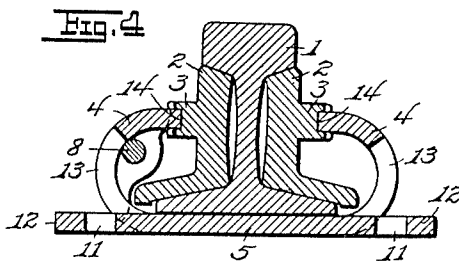
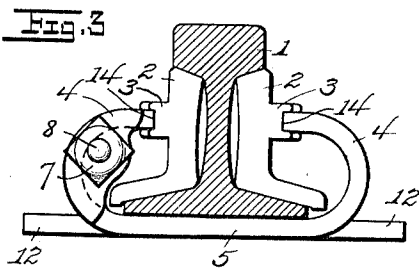
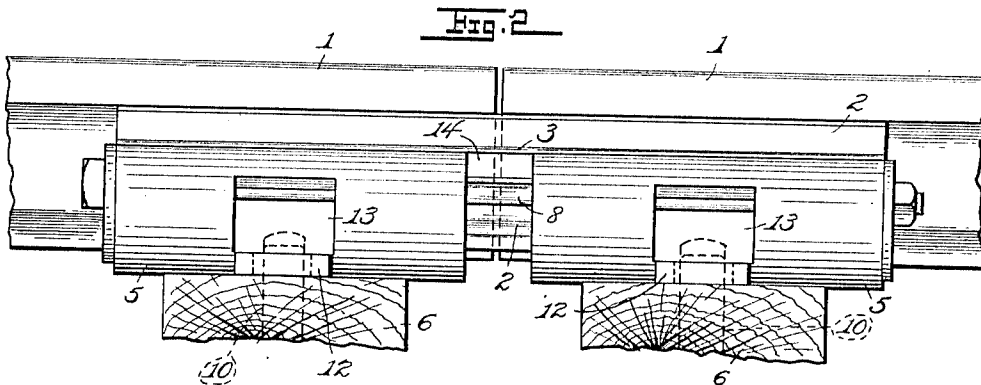
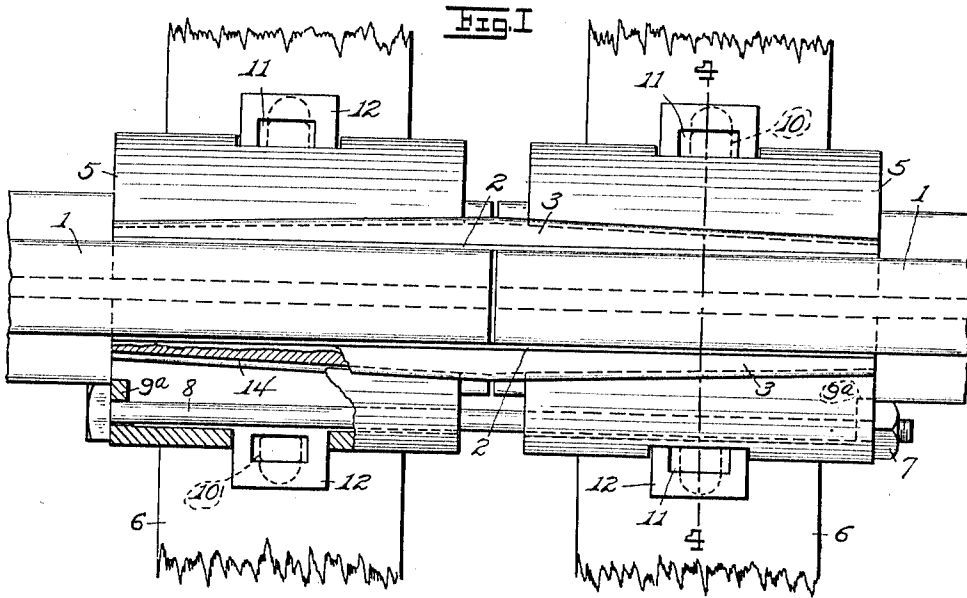


F. E. DILLON.
RAIL JOINT.
APPLICATION FILED JUNE 23, 1911.

1,064,058.

Patented June 10, 1913.



WITNESSES:
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RAIL-JOINT.

1,064,058.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed June 23, 1911. Serial No. 634,957.

To all whom it may concern:

Be it known that I, FRIEND E. DILLON, a citizen of the United States of America, and resident of Wheeling, county of Ohio, and State of West Virginia, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to improvements in rail-joints, and more particularly to a rail-chair and clamp.

