Oct. 13, 1936. C. H. RIGGLE ET AL 2,057,593

STEEL CROSSTIE FOR RAILROADS

Filed May 21, 1935

Fig. 1.

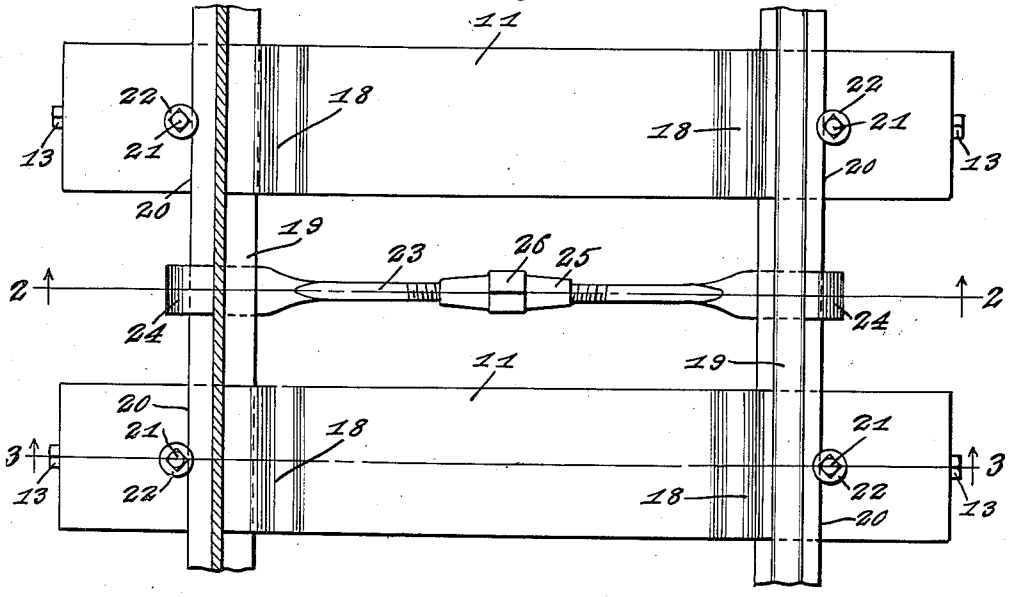


Fig. 2.

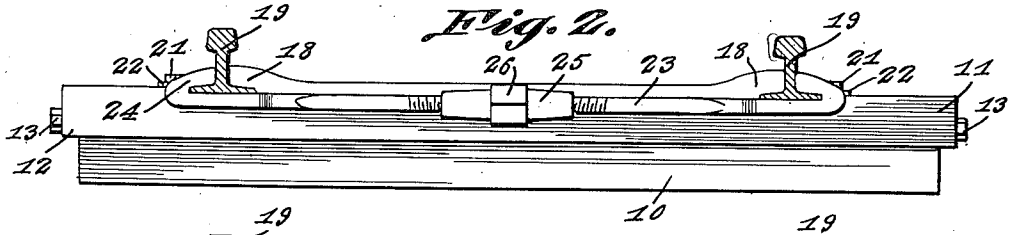


Fig. 3.

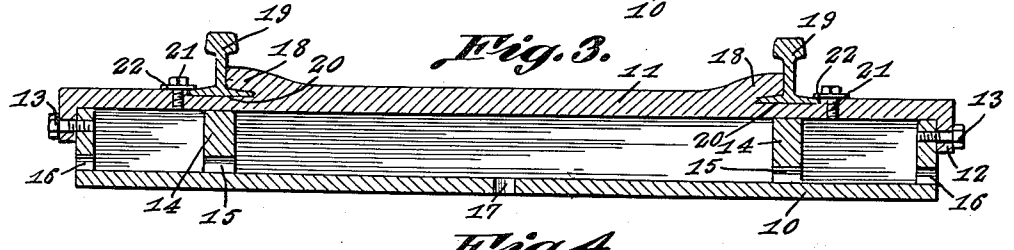
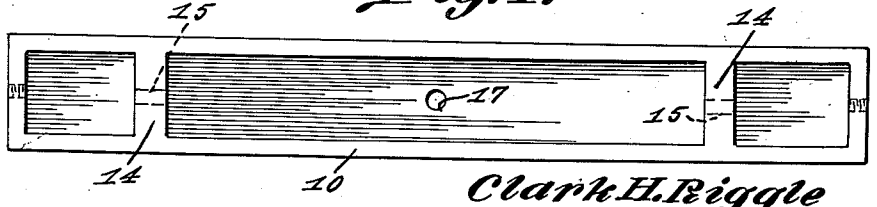


Fig. 4.



