No. 820,545. PATENTED MAY 15, 1906.

A. BELLAMY.

RAIL CHAIR.

APPLICATION FILED JULY 24, 1905.

FIG. 1.

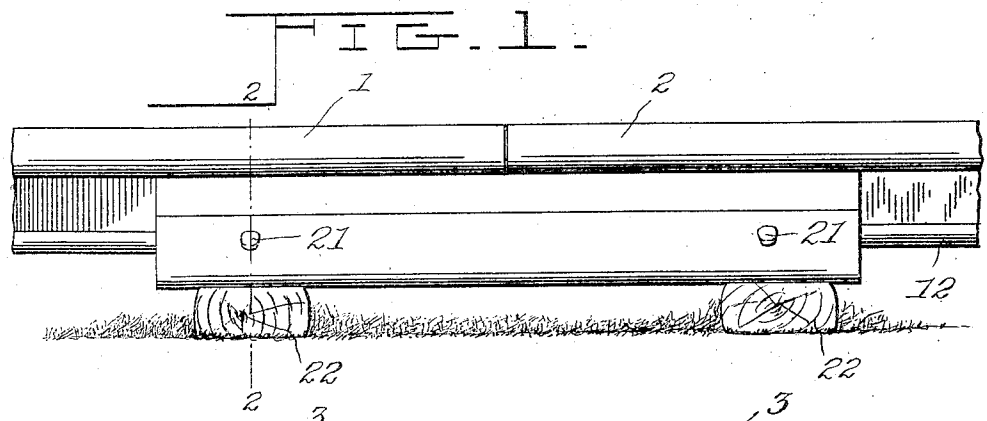


FIG. 2.

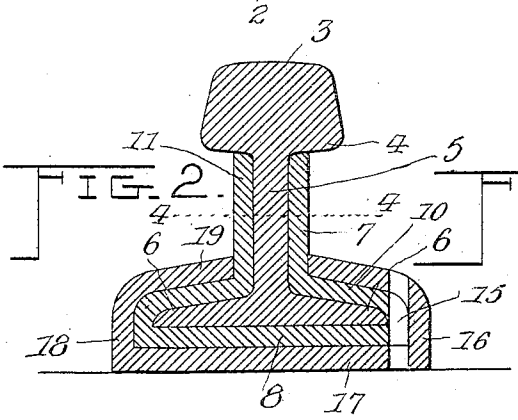


FIG. 3.

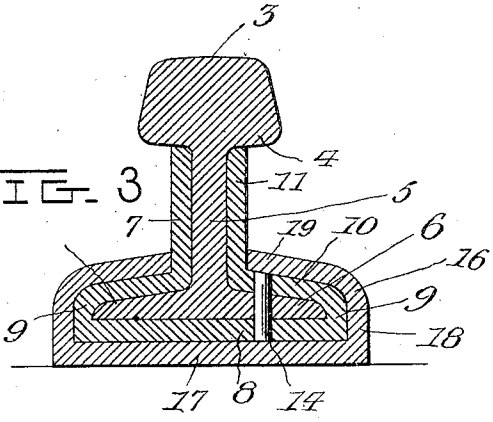
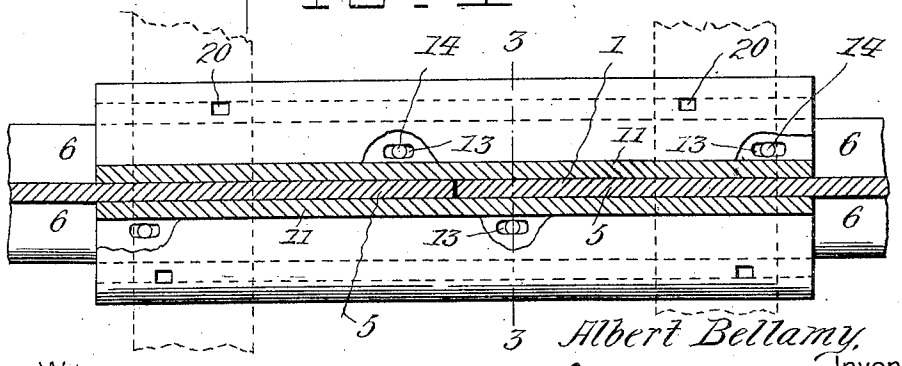


FIG. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

ALBERT BELLAMY, OF FORT WILLIAM, CANADA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-EIGHTH TO THOMAS P. KELLY, ONE-EIGHTH TO ALEXANDER SNELGROVE, ONE-EIGHTH TO PETER McQUAIG, ONE-SIXTEENTH TO WILLIAM A. MATHESON, AND ONE-SIXTEENTH TO ROBERT S. WORLD, ALL OF FORT WILLIAM, CANADA.

RAIL-CHAIR.

No. 820,545. Specification of Letters Patent. Patented May 15, 1906.

Application filed July 24, 1905. Serial No. 270,938.

