

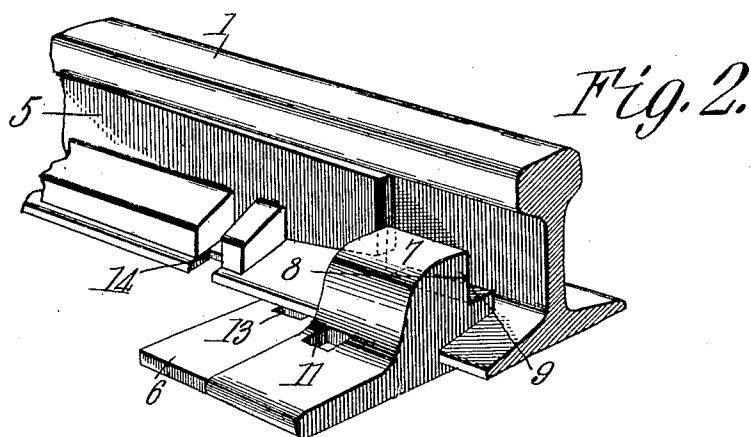
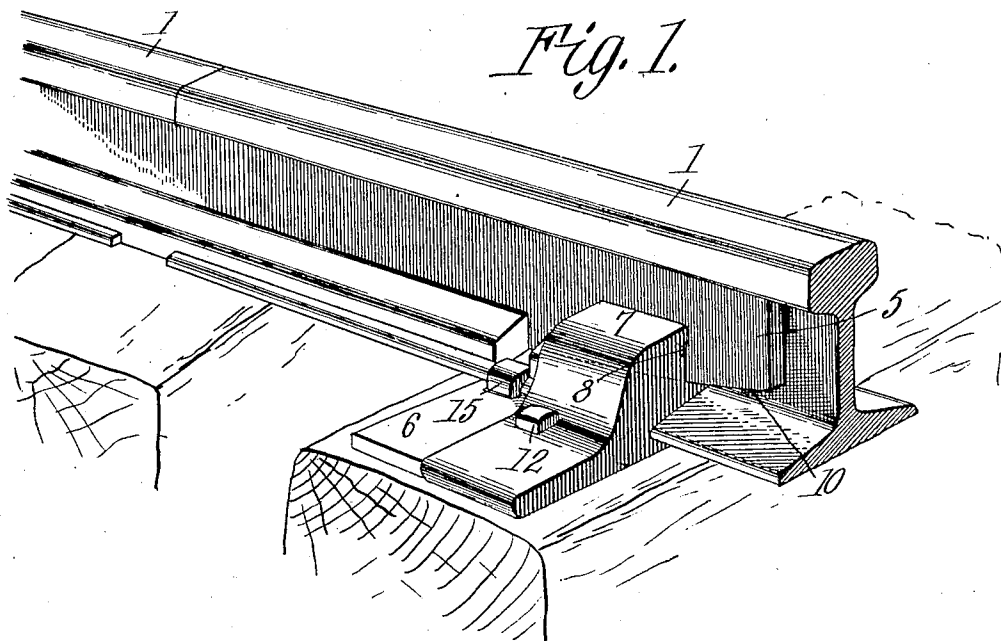
No. 878,202.

PATENTED FEB. 4, 1908.

J. A. GOSSARD.
RAIL CHAIR AND FASTENER.

APPLICATION FILED APR. 30, 1907.

