(No Model.)

J. CONLEY.

FASTENING RAILS TO METAL SLEEPERS.

No. 332,384. Patented Dec. 15, 1885.

FIG. 1.

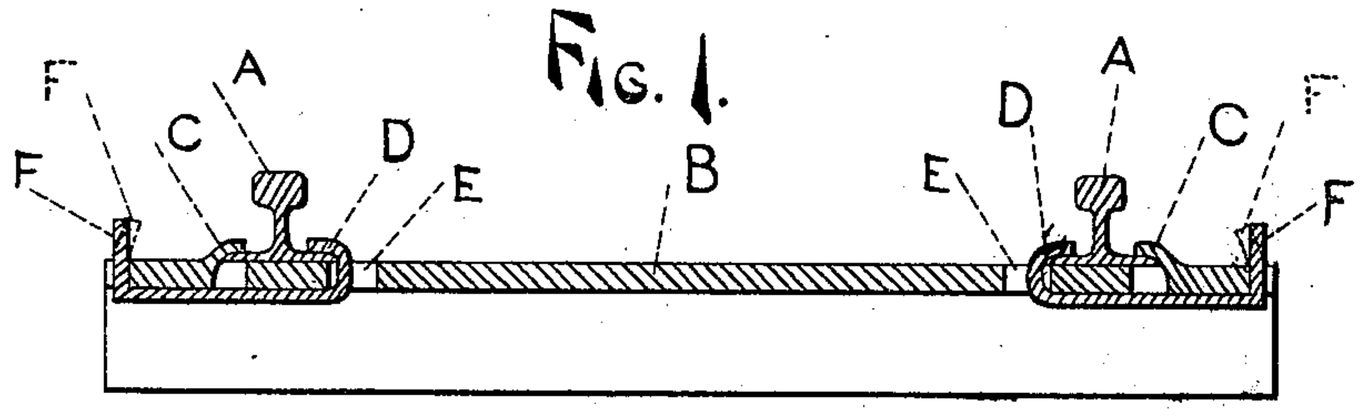


FIG. 2.

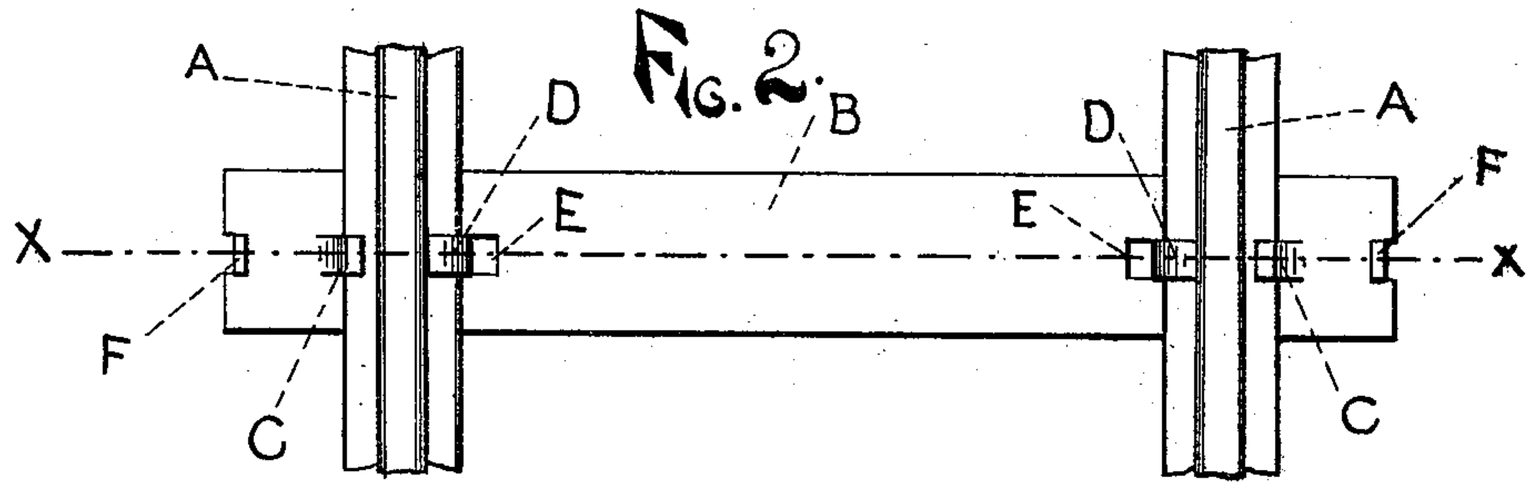
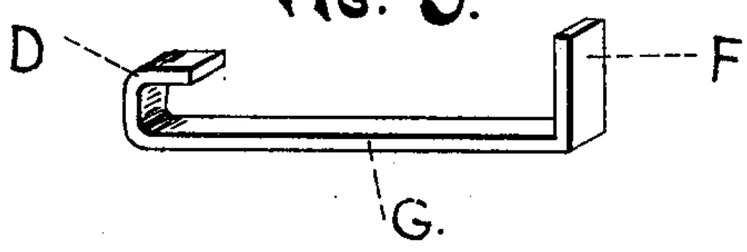


