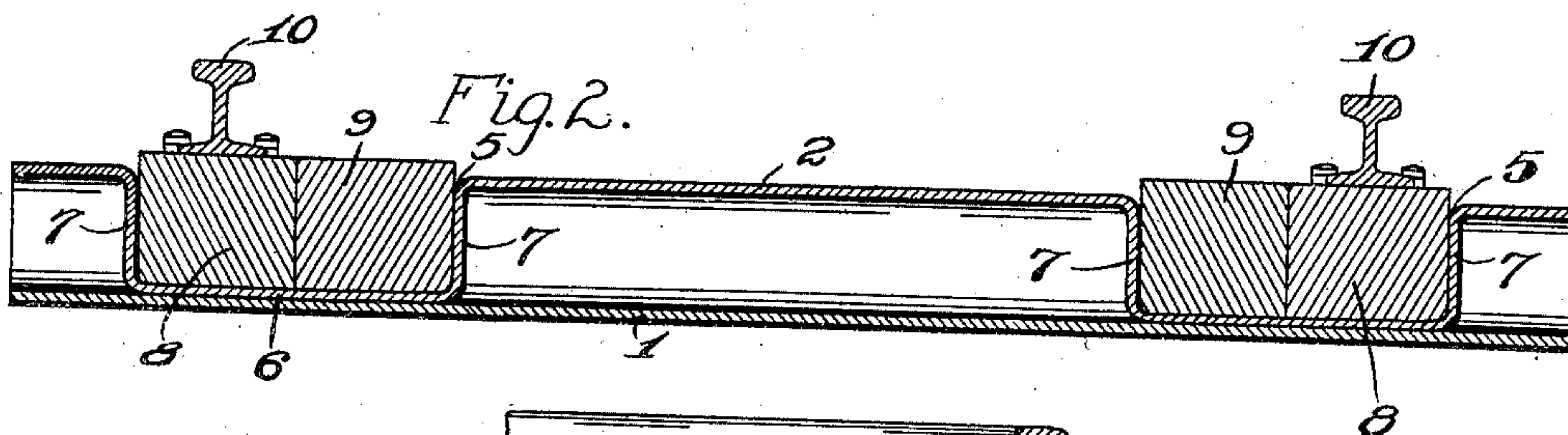
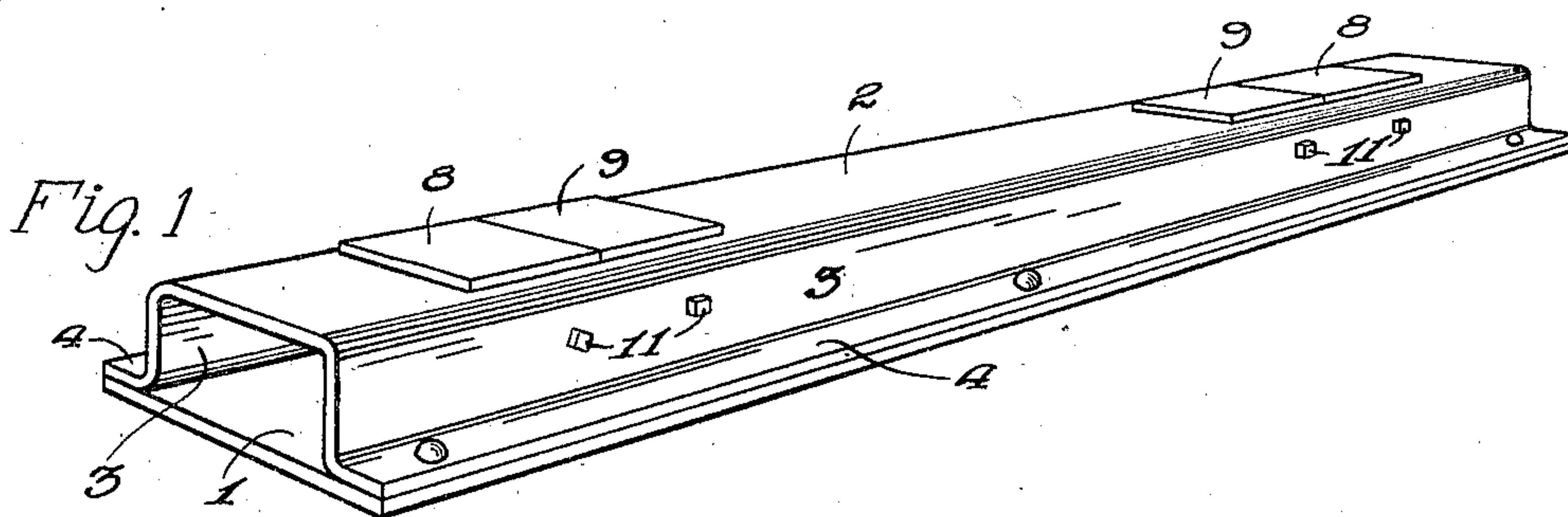