2 SHEETS—SHEET 1.



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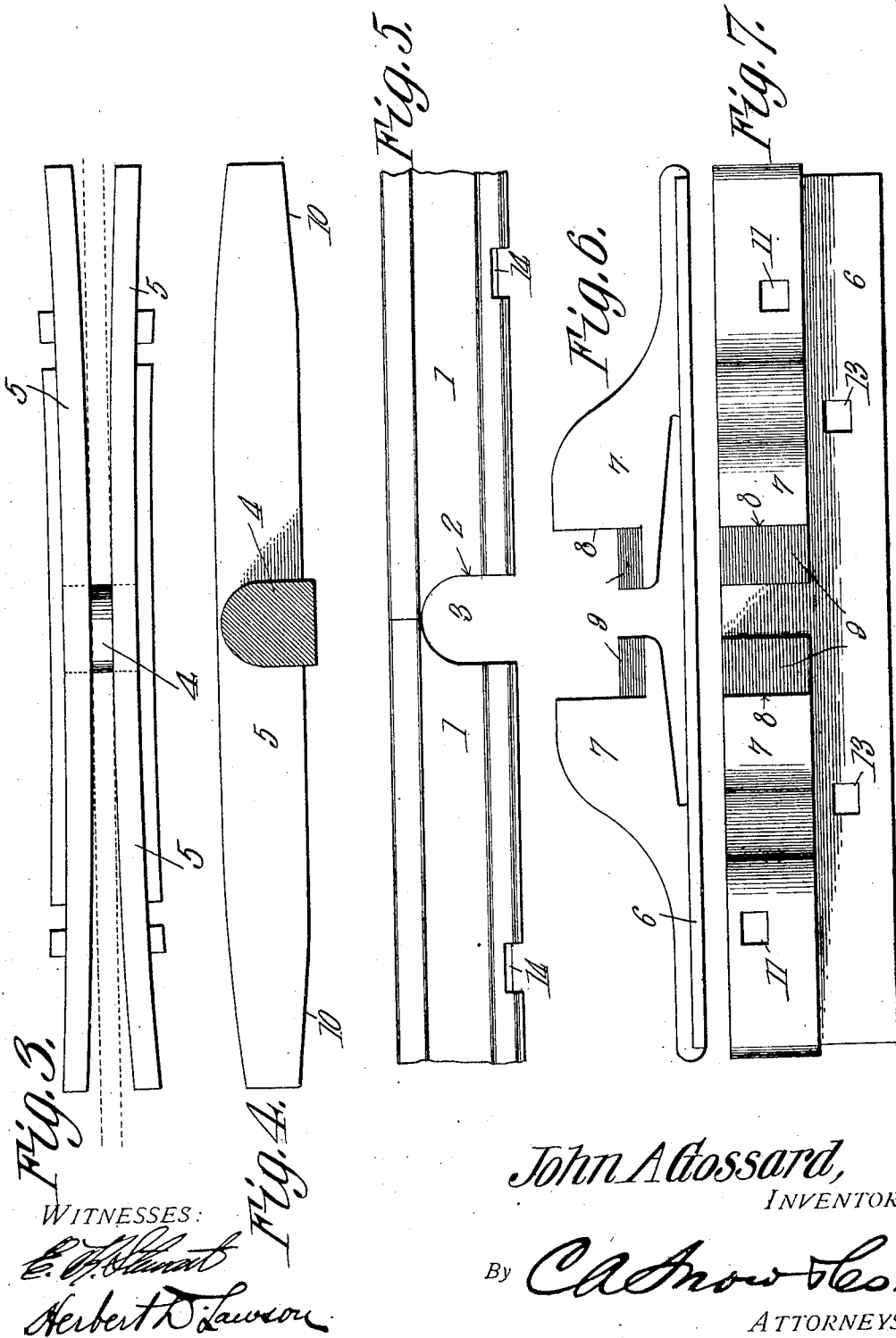
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UNITED STATES PATENT OFFICE.

JOHN AMOS GOSSARD, OF SOUTH SOLON, OHIO.

RAIL CHAIR AND FASTENER.

No. 878,202.

Specification of Letters Patent.

Patented Feb. 4, 1908.

Application filed April 30, 1907. Serial No. 371,100.

To all whom it may concern:

Be it known that I, JOHN A. GOSSARD, a citizen of the United States, residing at South Solon, in the county of Madison and State of Ohio, have invented a new and useful Rail Chair and Fastener, of which the following is a specification.

This invention relates to rail chairs and fasteners and its object is to provide a simple and efficient means whereby rails may be firmly supported and secured together without the necessity of utilizing bolts such as commonly employed.

A still further object is to provide a combined chair and fastener which serves to support the meeting ends of the rails and to prevent them from sagging while cars are passing over them.

A still further object is to provide a device of this character the parts of which cannot become accidentally displaced and which can be quickly placed in position.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a perspective view of a portion of the fastener, the same being shown secured upon a rail; Fig. 2 is a similar view showing the relative positions of the holding plates and the chair prior to the final assemblage of the parts; Fig. 3 is a top plan view of the holding device, the position of the rail webs therein being indicated by dotted lines; Fig. 4 is a central longitudinal section through the holding device; Fig. 5 is a side elevation of the adjoining ends of rails shaped for use with the holding device shown in Figs. 3 and 4; Fig. 6 is an elevation of the chair; and Fig. 7 is a plan view thereof.

Referring to the figures by characters of reference, 1, 1 designate two rails of the usual construction with the exception that the abutting ends of the rails have their web and flange portions cut away as shown at 2 so that when the two rails are brought together an arch-shaped opening 3 is formed therebetween. This opening is designed to receive a block 4 shaped to fit snugly within the opening and formed integral with opposite faces of the block are elongated holding plates 5 designed to extend along opposite

faces of the rails between the base flanges and the heads thereof. These plates preferably curve outwardly as shown in Fig. 3 under normal conditions but are designed to be sprung inward so as to clamp upon opposite faces of the rail webs.