FIG. 3.



WITNESSES:

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FASTENING RAILS TO METAL SLEEPERS.

SPECIFICATION forming part of Letters Patent No. 332,384, dated December 15, 1885.

Application filed January 14, 1885. Renewed October 3, 1885. Serial No. 178,953. (No model.)

To all whom it may concern:

Be it known that I, JOHN CONLEY, of the city of Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful Improvement in Fastening Rails to Metal Sleepers, of which the following is a specification.

My invention relates to that class of fastenings in which the rail is secured by lugs or hooks which engage with the flanges of the rail and clamp it to the sleeper. Heretofore the rails, or the lugs on one or both sides of the rail, have been secured by means of bolts or rivets. Bolts are objectionable, because of their expense, and also because the nuts are liable to become loosened by passing trains. Bolts are also liable to become corroded, so as to be unfit for use, and are also troublesome to remove and replace. Rivets are still more difficult to remove and replace, and both are liable to break if drawn tight; also, one bolt or rivet will not secure the ends of both rails where joints occur.

The object of my invention is to provide a cheap and strong fastening that can easily be removed and replaced, and that will not be quickly injured by corrosion or loosened by the concussion of passing trains; also, to provide a broad fastening capable of securing the ends of both adjacent rails where joints occur.

The invention relates to that class of devices which consist in securing the rail to the sleeper by means of a clamp of suitable form, which is secured in place by the earth under the sleeper, or by slightly bending it with a hammer, or removed by the latter means, as will more fully appear in what follows.

In the accompanying drawings, in which similar letters indicate like parts, Figure 1 is a section on the line *x x* of Fig. 2; Fig. 2, a plan of a device embodying my invention, and Fig. 3 the hook or fastening in detail.

A represents the ordinary T-rail; B, a metal sleeper, consisting of a piece of ordinary channel-iron provided with two suitable hooks or lugs, C C, at suitable points, to secure the said rails on their outer sides; also having openings E E opposite the lugs C C, and nicks in the ends to receive the hook, shown in Fig. 3, which consists of a bar, G, of suitable dimensions, bent in hook form at one end, as shown, said bend of such dimensions as to firmly clamp the rail A to the sleeper B when all are placed in the position shown in Figs. 1 and 2. The said bar is bent at right angles near the other end, as shown at F, the distance between E and F being equal to the distance from the opening E to the end of the sleeper B.

The operation of my invention is as follows: The sleeper B being under the rails A A, the outer flanges of which are crowded firmly under the lugs C C, the hook, Fig. 3, is then placed in the position shown in Figs. 1 and 2 by passing it under the end of the sleeper B and inserting the end D in the opening E and drawing it outward as far as possible, then raising the outer end of the bar G until it is in contact with the under side of the sleeper B. Earth is then filled in under said sleeper, which will hold the hook in place. As further security, the end F can be bent inward, as shown by the dotted lines. This bending will also tighten the hook should it be too loose. At any time the hook can be removed by removing the earth from under the end of the sleeper B and striking on the end of the upright part F. The nicks in the end of the sleeper serve to keep the hook in line with the sleeper, and also enable me to use shorter hooks. The distance from the angle at F to the hook D being less than from the end of the bar at F, the upright part at F serves as an inclined plane to force the hook D upon the inner flange of the rail A. By placing the center of a sleeper directly under a joint in the rails the fastenings, being broad and directly opposite each other, will be found suitable for securing the ends of both adjacent rails simultaneously.

I am aware that rails are secured to metal sleepers by means of lugs and hooks. I do not claim these, broadly.

What I claim, and wish to secure, is—

1. The bar G, having the hook D and bend F, when used to secure rails to metal sleepers.

2. The bar G, having the hook D and bend F, in combination with the rail A and the sleeper B, having the lug C.

JOHN CONLEY.

Witnesses:
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E. H. MANLEY.