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Patented Feb. 4, 1902.

D. J. MEYER.

METALLIC RAILWAY TIE AND RAIL FASTENING.

(Application filed Nov. 9, 1901.)

(No Model.)

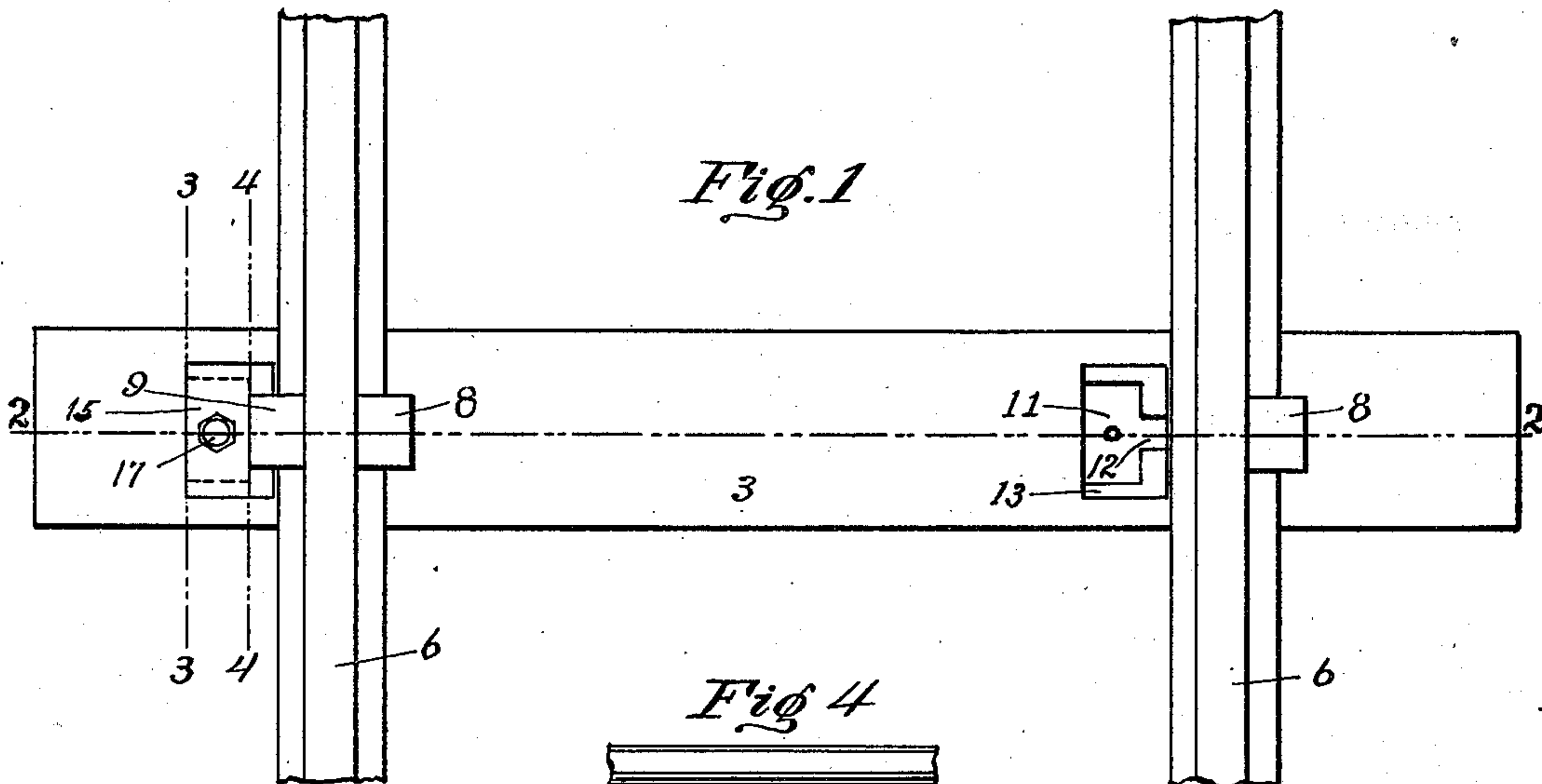


Fig. 4

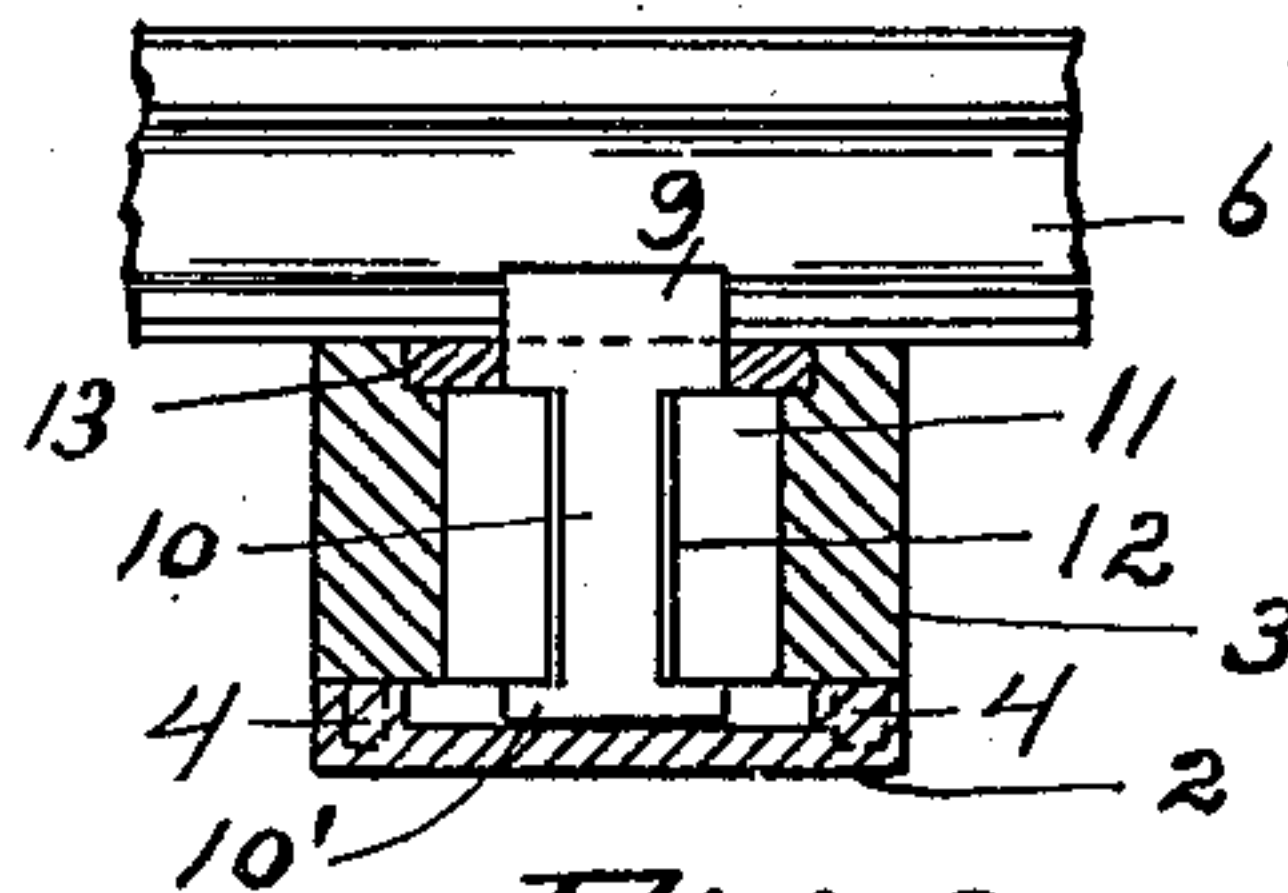