The thickness of the block 4 between the plates 5 is about equal to the thickness of the rail webs. This block 4 projects downward from the plates 5 so as to fit snugly between the ends of the base flanges of the rails. Each rail is designed to rest upon a chair consisting of a base plate 6 having integral oppositely disposed jaws 7 extending therefrom and designed to extend over the base flanges of the rail. The inner or adjoining faces of these jaws are cut away for portions of their lengths so as to form recesses 8 which, when the jaws are in position upon a rail, constitute passages at the sides of the rail web for the purpose of receiving the ends of the plates 5. The bottoms of these recesses 8 are inclined as shown at 9 so as to correspond with the inclined portions 10 of the lower edges of the plates 5. An aperture 11 is formed in the outer portion of each jaw for the reception of a spike such as shown at 12 and another aperture 13 is formed in the base plate 6 and is designed, when the chair is properly assembled with the holding plate, to register with a recess 14 in the flange of the rail so as to receive a spike 15. This spike when positioned in this manner will lap the base flange of the rail and assist the jaws in holding the rail in position.

In assembling the parts described a chair such as herein described is first moved longitudinally along each of the rails to be secured after which a holding device such as shown in Figs. 3 and 4 is slipped longitudinally onto the web of one of the rails until the block 4 is seated within the end recesses 2. The other rail is then drawn longitudinally between the plates 5 of the holding device until its end recess assumes a position with the block 4 therein. Each chair is then driven along the rail from the position shown in Fig. 2 until the free ends of the plates 5 are lapped thereby. As the bottoms of the recesses 8 are inclined they will wedge beneath the inclined edges of the plates 5 and force said plates upward against the heads of the rails. When the chairs have been driven longitudinally as far as they will go the spikes 12 are inserted through them and driven into the ties. When the chairs are thus secured the

openings 13 therein will register with the recesses 14 and spikes 15 can then be driven into the tie through said recesses and openings so as to engage the rails and assist the jaws in fastening them upon the base plates. The block 4 of course prevents longitudinal displacement of the holding device and the jaws 7 by lapping the base flanges of the rails securely hold said rails against displacement upon the tie. Also in view of the fact that the jaws lap the end portions of the plate 5 it is obvious that said plates cannot get out of proper position as long as the chairs are secured beneath the rails. It will be seen that with this construction it is absolutely unnecessary to use bolts or similar fastening means such as ordinarily employed and the rails are not only securely held against longitudinal displacement by the wedging action of the jaws 7 and by the spikes 15 but they are also firmly supported at their ends so as to effectually prevent pounding by wheels passing thereover.

What is claimed is:

1. In a rail fastener the combination with rails having the adjoining ends of their webs and base flanges cut away to form a transverse opening; of a supporting block insertible into the opening and beneath the adjoining ends of the heads of the rails, oppositely extending holding plates integral with the block and disposed to bear upon opposite faces of the webs, and a rail chair disposed to bind said plates against the heads and webs of the rails.

2. In a rail fastener the combination with rails having the adjoining ends of their webs and base flanges cut away to form a transverse opening; of a supporting block insertible into the opening and beneath the adjoining ends of the heads of the rails, oppositely extending holding plates integral with the block and disposed to bear upon opposite faces of the webs, and rail engaging and supporting means for holding said plates against the webs and heads of the rails.

3. The combination with rails, and holding means extending between, and longitudinally upon opposite faces of the webs of the rails; of a chair comprising a base plate, and oppositely disposed jaws engaging the flanges of a rail upon the base plate, said jaws being disposed to bind the holding means against the web and head of a rail.

4. In a rail joint the combination with rails having the adjoining ends of their flanges and webs cut away to form a transverse opening; of holding means insertible into said opening and disposed to straddle

the webs of the rails, and a chair seat slidably mounted upon the base of each rail and disposed to lap and retain the holding means.

5. In a rail joint the combination with rails having the adjoining ends of their flanges and webs cut away to form a transverse opening; of holding means extending between and engaging the rails, said means comprising a block seated within said opening, and integral plates extending therefrom and disposed to straddle the ends of the webs, and a chair movable longitudinally upon the base of each rail and disposed to lap the plates to hold them against the rails.

6. The combination with rails having the adjoining ends of their flanges and webs cut away to form a transverse opening; of a holding device comprising a block insertible into said opening and plates integral with and extending from the block and disposed to straddle the ends of the webs, said plates having beveled portions, and a chair engaging each rail and disposed to wedge between the beveled portions and the base of the rail.

7. The combination with rails having the adjoining ends of their flanges and webs cut away to form a transverse opening; of a holding device comprising a block insertible into said opening and plates integral with and extending from the block and disposed to straddle the ends of the webs, said plates having beveled portions, and a chair upon each rail, said chair comprising a base plate, and oppositely disposed rail engaging jaws, each jaw being designed to wedge between the base of the rail and the beveled portion of the holding plate.

8. The combination with rails having the adjoining ends of their flanges and webs cut away to form a transverse opening; of a holding device comprising a block insertible into said opening and plates integral with and extending from the block and disposed to straddle the ends of the webs, said plates having beveled portions, and a chair for each rail comprising a base plate, and oppositely disposed rail engaging jaws having plate receiving recesses, the bottom of each recess being inclined to cooperate with the beveled portion of the plate within the recess.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN AMOS GOSSARD.

Witnesses:

GEO. W. GOSSARD,
JOHN W. HUFFMAN.