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STEEL CROSSTIE FOR RAILROADS

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Application May 21, 1935, Serial No. 22,596

1 Claim. (Cl. 238—55)

This invention relates to metal railway ties and has for an object to provide a tie of this character having a hollow body and a cover for the body, there being transverse webs in the body which underlie the rail supporting portions of the cover and take the weight of the rails.

A further object is to provide a sectional metal railway tie having a hollow body provided with transverse webs which divide the body into separate compartments and thus strengthen the body to resist distortion from weather conditions or various conditions of stress.

A further object is to provide a metal railway tie in which the cover is provided with a marginal flange that overlaps the body and is secured to the body, the flange reenforcing the side and end walls of the body to resist distortion.

A further object is to provide a metal railway tie in which the cover is provided with rail chairs and with screw bolts cooperating with the chairs to permit quick laying of the rails as well as removal of the rails when repairs are to be made.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming part of this specification,

Figure 1 is a plan view of a section of a track embodying metal railway ties constructed in accordance with the invention.

Figure 2 is a longitudinal sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a longitudinal sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a plan view of the hollow body with the cover removed to expose the webs.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, the metal railway tie is shown to comprise a hollow body 10 which is substantially rectangular in longitudinal and cross section and may be formed of steel, iron or other suitable metal. The hollow body 10 is closed by a cover 11 which is provided with a marginal flange 12 that overlaps the side and end walls of the body to reinforce the walls against distortion. Screw bolts 13 are passed through the flange and into the end walls of the body to removably secure the cover to the body.

A pair of transverse webs 14 are disposed in the hollow body underneath the rail supporting portions of the cover and these webs take the weight of the rails. Also the webs divide the body into terminal chambers and an intermediate chamber and thus strengthen the body to resist distortion by heat or cold or miscellaneous stresses. Drain openings 15 are formed in the webs at the bottom of the body, and additional drain openings 16 and 17 are formed respectively in the end walls and in the bottom of the body as shown in Figure 3.

The cover is thickened to provide rail chairs 18 which extend upwardly upon the inner faces of the webs of the track rails 19 nearly to the heads of the rails and project over the base flanges of the track rails on the inside of the rails. The rails preferably are seated in recesses 20 underneath the chairs and directly above the webs 14. Screw bolts 21 are threaded into the cover and are equipped with washers 22 which engage over the base flanges of the rails on the outside of the rails and coact with the associated rail chairs 18 in rigidly securing the rails to the cover 11.

A tie rod 23 is provided with hooks 24 to engage the base flanges of the rails between each two adjacent railway ties as shown in Figure 1, the tie rod being provided centrally with a turnbuckle 25 having wrench faces 26 for tightening the turnbuckle to cause the hooks to firmly grip the rails and prevent spreading of the rails.

From the above description it is thought that the construction and operation of my invention will be fully understood without further explanation.

What is claimed is:

A metal railway tie comprising a hollow body, a cover having a marginal flange overlapping the sides and ends of the body, screw bolts passed through the flange and into the body, the cover being thickened at the rail supporting portions to provide rail chairs adapted to extend over the base flange and upwardly along the web nearly to the head of each rail, transverse webs in the body underneath the rail supporting portions of the cover and of sufficient thickness to extend nearly to the longitudinal edges of the base flanges of the rails, said webs dividing the body into separate chambers, drains in the webs and in the body, and screw bolts on the cover coacting with the rail chairs to secure the rails to the cover above the webs of the hollow body.

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