

1,026,020.

J. T. CLARK.
RAILWAY TIE AND FASTENER.
APPLICATION FILED JULY 19, 1911.

Patented May 14, 1912.
2 SHEETS—SHEET 1.

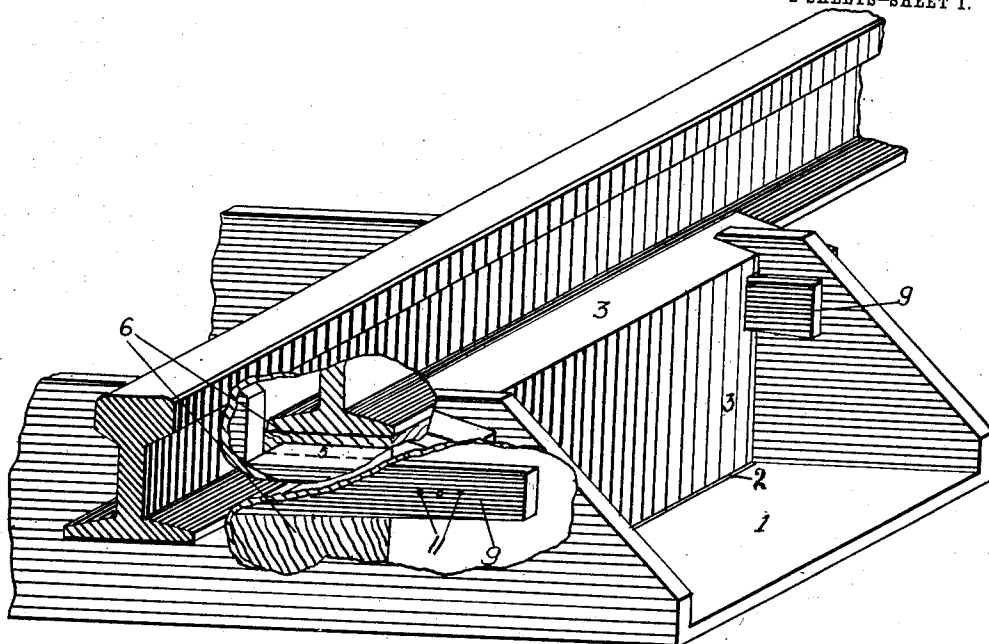


Fig. 1.

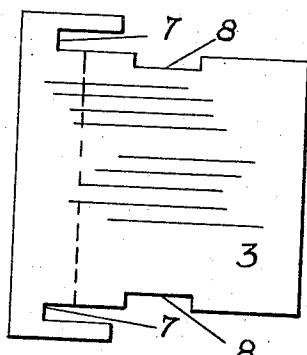


Fig. 2.

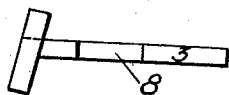


Fig. 3.

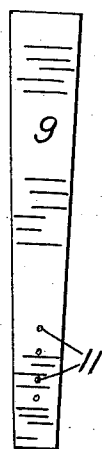


Fig. 4.

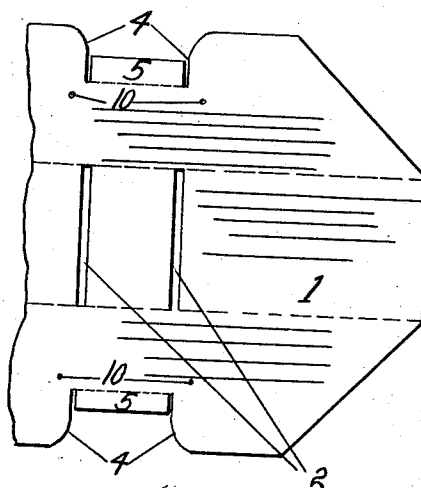


Fig. 5.

Witnesses
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2 SHEETS-SHEET 2.