Fig. 2

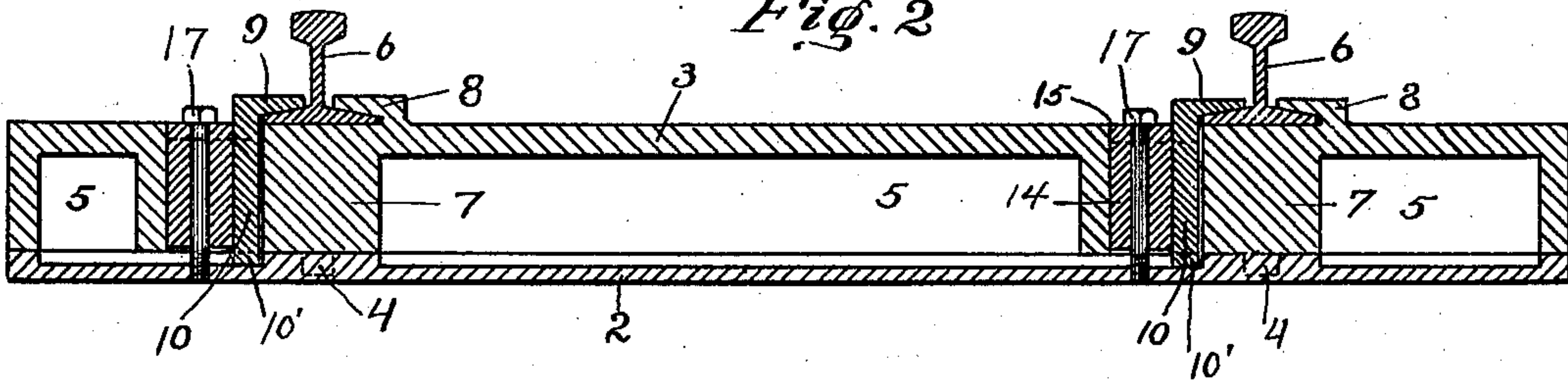


Fig. 5

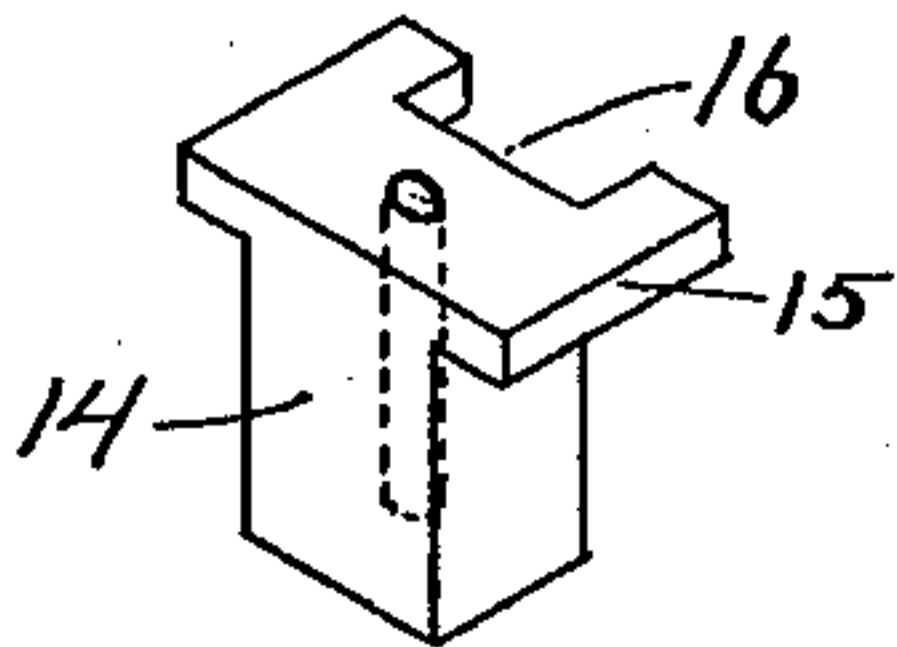


Fig. 3

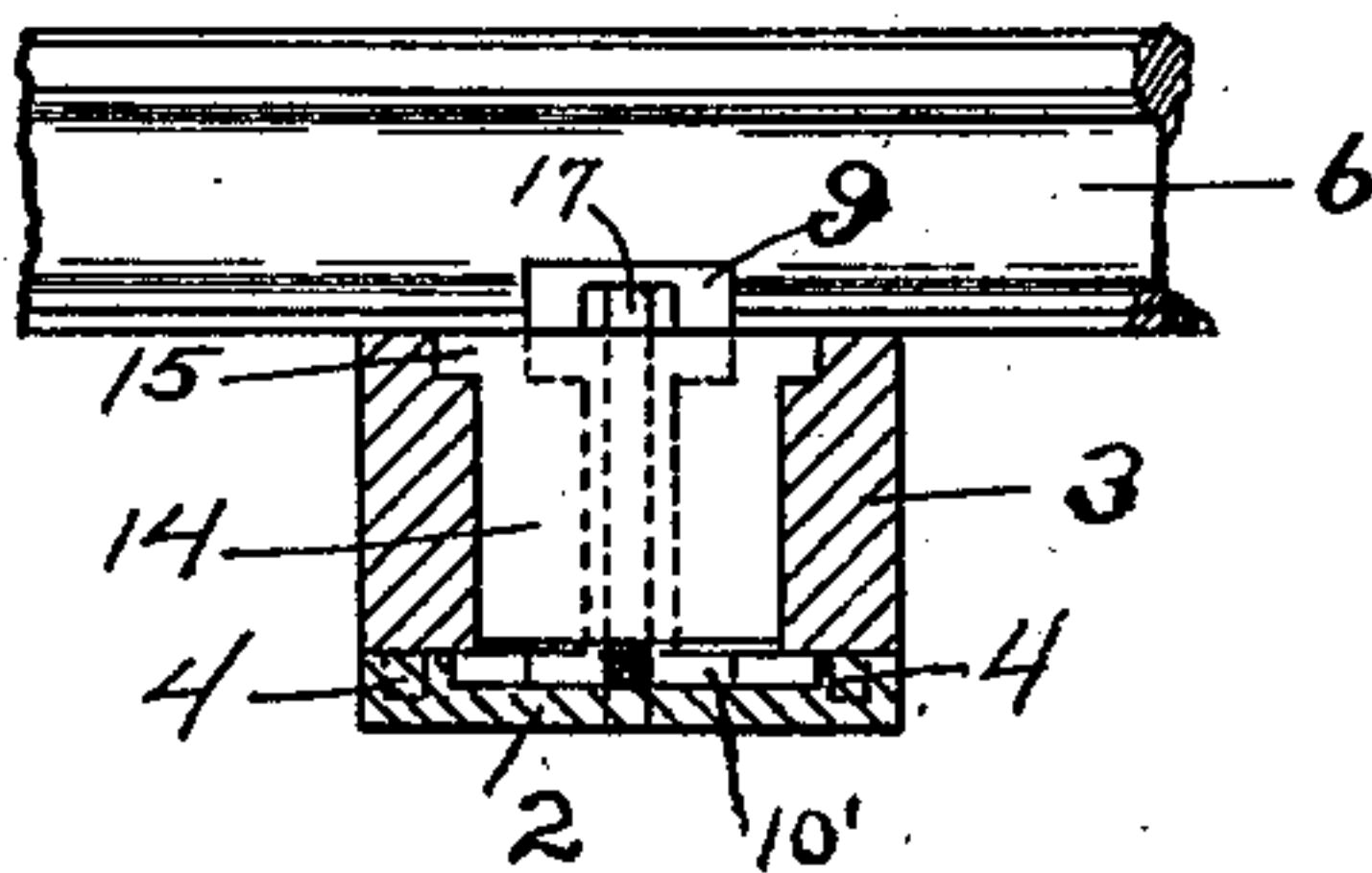
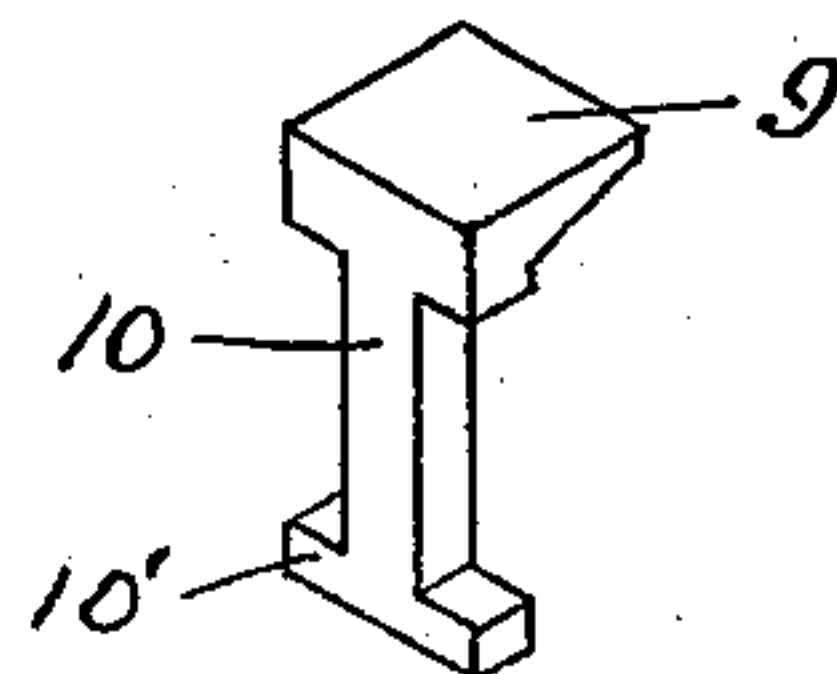


Fig. 6



Witnesses.

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METALLIC RAILWAY-TIE AND RAIL-FASTENING.

SPECIFICATION forming part of Letters Patent No. 692,689, dated February 4, 1902.

Application filed November 9, 1901. Serial No. 81,694. (No model.)

To all whom it may concern:

Be it known that I, DOMINICK J. MEYER, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Railway-Ties and Rail-Fastenings, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to metallic railway-ties and rail-fastenings; and the object thereof is to provide simple, durable, and inexpensive means for sustaining and securing the rails.