The primary object of the invention is to provide a device for holding the adjacent ends of railway rails in fixed position without the employment of the usual bolts and nuts.

A further object is to provide a simple, strong and durable device of the character mentioned by means of which the rails are rigidly held in alinement and which may be adjusted from time to time, as occasion requires, to compensate for wear.

With these and other objects in view, the invention consists in the features of construction, arrangement of elements and combinations of parts which will hereinafter be exemplified, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a top plan view of the invention applied to railway rails at a joint, a portion at one end being broken away to more clearly illustrate details of construction; Fig. 2 is a side elevation of the same; Fig. 3 is an end view of the same; and Fig. 4 is a cross section on the line 4—4, Fig. 1.

Referring to said drawings, in which like designating characters distinguish like parts throughout the several views—1 1 indicate two railway rails to the adjacent ends of which the parts constituting the present invention are applied. Fitted against the web portions of the rails on opposite sides is a pair of splice-bars 2 the body-portions of which correspond to the fish-plates now commonly used in railway track-laying. Formed integral with each splice-bar on the outer face thereof is a heavy rib 3 whose outer face is inclined inward toward the opposite ends of the bar from a point substantially midway between said ends, as is clearly shown in Fig. 1. Received against the inclined faces of the ribs of the opposing splice-bars are the edges of the arcuately

curved, or bow-shaped portions 4 of a chair-like clamp 5, of substantially C-shape in end elevation, one such clamp being located on each side of the meeting point of the rails 1. The body portion of each clamp rests, preferably, upon a crosstie 6 and has the base of the rail seated thereon. The clamp is preferably formed of a plate of rolled steel having a suitable even thickness throughout and the bow-shaped portions, which are curved into regular, arcuate form, are consequently slightly resilient; and thus, while the splice-bars are effectually supported in position thereby, a slight cushioning flexibility is given which enables the parts to better withstand the shocks and vibration of road travel thereover.

The edges of the opposing bow-shaped portions of the clamp are inclined to correspond substantially with the outer faces of the ribs to be engaged thereby. In applying the clamps, the inner end of each is slipped up longitudinally until the edges of said bow-shaped portions adjacent the inner ends of the clamps assume bearing engagement with the outer faces of the ribs; then, said clamps are caused to approach each other, as by driving with a sledge, or by tightening a nut 7 on the end of a bolt 8 directed longitudinally through the opening between the clamp portion 4 and the lower part of the splice-bar and connecting the opposing clamps. In the preferred embodiment, the bolt 8 is supported in apertured lugs or plates 9 fitted against the outer ends of the opposing clamps; or, if the clamps are formed otherwise than by rolling, said lugs may be formed integral with the clamps, as shown at 9^a in Fig. 1. Thus, as said clamps approach each other, moving along the inclined faces of the ribs, the pressure exerted upon said splice-bars is increased, and, consequently the binding pressure of said splice-bars on the rails is increased. When adjusted to proper position, the clamps may be held fixed by means of the bolt 8, if such is employed for drawing on the clamps; or the adjusted position may be, and is, preferably, maintained by means of spikes 10 driven into the crossties 6 through apertures 11 provided in lateral lugs 12 struck up from the clamp and lying horizontally in the same plane as the body portion of the latter. When such struck up

lugs are employed, the bolt 8 may, or may not, be used, as desired. The striking up of the lugs leaves openings 13 which readily admit access of a spike to the apertures 11, 5 as is clearly shown in Fig. 4. For guiding the edges of the bow-shaped portions of the clamps and preventing them from moving off the inclined faces of the ribs, a longitudinal guide-channel 14 may be formed in 10 said faces.

From the foregoing it will be seen that I provide a rail clamp which wholly dispenses with the use of the usual bolts and nuts and which is simple in construction and efficient 15 for the purpose.

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

The combination with adjacent rail ends, 20 of a pair of splice-bars, an integral longitudinal rib formed on the outer face of each bar, the outer face of said rib being inclined

inward toward opposite ends from a substantially median point, a pair of adjustable clamps mounted in opposing relation, 25 one at each side of the meeting point of the rail ends, each clamp being formed of a resilient metal plate of even thickness throughout and comprising a chair portion and integral opposing arcuately curved joint- 30 cushioning portions, the terminal edges of the latter being inclined to correspond with the inclination of the rib-faces and being in bearing engagement with said faces, and apertured lugs struck up from said clamp 35 intermediate its ends and lying in the plane of the chair portion.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

FRIEND E. DILLON.

Witnesses:

H. E. DUNLAP,
W. R. WARREN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."