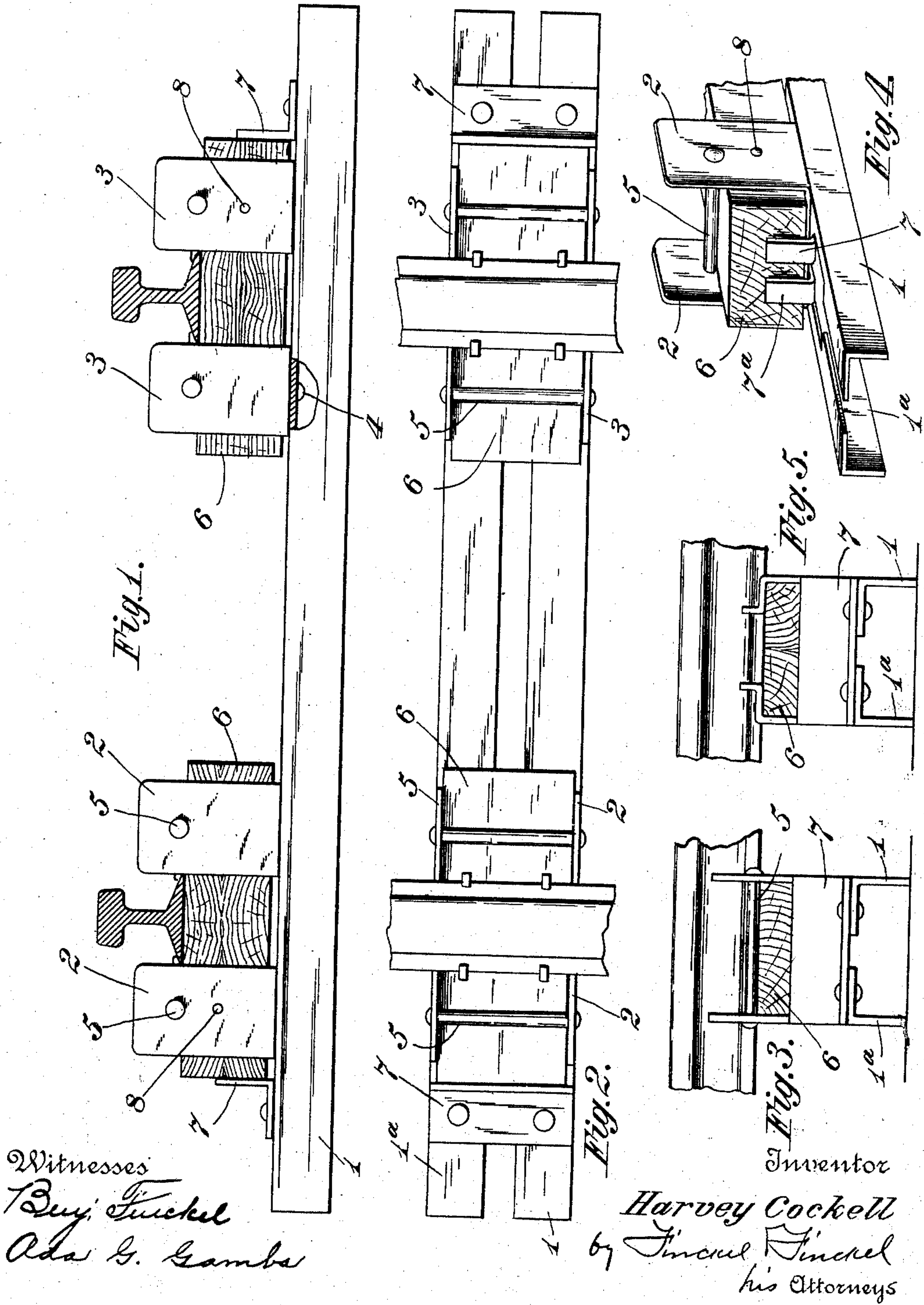


H. COCKELL.
RAILROAD TIE.

APPLICATION FILED JULY 23, 1908.

928,499.

Patented July 20, 1909.



UNITED STATES PATENT OFFICE.

HARVEY COCKELL, OF COLUMBUS, OHIO.

RAILROAD-TIE.

No. 928,499.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HARVEY COCKELL, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Railroad-Ties, of which the following is a specification.

The object of this invention is to provide a railroad tie formed largely of metal and of simple, economical and durable construction.