15 The invention consists in the novel features of construction and in the combination and arrangement of parts hereinafter fully described and claimed, and illustrated by the accompanying drawings, wherein—

20 Figure 1 is a plan view of my improved rail-fastening and tie. Fig. 2 is a longitudinal sectional view taken on line 2 2 of Fig. 1. Fig. 3 is a cross-sectional view on line 3 3 of Fig. 1, and Fig. 4 is a similar view on line 4 4 of the same figure. Figs. 5 and 6 are detail views of the rail-fastening devices.

Referring to the drawings, 2 represents a base-plate, and 3 the tie proper, which rests thereon, being provided with depending lugs 4, which enter corresponding depressions in the base-plate for maintaining the tie proper in correct position thereon. The tie is preferably cored at 5 to avoid a needlessly heavy structure and to save material. Beneath the track-rails 6 the tie is solid, as indicated at 7, to provide a firm and unyielding support.

On the upper face of the tie and preferably integral therewith are the hook-shaped lugs 8, which embrace and confine one side of the rail-flanges. These lugs are disposed in the same direction, whereby when the fastenings, presently to be described, for the opposite sides of the rails are removed the tie may be slipped longitudinally in the direction indicated by the arrow in Fig. 2 and removed from the track, and in like manner the tie may be readily inserted in a track with the tie carrying the fastening for one side of each of the rails.

50 The removable fastening for each rail consists of a clip 9, which overhangs and binds

the rail-flange, and depending therefrom is a stem 10, having an enlarged lower end 10'. The tie 3 is formed with a vertical opening 11 of rectangular outline, having at one side the offset 12, the upper face of the tie being countersunk at said opening, as shown at 13. After the tie has been positioned beneath the rail or the rail positioned on the tie with one side of the rail-flange beneath and secured by the permanent lug 8 the shank of clip 9, with its enlarged lower end, is inserted in opening 11 and moved laterally into opening-offset 12, which it snugly fits, with the enlarged lower end 10' of the clip-shank underhanging the bottom of tie 3 and the clip 9 overhanging and securing the rail-flange. For securing the clip in this position I provide the angular key 14, which closely fits opening 11 with the clip in the described position, said key being formed with the flat enlargement or head 15 of the same depth as and snugly fitting within countersunk depression 13. Head 15 is notched at 16 to embrace clip-stem 10 immediately beneath clip 9. The rail-securing clip is thus effectively interlocked with the tie with the securing means flush with the top surface of the latter. The key 14 is apertured vertically to pass the headed screw 17, which enters a threaded aperture in base-plate 2, thus not only securing the key, but also binding together the tie proper and base-plate. The base-plate not only sustains the tie proper, but also tightly closes the open under surface thereof and protects the same and the rail-securing devices against the deteriorating influences of dampness and dirt, which otherwise would have free access thereto. Also, as the ties proper will be made interchangeable and the base-plates interchangeable, if one element should outlast the other the remaining good portion of the tie structure may be again used, thereby effecting a very material saving as compared with the substitution of an entirely new tie.

The tie and fastenings may be formed of any suitable metal, and it will be understood that various changes in form and construction of the several elements may be practiced without departing from the spirit and scope of the invention.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a tie having a vertical opening formed with a lateral offset, a rail-confining clip adapted to fit the opening-
5 offset and interlock with the tie, and a key adapted to enter the opening behind the clip and secure the same, said key being formed with a lateral clip-embracing extension, sub-
10 stantially as shown and described.

2. The combination of a tie having vertical opening 11 formed with lateral offset 12, rail-confining clip 9 having shank 10 adapted to fit offset 12 and formed at its lower end with
15 enlargement 10' whereby the clip is held against vertical displacement, and a key adapted to be inserted in opening 11 for securing the clip in the position described.

3. The combination of a tie formed with a
20 vertical countersunk opening having a lateral offset, a rail-confining clip having a shank

adapted to fit said opening-offset, the clip-shank being enlarged at its lower end to overlap the lower portion of said opening-offset, and a locking-key removably fitting the open-
25 ing and confining the clip in the position described, the key being formed with a flat and notched head which fills the countersunk portion of the tie-opening and embraces the clip.

4. The combination of a tie formed with a
30 vertical opening, a rail-confining clip having a shank within the opening, a clip-confining key fitting the opening and formed with a vertical aperture, and a screw extended there-through and into the base portion of the tie.
35

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

DOMINICK J. MEYER.

Witnesses:

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