

J. VOEGELI & J. ROSENBERG.
METALLIC RAILWAY TIE AND RAIL FASTENER.
APPLICATION FILED NOV. 27, 1908.

912,761.

Patented Feb. 16, 1909.

Fig. 1.

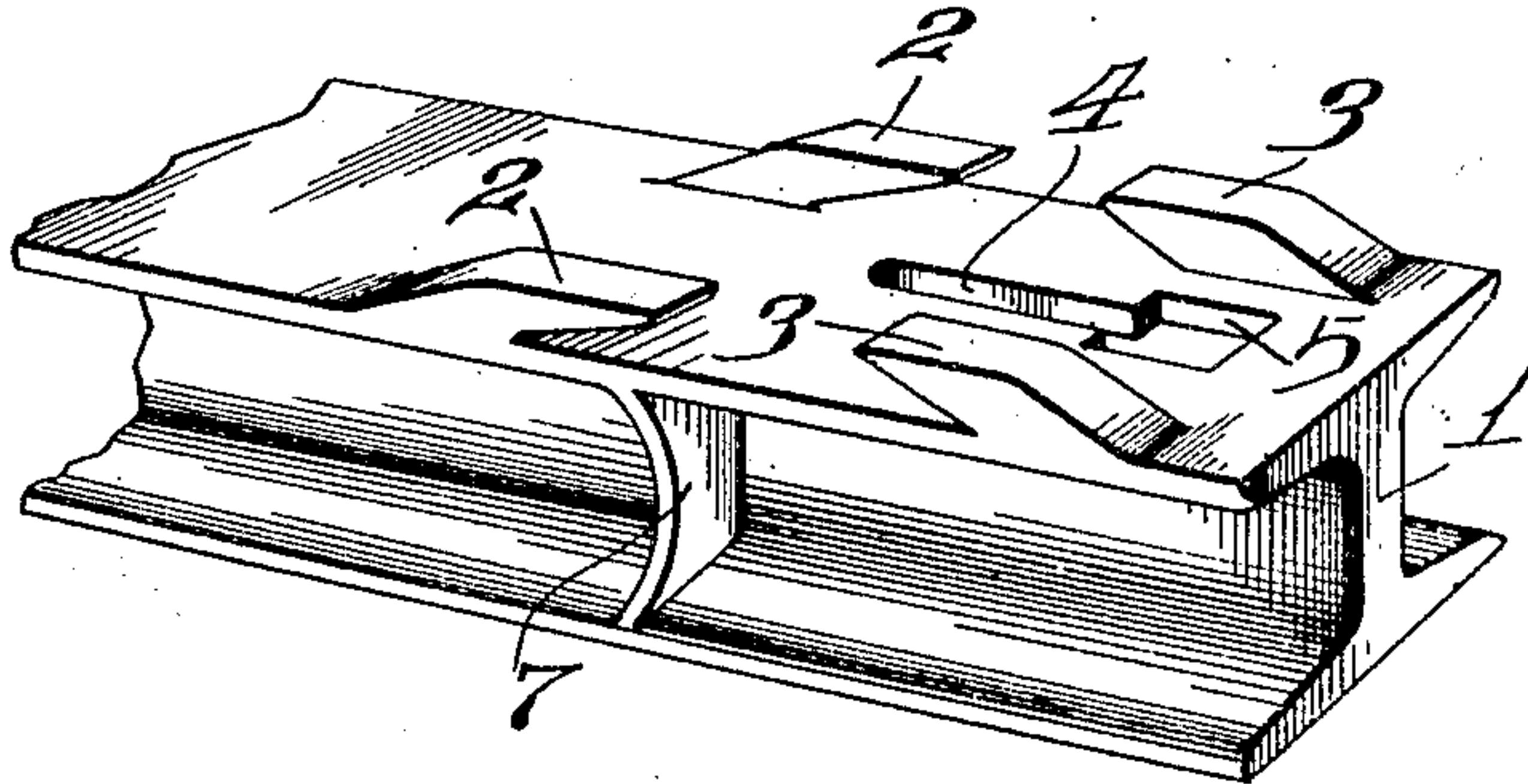


Fig. 2.