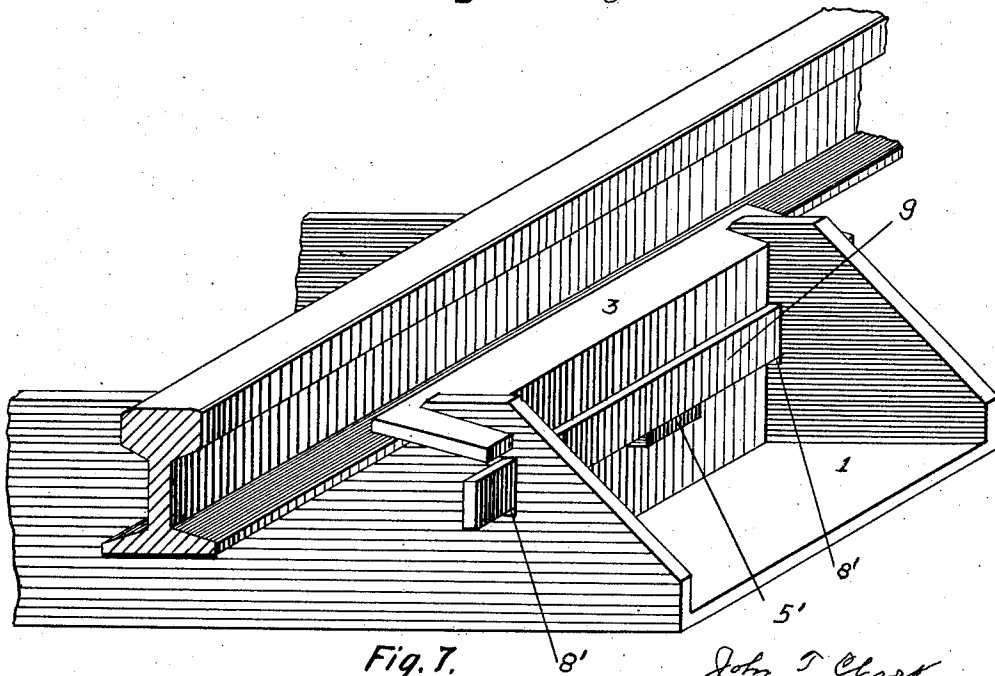
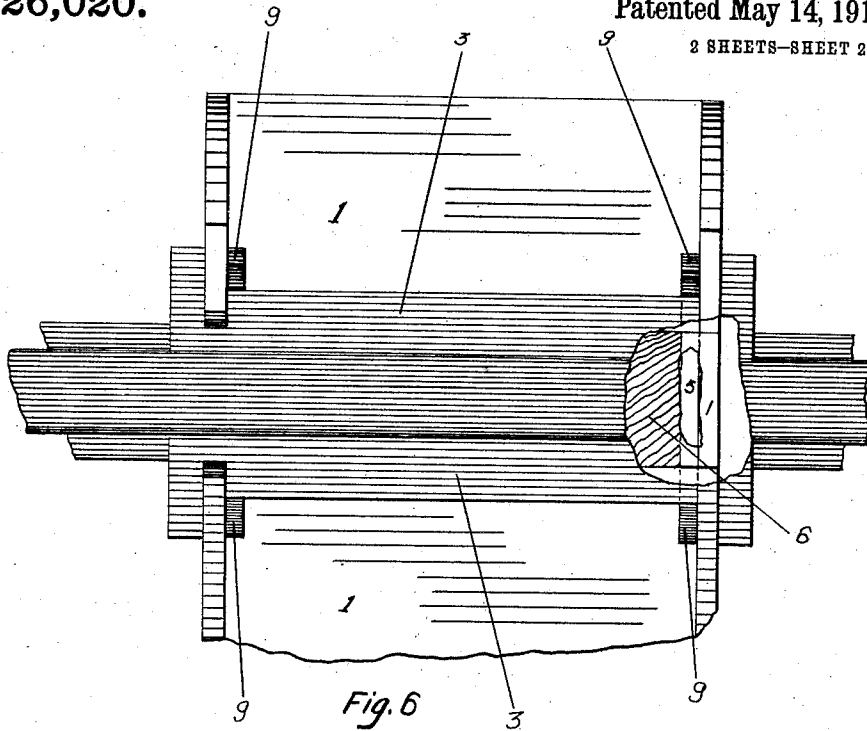


Fig. 7.

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UNITED STATES PATENT OFFICE.

JOHN T. CLARK, OF PROVO, UTAH.

RAILWAY-TIE AND FASTENER.

1,026,020.

Specification of Letters Patent.

Patented May 14, 1912.

Application filed July 19, 1911. Serial No. 639,354.

To all whom it may concern:

Be it known that I, JOHN T. CLARK, a citizen of the United States, residing at Provo, in the county of Utah and State of Utah, have invented certain new and useful Improvements in Railway-Ties and Fasteners, of which the following is a specification.

The purpose of my invention is to provide a metal railway tie and fastener therefor which is economical in construction, light in weight, easily placed and secured in position and which has the large bearing surface so much desired. These objects I accomplish with the device illustrated in the accompanying drawings in which similar letters of reference indicate like parts throughout the several figures, and which are hereinafter described in the specifications forming a part of this application.