E. R. AXELSON & C. B. DESMOND.
RAILROAD TIE.

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986,669.

Patented Mar. 14, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWIN R. AXELSON AND CHARLES B. DESMOND, OF RICHMOND, CALIFORNIA.

RAILROAD-TIE.

986,669.

Specification of Letters Patent.

Patented Mar. 14, 1911.

Application filed May 11, 1910. Serial No. 560,628.

To all whom it may concern:

Be it known that we, EDWIN R. AXELSON and CHARLES B. DESMOND, citizens of the United States, residing at Richmond, in the county of Contra Costa and State of California, have invented certain new and useful Improvements in Railroad-Ties, of which the following is a specification.

This invention relates to railroad ties, and the principal object of the same is to provide novel rail supporting means therefor which may be readily replaced when damaged and in which the tie body is formed of metal and the rail supports of wood; so that the fastening of the rails to the ties may be performed by the usual spikes.

In carrying out the objects of the invention generally stated above it will be understood, of course, that the essential features thereof are necessarily susceptible of changes in details and structural arrangements, one preferred and practical embodiment of which is shown in the accompanying drawings, wherein:—

Figure 1 is a perspective view of the improved tie. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a transverse vertical sectional view.

Referring to the accompanying drawings by numerals, it will be seen that the improved tie comprises a flat base plate 1 and a body that is provided with a flat top 2 and pendent vertical sides 3 the lower portions of which are outturned to provide the flat flanges 4 which are riveted or otherwise rigidly fastened to the upper surface of the base plate 1. Said base plate and the body are of metal and form a rigid structure that is open at each end and provided with the flat base flanges at the longitudinal sides, said flanges and open ends obviously interlock with the roadbed so that slipping of the tie is prevented.

The tie is provided with a pocket 5 adjacent each end, the pockets being preferably rectangular in shape and provided with a bottom 6 that rests on the base plate 1 and surrounding side walls 7 which prevent access being had to said pockets except through the opening at the top. Two of the

side walls of the pocket are in spaced parallel relation to the pendent sides 3 of the body 2. The pockets are integral with the tie and may be formed in the process of casting, if the tie is cast, or if the tie is of steel, said pockets may be formed by the operation of a suitable stamping or pressing machine.

A rail supporting block 8 and a filler block 9 are snugly fitted in each pocket, said blocks being of wood and their upper surfaces project slightly above the flat top 2 of the body 1. The blocks 8 have the rails spiked thereto. Set screws or bolts 11 extend transversely through one side of the body and one side of each pocket and engage the blocks 8 and 9 to removably fasten said blocks in the pockets.

The filler blocks 9 retain the blocks 8 in proper rail supporting position, but when blocks 8 are damaged in a manner that necessitates the employment of new blocks, it will be seen that by removing blocks 9, the blocks 8, after being released from the rails, may be readily moved in the pockets from beneath the rails and then lifted from said pockets. This arrangement of blocks provides simple means whereby the rail supporting blocks may be removed from the tie without removing the rails.

What we claim as our invention is:—

A railroad tie comprising a flat base plate, a hollow body provided with straight sides and outturned flanges which are fastened to said base plate, said body having end pockets formed therein, the side walls of said pockets being in spaced parallel relation to the straight sides of the body, rail supporting blocks seated in said pockets, filler blocks also in said pockets, and fasteners extending through one side of the body and one of the side walls of the pockets and engaging said blocks.

In testimony whereof we affix our signatures in presence of two witnesses.

EDWIN R. AXELSON.

CHARLES B. DESMOND.

Witnesses:

H. C. SCHROEDER,

E. G. GRAY.