J. KLEGA.

STEEL RAILROAD TIE.

APPLICATION FILED DEC. 28, 1909.

953,533.

Patented Mar. 29, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

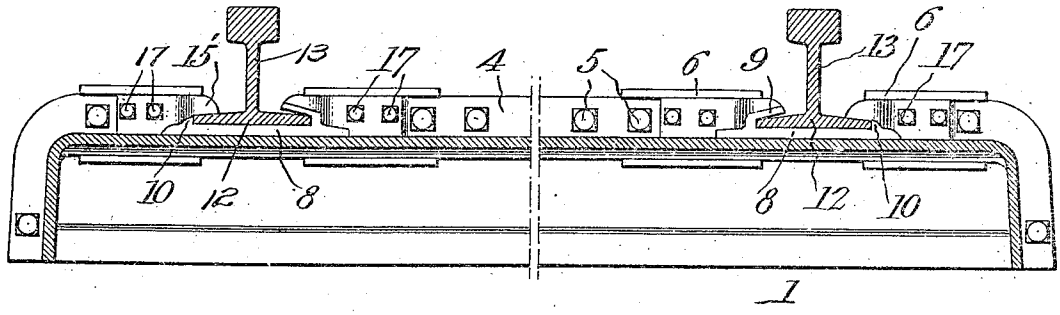


Fig. 2.

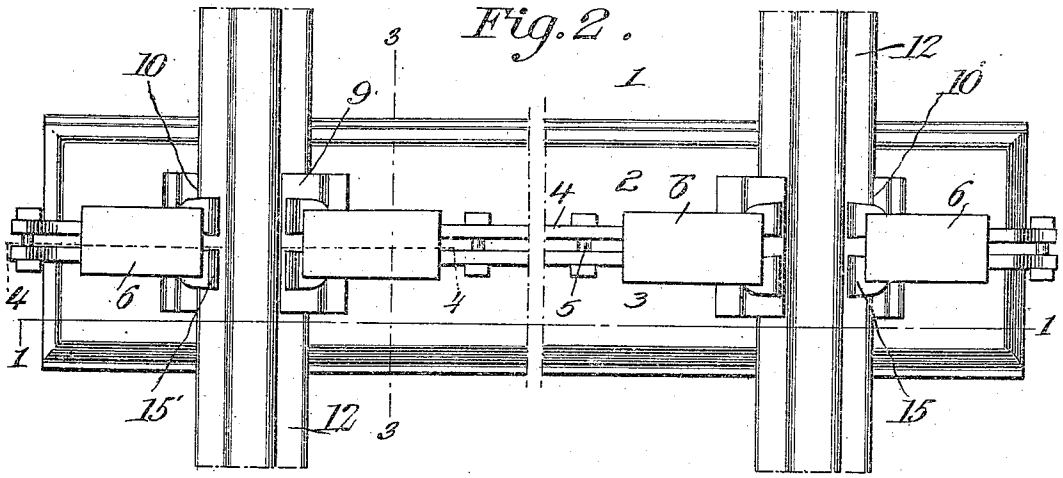
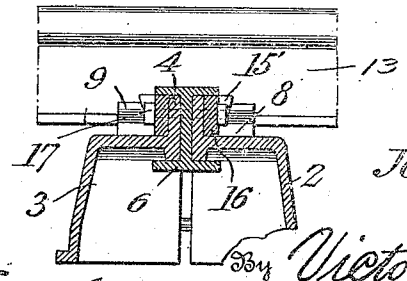


Fig. 3.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

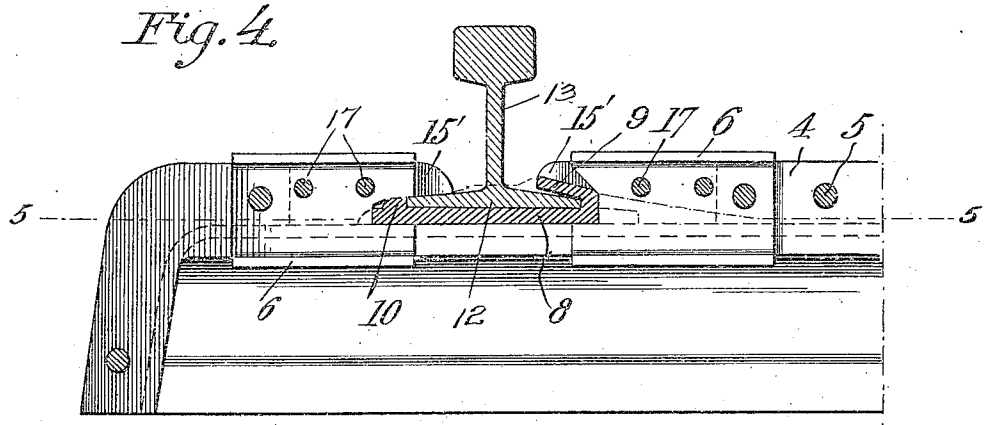


Fig 5.