Figure 1 is a perspective view of one end of the tie and other parts in place, portions thereof cut away. Fig. 2 is a plan of one of the clamps as cut from a sheet of metal and before it is bent into form. Fig. 3 is an elevation of one of the clamps. Fig. 4 is a plan view of one of the keys. Fig. 5 is a plan of one end of the tie as cut from a sheet of metal and before it is bent into form. Fig. 6 is a plan view of one end of the tie and parts in place with portions thereof cut away. Fig. 7 is a perspective of another form of constructing my tie and fastening means wherein the same principle is used.

My tie is made from a sheet of metal, cut in the form as shown in Fig. 5 and then bent on the dotted lines to form a channel 1. Said channel has slots 2 cut there-
through to receive the lower end of the clamps 3, and open cuts 4 in the edges to receive the rails. Portions of the sides of the channel 1 within the said open cuts 4 are bent inwardly to form flanges 5. Blocks of wood or fibrous material 6 are placed within each end portion of said channel 1, and are held therein by the rails placed thereon and by the clamps 3. The said blocks extend above the bottom of the said cuts 4 to prevent the rails from contacting with the sides of the said channel 1, and to supply the resiliency or cushion effect under the rails. The said clamps 3 are made from a sheet of metal of the thickness of the transverse cuts or slots 2, and in the form as shown in Fig. 2. This form

is then bent as shown in Fig. 3, and one of said clamps is then placed vertically transverse within said channel 1, in each of the said slots 2. Within each of said clamps are cut open slots 7, and the portion of the sides of said clamps without the said slots 7 are placed on the outside of the said channel to lock the sides thereof from spreading. Also in the sides of said clamps 3 are formed open cuts 8, provided therein to receive the keys 9. The upper portion of said clamps are bent at about the angle of the base flange of the rails and may be in contact with the said base flange of the rail or if desired insulating strips may be placed between the said flange of the rail and that part of the clamp for insulation. When the rails are laid in the said open cuts 4 and supported by the said blocks 6, the said clamps 3 are drawn down by the keys 9. One each of which is driven through one of the said cuts 8 and below the flange 5 to so cause said clamp to tightly hold the rail. In so being drawn down the portion of the said clamp 3 within the end of the open slots 7, contacts with and slides on the rounded portion of the said cuts 4 which produces a lateral as well as a downward direction to said clamps 3. When the said keys 9 are driven in a nail or small spike is driven through the holes 11 provided in the sides of the channel 1, and through one of the holes 11 in the keys 9 and the point is bent down to prevent unintentional withdrawal of the said keys and loosening of the rails. As shown in Fig. 7 the downward and lateral pull of the said keys may be given by having the said keys driven into vertical slots 8' cut in the sides of said channel 1, and having the flange 5' cut in the clamps. In this form or modification the keys are driven transversely instead of longitudinally in the tie.

Having thus described my invention I desire to secure by Letters Patent and claim:—

1. A railway tie consisting of a channel having transverse slots in the bottom and rail receiving cuts in the sides a portion of the rail receiving cuts being at an angle, cushion blocks in the end portions of said channel, rail clamps adapted to be vertically moved in said transverse slots in said channel and having key slots cut in the sides thereof, and keys adapted to engage the bot-

tom of said last mentioned slots and an inwardly extending portion of the sides of said channel.

2. A railway tie consisting of a channel having rail receiving slots in the sides thereof, inwardly extended flanges on said channel formed integral with the sides thereof and adjacent said rail receiving slots, clamps having open slots and cuts in the sides thereof, keys adapted to engage one side of said open cuts and said inwardly extended flanges, and means to secure said keys from unintentional removal.

3. A railway tie and fastener therefor consisting of a channel formed from a sheet of metal and having rail receiving cuts in the sides thereof and transverse slots in the bottom, metal clamps adapted to move vertically in said transverse slots and to contact with the flanges on the base of a rail, and having key slots in the sides thereof, and keys adapted to engage one side of said last mentioned slots and a portion of the sides of said channel.

4. A railway tie and fastener consisting of a channel formed from a sheet of metal

and having rail receiving cuts in the edges of said channel a portion of said cuts being at an angle, metal clamps having open slots in the sides thereof and adapted to fit transversely in said channel and to engage the base flange of the rail, cushion blocks in each end portion of said channel, and keys adapted to engage a portion of the sides of said channel and a portion of said clamps.

5. A rail way tie and fastener consisting of a channel having transverse slots in the bottom and rail receiving cuts in the sides, a cushion block in each end portion of said channel, L-shaped clamps having open slots in the sides thereof, and keys adapted to draw the bottom of said clamps through the said transverse slots by their engagement with said clamps and a portion of the sides of said channel.

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

JOHN T. CLARK.

Witnesses:

SAM RANEY,
G. B. BLAKELY.

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