To all whom it may concern:

Be it known that I, ALBERT BELLAMY, a subject of the King of England, residing at Fort William, in the county of Thunder Bay, in the Province of Ontario, Dominion of Canada, have invented certain new and useful Improvements in Rail-Chairs; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in railway-chairs designed to support the contiguous ends of railway-rails, and comprises the inner metallic casing formed of a single piece of metal which is shaped to conform to and inclose the web of a railway-rail and the laterally-extending flanges forming the base portion thereof, which is used in connection with an exterior shell, also of a single piece of metal surrounding the lower portion of the inner shell and adapted to be secured to the ties or sleepers to lock the same in position.

The object of the invention is to provide resilient supporting means for the contiguous ends of rails, which supporting means should be of sufficient length to rest upon adjacent sleepers and span the distance therebetween to support the meeting ends of rails between said sleepers.

The invention consists in the combination and arrangements of parts which are shown in the accompanying drawings, all as hereinafter more fully described, and particularly pointed out in the claims, it being understood that said drawings illustrate the preferred construction, which may be departed from in the form, proportion, and minor details of parts therein shown within the scope of the claims without sacrificing any of the advantages of the invention.

In the accompanying drawings, in which similar characters of reference indicate corresponding parts in all the views, Figure 1 is a fragmentary side elevational view of the meeting portion of two railway-rails supported in position and equipped with the present invention. Fig. 2 is a sectional view taken on line 2 2 of Fig. 1. Fig. 3 is a sectional view taken on line 3 3 of Fig. 4. Fig. 4 is a sectional view taken approximately on line 4 4 of Fig. 2 looking downwardly.

Referring to the parts, 1 and 2 indicate the railway-rails, which rails are provided with the usual treads 3, forming the upper surface of the balls 4 of said rails, there being webs 5 and laterally-extending base-flanges 6 integral with said webs.

The inner casing 7 is provided with a base portion 8, which rests under the base portion of the rail, said base portion forming a continuous metallic member, integral with which there are formed short vertical flanges 9 and top flanges 10, which with the base 8 serve as an envelop or inclosure for the base portion of the rail, and integral with the base portions 8, 9, and 10 there are vertically-disposed flanges 11, which rise from the portions 10 to a sufficient height, preferably, to rest immediately under the ball portion 4 of the railway-rail held within said casing, so that the inner casing forms an envelop and support for the rail from base to the ball portion thereof.

By preference the flanges 6 of the rail are provided with vertical perforations, and coincident perforations 13 in the inner casing provide means for the passage of securing-bolts 14, which pass through the perforations in the flange and said inner casing to secure the inner casing in position upon the rail. It will be evident that these coincident perforations (indicated by the reference-numeral 13 in Fig. 4 of the drawings) may be slightly elongated, if desired, to provide for expansion and contraction of the rails. In addition to the perforations 13 other perforations 15 are provided in the outer edge portions of the inner casing, as shown in Figs. 2 and 4, and it is evident that when the inner casing is formed from sheet metal, as it is preferred to form said casing, said perforations 15 should be slightly elongated in the blank, so as to provide the proper shape when the casing is bent into the position shown in the sectional views, Figs. 2 and 3.

Formed of a single piece of metal, either cast or formed from sheet metal and of a shape approximately that of the lower portion of the inner casing, is an outer casing or shell 16, which is provided with the base-plate 17,

vertical walls 18, and inwardly-beveled cover-walls 19. This outer casing 16 is provided with perforations 20, which by preference are arranged at different distances from the ends thereof on opposite sides, so that securing-spikes 21 may be passed through said perforations 20 and through the coincident perforations 15 in the edge portions of the inner casing and pass into the sleepers 22 in such manner and at such distances from the median line thereof as to prevent splitting said sleepers when the spikes 21 are driven therein. Thus it will be seen that a structure is provided which closely embraces the lower portion of the rail comprising the base and web and rises to the ball portion thereof, so as to form an approximately rigid yet slightly yielding support, which support is reinforced and strengthened by the outer casing 16, which may be secured to the sleepers in the usual manner, thus dispensing with the fish-plates commonly used to secure the meeting ends of railway-rails.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A railway-chair for supporting the contiguous ends of railway-rails, comprising an inner metallic casing having an interior shaped to contact closely with the bottom and top of the rail-flanges and having vertical flanges adapted to rise at each side of the web of a rail to the under side of the ball thereof, in combination with an outer shell adapted to wholly inclose the lower portion of said inner shell with the upper flanges of said outer shell extending near to the vertical flanges of said inner shell.

2. A railway-chair for supporting the contiguous ends of railway-rails, comprising an inner metallic casing formed of an integral member having an interior shaped to contact closely with the bottom and top of the rail-flanges and having vertical flanges adapted to rise at each side of the web of a rail to the under side of the ball thereof, in combination with an outer shell adapted to wholly inclose the lower portion of said inner shell with the upper flanges of said outer shell extending near to the vertical flanges of said inner shell.

3. A railway-chair for supporting the contiguous ends of railway-rails, comprising an inner metallic casing having an interior shaped to contact closely with the bottom and top of the rail-flanges and having vertical flanges adapted to rise at each side of the web of a rail, in combination with an outer shell adapted to wholly inclose the lower portion of said inner shell with the upper flanges of said outer shell extending near to the vertical flanges of said inner shell.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ALBERT BELLAMY.

Witnesses:
R. S. WORLD,
WILLIAM H. BELLAMY.