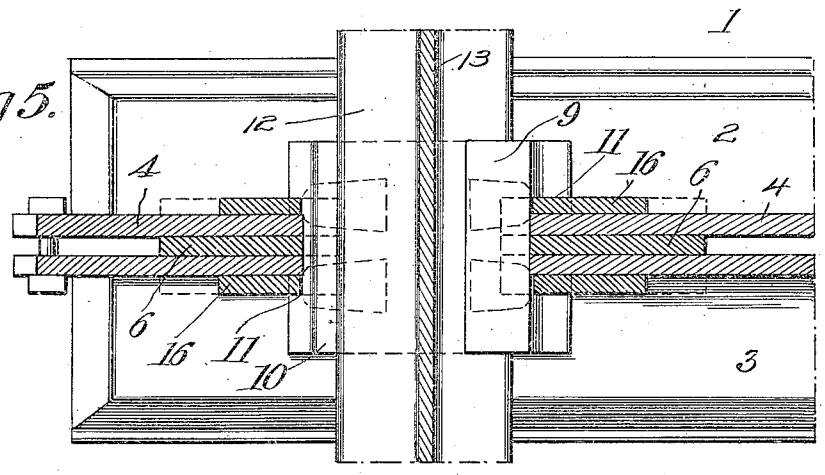


Fig. 6.

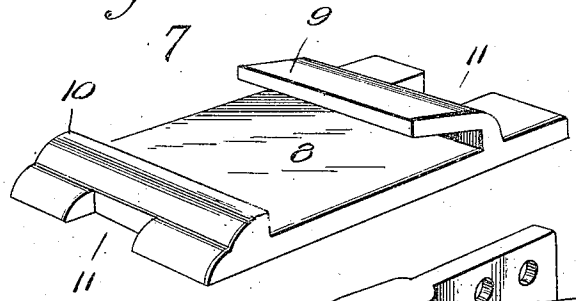


Fig. 8.

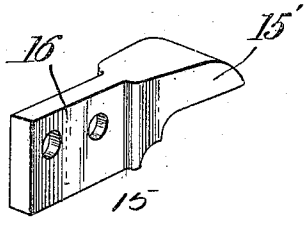
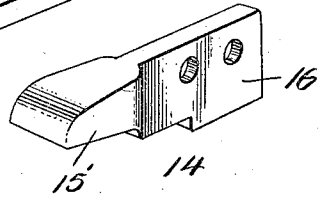


Fig. 7.



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UNITED STATES PATENT OFFICE.

JOSEPH KLEGA, OF EASTON, PENNSYLVANIA.

STEEL RAILROAD-TIE.

953,533. Specification of Letters Patent. Patented Mar. 29, 1910.

Application filed December 28, 1909. Serial No. 535,354.

To all whom it may concern:

Be it known that I, JOSEPH KLEGA, a citizen of the United States, residing at Easton, in the county of Northampton and State of Pennsylvania, have invented new and useful Improvements in Steel Railroad-Ties, of which the following is a specification.

This invention relates to a combined metallic railway tie and rail clamp, and the object of the invention is to provide a device of this character which is comparatively simple in construction, which can be constructed at a low cost, which is strong and which is provided with means whereby the rails may be easily and securely connected therewith.

With the above, and other objects in view, which will appear as the description progresses, the invention resides in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings there has been illustrated a simple and preferred embodiment of the improvement, and in which drawings,

Figure 1 is a longitudinal sectional view upon the line 1—1 of Fig. 2. Fig. 2 is a top plan view of the same. Fig. 3 is a transverse sectional view upon the line 3—3 of Fig. 2. Fig. 4 is an enlarged section upon the line 4—4 of Fig. 2. Fig. 5 is a horizontal sectional view upon the line 5—5 of Fig. 4. Fig. 6 is a perspective view of the rail chair. Figs. 7 and 8 are detail perspective views of the locking members or dogs.