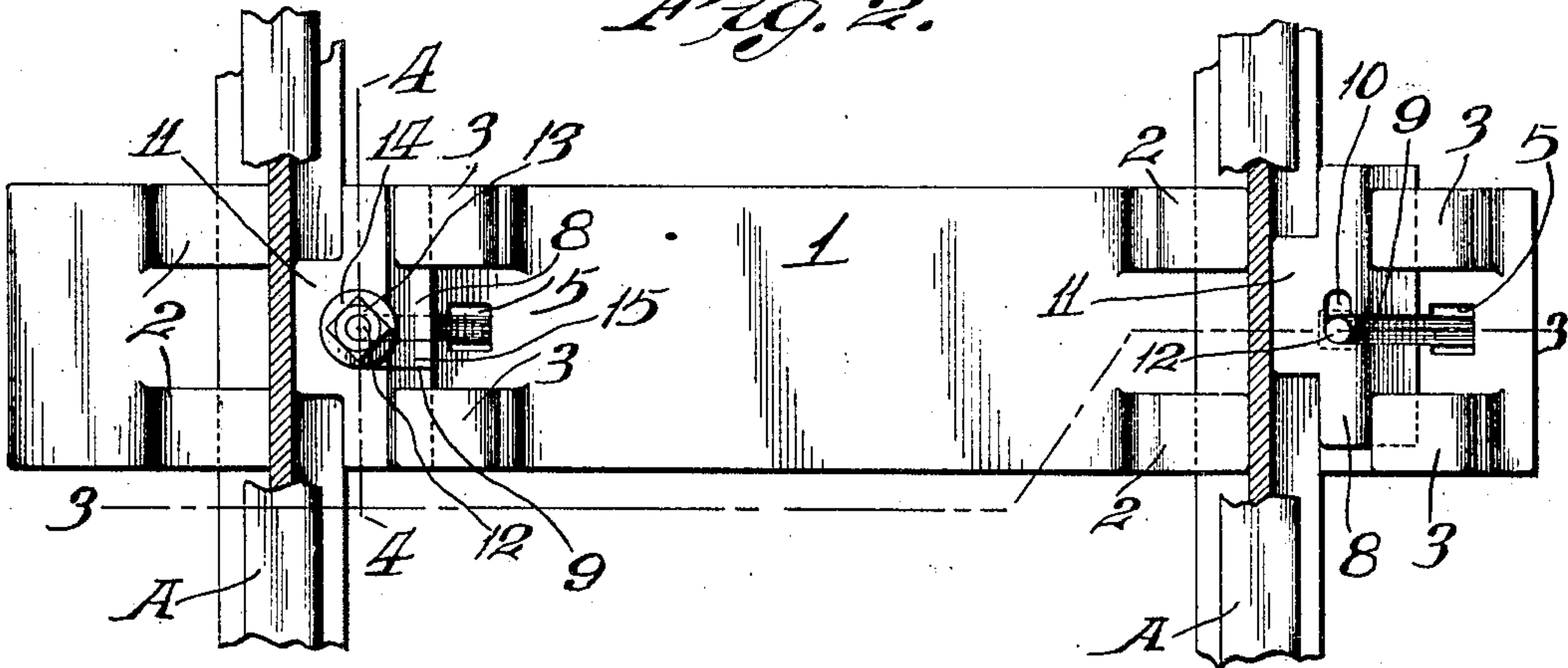


Fig. 3.

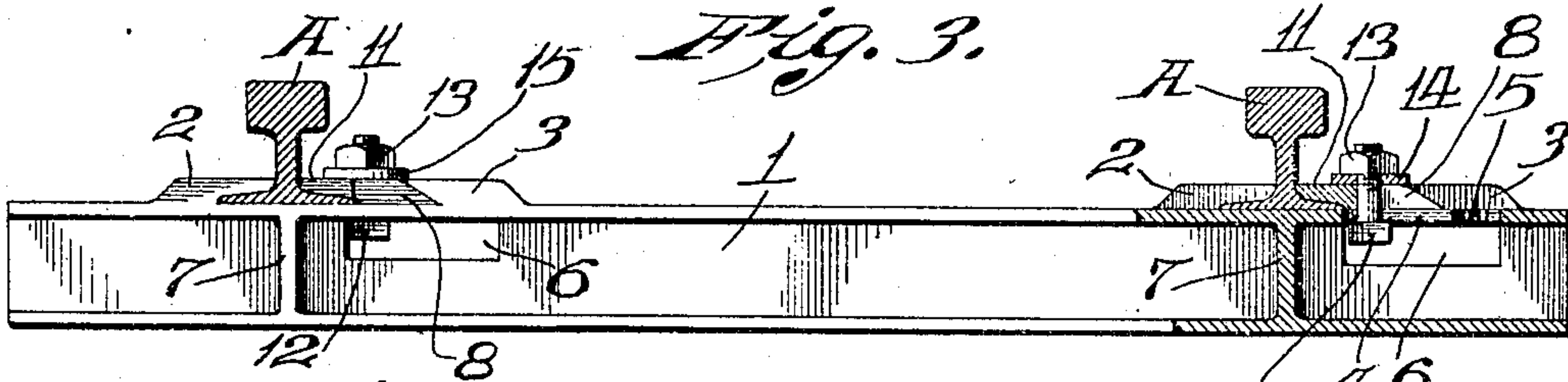


Fig. 4.