The invention is exemplified in the improved constructions hereinafter described and claimed.

In the accompanying drawings: Figure 1 is a view in side elevation showing a tie in accord with my invention. Fig. 2 is a top plan view of the same. Fig. 3 is an end view. Figs. 4 and 5 are details showing modifications.

In the views 1 and 1^a designate longitudinal angle bars of metal, said bars being arranged with their interior or hollow sides facing each other and a side or flange of each lying in the same plane but spaced slightly apart. Secured to the upper faces of the said sides or flanges that lie in the same plane by rivets 4 are two pairs of U-shaped metallic members 2, 2, and 3, 3, placed with their legs standing upward. The legs of each of the U-shaped members have, as shown in Figs. 1 to 3 inclusive, their upper ends tied together by long shouldered rivets 5. Each pair of U-shaped members constitutes a seat or socket to receive a short cushioning block 6 preferably of wood that is cut to fit snugly between the legs of the U-shaped members. The block is shown to be of less height than the length of the legs so as to permit the placing of the rails between the latter as shown.

To further secure the blocks from end strains short bracing pieces of angle bar 7 are riveted transversely to the longitudinal angle bars 1 and 1^a at the ends of blocks; but these braces can in many cases probably be omitted. The wooden blocks can be secured, if desired, by spikes 8 driven through the legs into the blocks.

Instead of short pieces 7 portions of the longitudinal angle bars can be notched and turned up to form abutments for the end of the block as shown at 7^a in Fig. 4. Further

the upper ends of the legs of the U-shaped members can be bent inward and upward, as seen in Fig. 5, and the shouldered rivets 5 omitted.

In practice the wooden blocks 6 can be saturated with creosote or other preservative of wood. Or they can be coated with paint or pitch or otherwise treated to prolong their life. The rails are spiked to the wooden blocks as usual in securing rails to ordinary wooden ties.

The metallic portions of the tie are preferably painted or dipped in material for coating them to prevent rusting. For the purpose of securing increased rigidity of the track the ties are, if desired, buried in the road bed or ballast up to a plane coinciding nearly with the upper surfaces of the wooden blocks.

From this construction it will be observed that, among other advantages, the tie is mainly of metal of standard and easily made forms; that no screw bolts are necessary; and that the rails are cushioned on wood, as is now believed to be the best practice, for the purpose of lessening noise.

When worn at the upper side the block can be easily taken out and replaced with a fresh side up. If desired, the blocks can be made square in cross section so that all four sides can be successively thus used, but with such a form of block it may be necessary to change the form of the seat or socket, which is merely a matter of mechanics. It is obvious that changes in the form and proportions of parts can be made without resort to inventive skill, and I therefore do not confine myself to the forms and proportions shown.

What I claim and desire to secure by Letters Patent is:

1. A railroad tie, comprising, in combination, a body portion composed of metallic angle bars, U-shaped members of sheet metal secured transversely to the body portion and forming seats with upwardly extending legs that stand edgewise to the rails, and non-metallic cushioning blocks in said seats, said blocks being of less height than the legs of the seats, substantially as described.

2. A railroad tie comprising, in combination, longitudinal metallic angle bars, U-shaped members secured transversely to said

angle bars with their legs standing upward, said members forming seats and means securing the upper ends of said legs together.

3. A railroad tie comprising, in combination, longitudinal metallic angle bars, metallic U-shaped members secured transversely to said angle bars and forming seats, non-metallic cushioning blocks in said seats, and angle bars secured transversely of the longitudinal bars and across the ends of the blocks.

4. A railroad tie, comprising, in combination, a longitudinal metallic tie body of angle bars, a pair of metallic U-shaped members secured transversely to said tie body at each end thereof and forming seats, the parts of each pair of U-shaped members being spaced apart to admit the rail between them, and non-metallic cushioning blocks in

said seats, said blocks being of less height than the legs of the U-shaped members, substantially as described.

5. A railroad tie, comprising, in combination, a tie body composed of separate longitudinal metallic angle bars, a pair of metallic U-shaped members secured transversely to said tie body at each of its ends and forming seats, the parts of each pair of U-shaped members being spaced apart to admit the rail between them, and non-metallic cushioning blocks in said seats, said blocks being of less height than the legs of the U-shaped members, substantially as described.

HARVEY COCKELL.

Witnesses:

O. P. COCKERILL,
ADA G. GAMBS.