J. W. CLARK.

SPLICE JOINT AND BRACE FOR RAILWAY RAILS.

APPLICATION FILED SEPT. 7, 1910.

983,123. Patented Jan. 31, 1911.

FIG. 1.

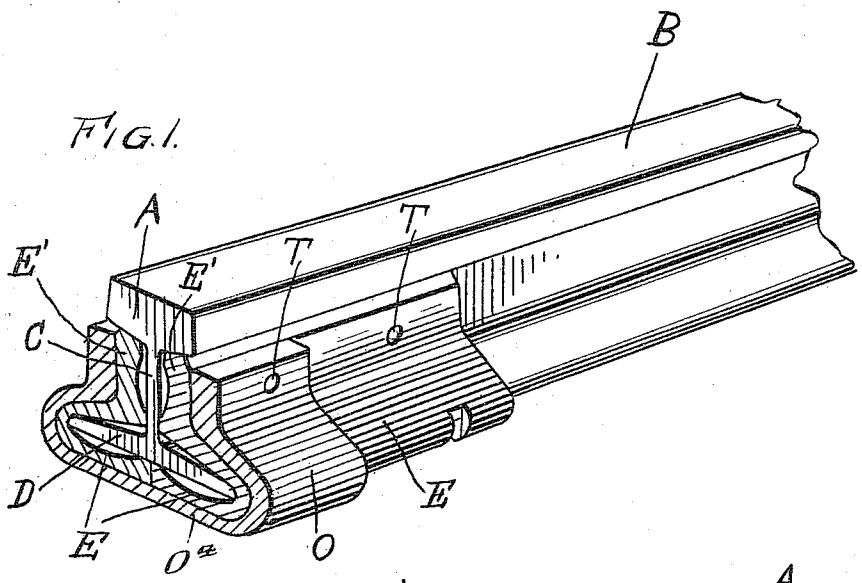


FIG. 2.

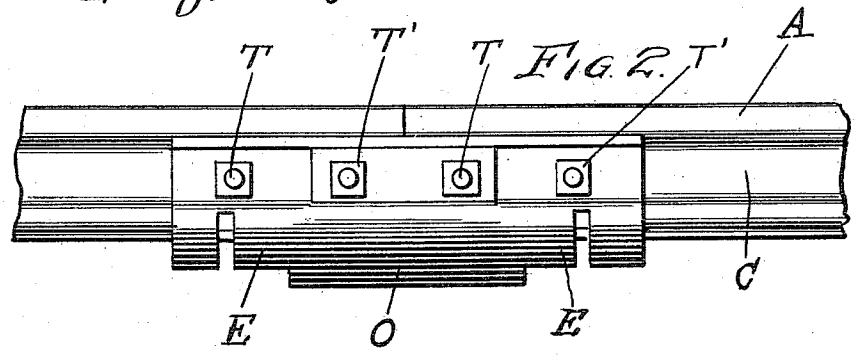
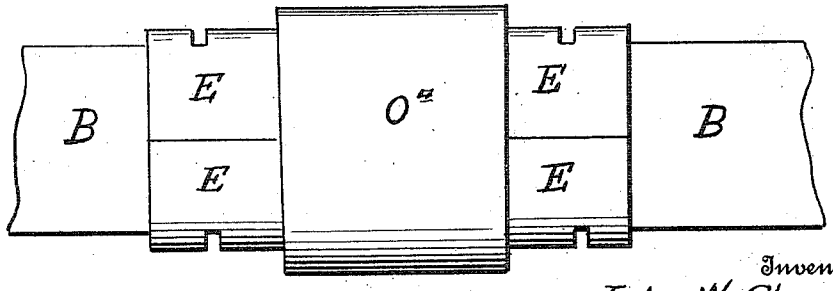


FIG. 3.



Witnesses

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SPLICE-JOINT AND BRACE FOR RAILWAY-RAILS.

983,123. Specification of Letters Patent. **Patented Jan. 31, 1911.**

Application filed September 7, 1910. Serial No. 580,840.

To all whom it may concern:

Be it known that I, JOHN W. CLARK, a citizen of the United States, residing at Wyoming, in the county of Kent and State of Delaware, have invented certain new and useful Improvements in Splice-Joints and Braces for Railway-Rails; and I do hereby declare the following to be 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in connections for railway rails, the object being to produce a simple and efficient device of this nature so constructed as to distribute the strain at the rail joint in such a manner that the rail may be made the same strength at the splice or joint as elsewhere.

More specifically the invention consists of a connecting chair and brace for the meeting ends of railway rails so arranged that the weight of a train passing over the connecting ends of the rails will distribute the strain against the underneath base or flange and the under edge of the tread surface of the rail.

The invention comprises various details of construction and combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claim.

My invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a sectional perspective view showing the connecting members engaging a rail. Fig. 2 is a side elevation showing the invention as applied to the two meeting ends of the rails, and Fig. 3 is a bottom plan view.

Reference now being had to the details of the drawings by letter, A designates the ordinary railway rail having a tread B, web C and bottom flanges D.

E, E designate chairs, each of which is provided with an upright portion E′, the upper edge of which is slightly inclined to conform to the bevel upon the under edge of the rail which it contacts. The inner face of said upright portion is concaved or dished and it will be noted that the horizontally disposed portion is also concaved upon its upper surface and the adjacent ends of the horizontally disposed portions of the chairs are in contact with each other and that their edges are wider where they form a contact surface with the rail immediately under the web portion thereof. The only surfaces of the chairs which contact with the flanges of the rail are, as shown clearly in Fig. 1 of the drawings, adjacent to the outer ends of the flanges, while the lower marginal edges of the concaved portions of the upright parts of the chairs contact with the web at points directly opposite. The upright portions of said chairs, which bear against the under edges of the head of the rail, and the webs of the rails are provided with registering apertures through which the bolts T pass, which bolts are provided with nuts T′ upon their threaded ends. It will be noted that the two chairs are of similar construction. A brace, designated by letter O having a flat portion O^4, is provided, the arms of the brace being adapted to pass about the chair and having apertures therein for the reception of the bolts T, while the flat portion of the brace passes underneath the chair, as shown clearly in the drawings. When the joint and rails are adjusted in place, the ties contact with the marginal edges of the clamping members O and are held in place by spikes driven through the notches shown in the chairs.

When a train passes over a track to which my improved connecting chairs are fastened, the pressure upon the rail is transmitted through the web to the supports H′, causing each chair, through the upright portions of the chair, to push against the under inclined edges of the head of the rail, thus serving to reinforce and prevent the head from yielding.

What I claim to be new is:—

An apparatus for connecting railway rails comprising chairs having upright portions with inclined edges bearing against the under surface of the tread of the rail, the inner faces of said upright portions being concaved, each chair provided with a hori-

zontally disposed portion extending underneath the flanges of the rails with their adjacent edges in contact and upwardly extending forming a support directly underneath the web of the rail, the upper surfaces of said horizontally disposed portions of the chairs being concaved and the upper and lower surfaces of the flanges free from contact with the chairs excepting at the outer edges of said flanges.

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

JOHN W. CLARK.

Witnesses:

ROBT. J. BELL,

W. G. YOCUM, JR.