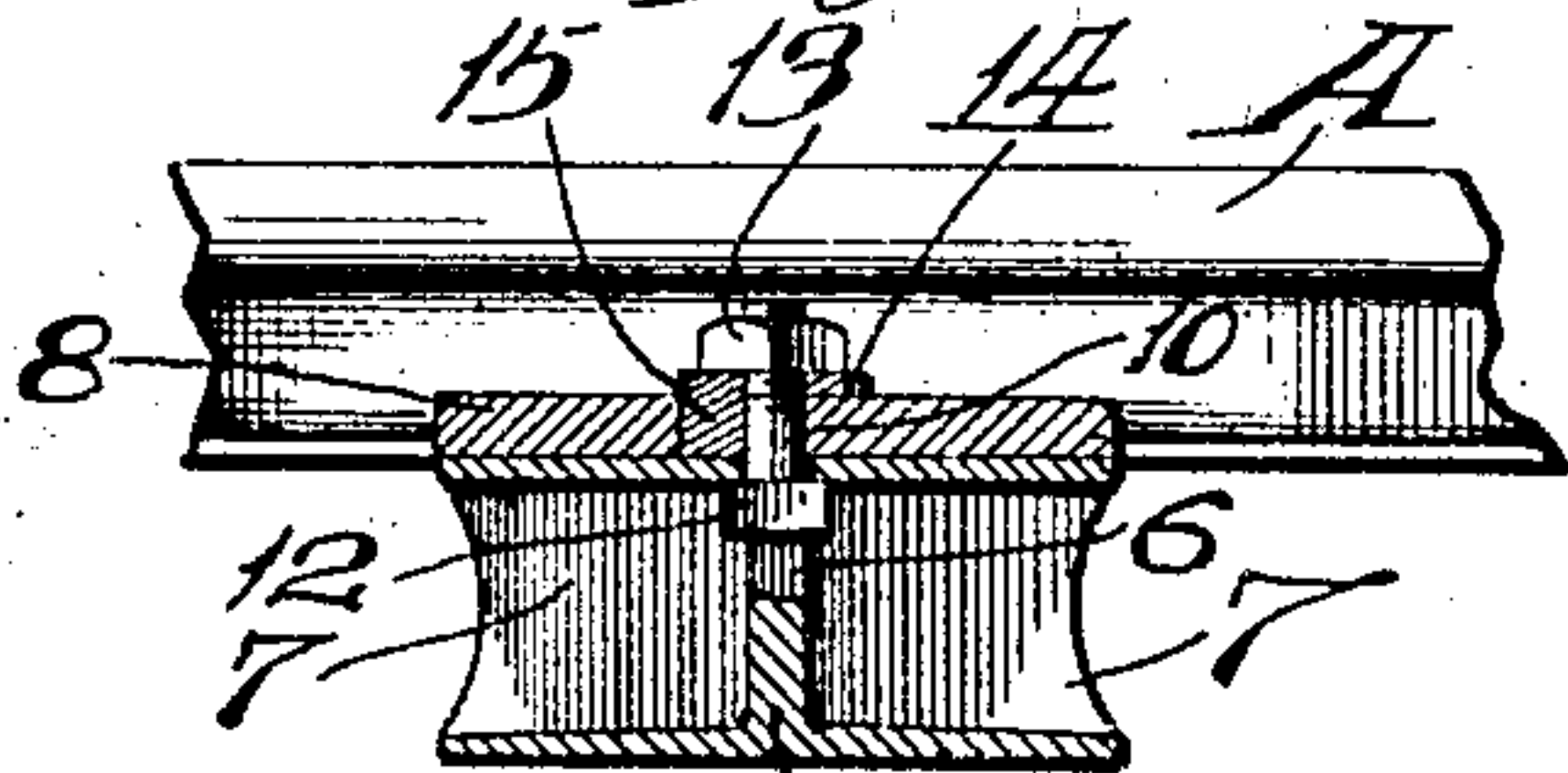
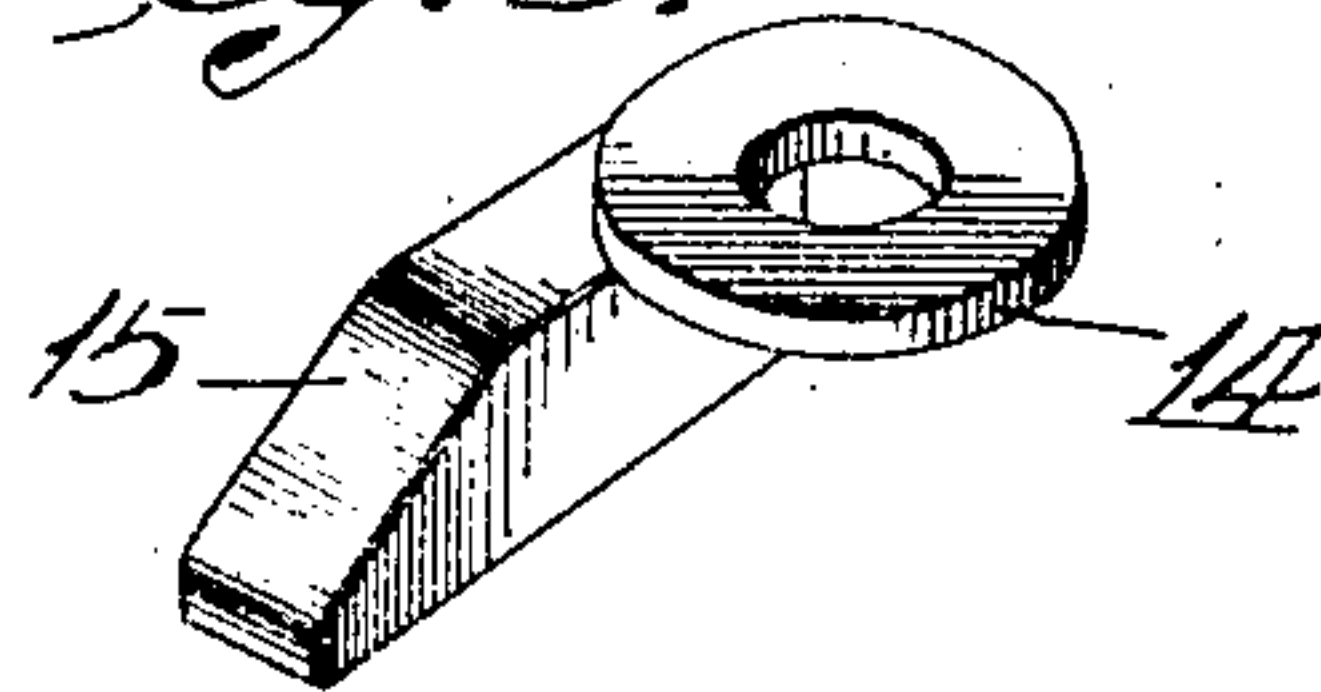