In the accompanying drawings the numeral 1 designates the improved tie. This tie 1 comprises essentially a pair of hollow rectangular members 2 and 3. Each of the members 2 and 3 is provided with a side and ends and has its face open and the upper wall thereof provided with vertical flanges 4 projecting both above and below the said wall and extending the entire length of the said face. The projecting portions of the flanges 4 are provided at intervals with alining openings, and the said openings are adapted for the reception of suitable connecting elements, such as bolts and nuts as designated by the numerals 5. The flanges 4 adjacent the ends of the members 2 and 3 are cut away for a suitable distance and adjacent this cut-away portion and between the said flanges 4 is positioned a plurality of I-beam sections designated by the numerals 6. These I-beams 6 have their offset heads engaging the top and bottom walls of the flanges 4 and serve as an effective means for spacing said flanges as well as the members 2 and 3 a suitable distance away from each other.

The numeral 7 designates the chairs adapted to be positioned in the cut away portions of the flanges and to lie upon the upper faces of the members 2 and 3. Each of these chairs 7 comprises a horizontally straight base portion 8 having an overlying flange 9, adjacent one of its ends and an offset projection 10 adjacent its opposite end. The portions beyond the overlying flange and the offset flange of the base 8 are centrally cut away as designated by the numerals 11, and these cut-away portions are adapted to receive the vertical web of the I-beams 6. It is to be understood that the I-beams are provided with a plurality of openings, one of which alines with the openings within the flanges 4 and the same being adapted for the reception of suitable securing elements 5. By this arrangement, it will be noted that it is merely necessary to tilt the base flange 12 of the rails 13 so as to position the same beneath the overlying flange 9 of the chair 7, and the opposite edge of the said flange 12 will snugly engage the offset 10 of the said chair. In order to effectively secure this edge of the flange 12 upon the chair, I have provided a pair of locking dogs 14 and 15, the said dogs being provided with cut-away portions adapted to coincide with the shape of the end of the chair 8 and being further provided with projecting lips 15′ which are adapted to lie upon the top of the base flange of the rail. The bodies 16 of the dogs 14 are of a width equaling the distance between the top of the members 2 and 3 and the upper head of the I-beam 6, and the said body is provided with suitable openings adapted to aline with the unengaged openings in the I-beams 6 and to be connected thereto through the medium of suitable securing elements 17. It will be noted by reference to the figures of the drawings that these locking dogs are positioned upon each side of the I-beams and that a pair of the said dogs has also been employed to reinforce the overlying flange 9 of the chair 7. These latter dogs may however, in some cases be dispensed with.

From the above description, taken in connection with the accompanying drawings, it

will be noted that when it is desired to remove the rail 13 from its position upon the chair 7, it is merely necessary to unfasten the bolts 17 connecting the locking dog with the I-beam adjacent the offset portion 10 of the chair when the rail may be readily tilted and removed from its engagement with the overlying flange 9 and the body of the chair 8 and it will be further noted that the I-beams 6 may be slid along the opening between the flanges 4 by merely removing its connecting bolts 5. It is to be further understood that while I have illustrated and described the preferred embodiment of the improvement, as it now appears to me, minor details of construction, within the scope of the following claims may be resorted to if desired.

Having thus described the invention, what I claim as new is:—

1. In a device for the purpose set forth, a rail tie constructed of a pair of hollow members, said members having their adjacent sides provided with longitudinally extending flanges cut away adjacent the ends of the members, I-beam sections between the flanges projecting within the cut away portions, means for securing the I-beams to the flanges, a rail chair having its ends bifurcated and engaging the vertical webs of the I-beams, and locking dogs secured to the webs of the I-beams and adapted to overlie the ends of the chair, substantially as described.

2. In a device of the class described, a tie constructed of a pair of hollow members, the said members having their adjacent sides open and the edges of these open portions provided with flanges, I-beam sections between the flanges, means for removably securing the I-beams between the flanges, chair plates for the tie, said chair plates each comprising a body member having an overlying lip adjacent one of its ends and a longitudinal offset adjacent its opposite end, the portions of the chair projecting from the offset and the overlying lip being centrally cut away, the webs of the I-beams engaging this cut away portion, and locking dogs provided with overlying lips removably connected with the webs of the I-beams, substantially as and for the purpose set forth.

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

JOSEPH KLEGA.

Witnesses:
I. B. THATCHER,
M. R. KLEGA.