Fig. 5.



Attest
S. G. Fletcher.
W. P. Smith

Inventors.
John Voegli
Julius Rosenberg.
By Higdon Langaw.
Attys

UNITED STATES PATENT OFFICE.

JOHN VOEGELI AND JULIUS ROSENBERG, OF GRANITE CITY, ILLINOIS.

METALLIC RAILWAY-TIE AND RAIL-FASTENER.

No. 912,761.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed November 27, 1908. Serial No. 464,609.

To all whom it may concern:

Be it known that we, JOHN VOEGELI and JULIUS ROSENBERG, both citizens of the United States, and residents of Granite City, Madison county, Illinois, have invented certain new and useful Improvements in Metallic Railway-Ties and Rail-Fasteners, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates to a metallic railway tie and rail fastener, and the particular object of our invention is to generally improve the construction of the metallic railway tie and rail fastener shown and disclosed in an application for patent filed by us May 19th, 1908, Serial No. 433,742.

A further object of our invention is to provide a combined metallic railway tie and rail fastener with a key or wedge block which locks against one of the base flanges of the track rail, and which key or wedge block is provided with an ordinary slot to receive the locking bolt, and there being a filler block integral with the washer used in connection with the bolt, and which filler block normally occupies the slot in said key or wedge block.

To the above purposes, our invention consists in certain novel features of construction and arrangement of parts, which will be hereinafter more fully set forth, pointed out in the claims, and illustrated in the accompanying drawings, in which:—

Figure 1 is a perspective view of one end of a metallic tie of our improved construction; Fig. 2 is a plan view of the tie and rail fastener, and showing rails in position on the tie, portions of which rails are broken away; Fig. 3 is a section taken on the line 3—3 of Fig. 2; Fig. 4 is a section taken on the line 4—4 of Fig. 2; Fig. 5 is a perspective view of the combined washer and filler block.

The body 1 of our improved tie, which is constructed of suitable metal, is in the form of an I-beam, and formed integral with the top flanges of the body, at each end thereof, are the pairs of lugs 2, which are undercut in order to receive one of the base flanges of each rail A; and arranged directly opposite each pair of lugs 2 is a corresponding pair of undercut lugs 3, and between each pair of

last mentioned lugs is formed a slot 4, one end of which is widened, as designated by 5.

Formed in the vertical web of the body 1, immediately beneath each slot 4 is an opening 6; and formed integral with the top and bottom flanges of the body 1, and with the web thereof, are the vertically disposed strengthening ribs 7, which are approximately in vertical alinement with the ends of the lugs 2, and are thus in position directly beneath the rails A when the same are located on the tie.

The keys or wedge blocks used in connection with the tie comprise straight body portions 8, which are adapted to fill the space between the undercut lugs 3 and the adjacent edges of the rails A; and the outer edge of the top face of each key is formed so as to fit beneath the undercut lugs 3; and formed in each body portion 8 is a transversely disposed slot 9, the inner end of which is projected laterally to form a pocket 10.

Formed integral with the edge of each body portion 8, opposite the edge which engages beneath the lugs 3, is a lip 11, which is so formed as to engage over the corresponding base flange of the adjacent rail A.

When the keys or wedge blocks are in proper position, they are locked to the tie by means of a bolt 12 which passes through the end of the slot 4 and through the pocket 10; and arranged on top of the body 8, and beneath the nut 13 on said bolt 12 is a washer 14, with which is formed integral a filler block 15, which, when the parts are thus assembled, occupies the adjacent slot 9.

When a rail is to be locked in position on a tie of our improved construction, one of the base flanges of said rail is fitted beneath the undercut lugs 2, after which one of the wedge blocks is inserted beneath the undercut lugs 3, with the lip 11 over the corresponding base flange of the rail; and said key or wedge block is moved transversely relative to the tie until the slot 9 coincides with the slot 4. The head of the bolt 12 is now inserted through the opening 5, and with said head occupying the opening 6, the bolt is moved through the coinciding slots 4 and 9 to the opposite ends thereof, and thus said bolt is brought into alinement with the pocket 10. The key or wedge block is now moved laterally, or in such a manner as that the bolt 12 occupies the pocket 10, and thus a

portion of the body 8 lies immediately over the central portion of the slot 4, after which one of the washers 4 is positioned over the projecting upper end of the bolt, with the
 5 filler block 15 occupying the slot 9; and when the nut 13 is tightened upon the threaded end of the bolt, the parts will be very rigidly locked to one another and the rail is very tightly clamped to the tie.

10 The filler block 15 gives the key or wedge block a neat and finished appearance, prevents the slot 9 from becoming filled with dirt or other foreign substance and effectually prevents the accidental displacement
 15 of the bolt 12 while the device is in use.

The body 1 of the tie is preferably cast, and by providing the flanges or ribs 7, the tie is strengthened immediately beneath the point occupied by the rails A, and when the
 20 tie is embedded in the ground, said ribs or flanges prevent said tie from shifting laterally of the track.

We claim:—

1. A metallic railway tie and rail fastener, comprising a body of I-beam form in cross section, pairs of oppositely arranged
 25 lugs integral with the top of said body, certain of which lugs receive one of the base flanges of the track rails, a key arranged
 30 between each rail and the opposite pair of lugs of each set, there being a transverse slot formed in each key, there being a slot formed in the top of the body of the tie between the second mentioned pair of each set of lugs,

a bolt passing through the slots in the tie 35 and key, a washer for said bolt, and a filler block integral with the washer and adapted to occupy the slot in the corresponding key.

2. In a metallic railway tie and rail fastener, a slotted key adapted to be locked to
 40 the tie and to engage one of the base flanges of the track rail, a filler block normally occupying the slot in the key, and a washer integral with the filler block, and which washer is arranged on the bolt which fastens
 45 the key to the tie.

3. A metallic railway tie and rail fastener, comprising a body, pairs of oppositely disposed lugs formed integral with the top
 50 of said body, one of which pairs of lugs is adapted to receive one of the base flanges of the track rail, a slotted key engaging the opposite base flange of the rail and engaging beneath the opposite pair of lugs, a bolt
 55 passing through the slot in the key for securing the same to the body, a filler block normally occupying the slot in the key, a washer integral with the filler block for engaging upon the bolt which fastens the key
 60 to the body of the tie.

In testimony whereof, we have signed our names to this specification, in presence of two subscribing witnesses.

JOHN VOEGELI.

JULIUS ROSENBERG.

Witnesses:

M. P. SMITH,

E. L. WALLACE.