No. 717,320. Patented Dec. 30, 1902.

W. E. BALL.

RAILWAY RAIL BRACE.

(Application filed Sept. 19, 1902.)

(No Model.)

Fig. 1.

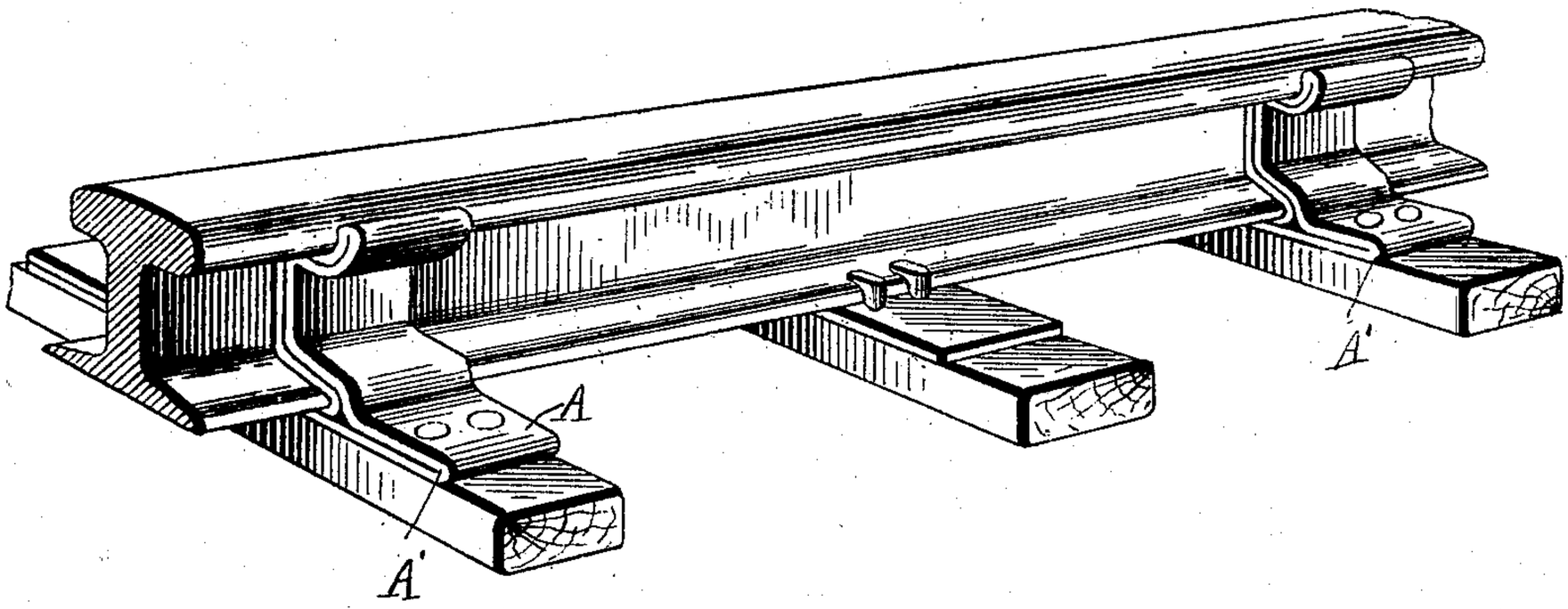


Fig. 2.

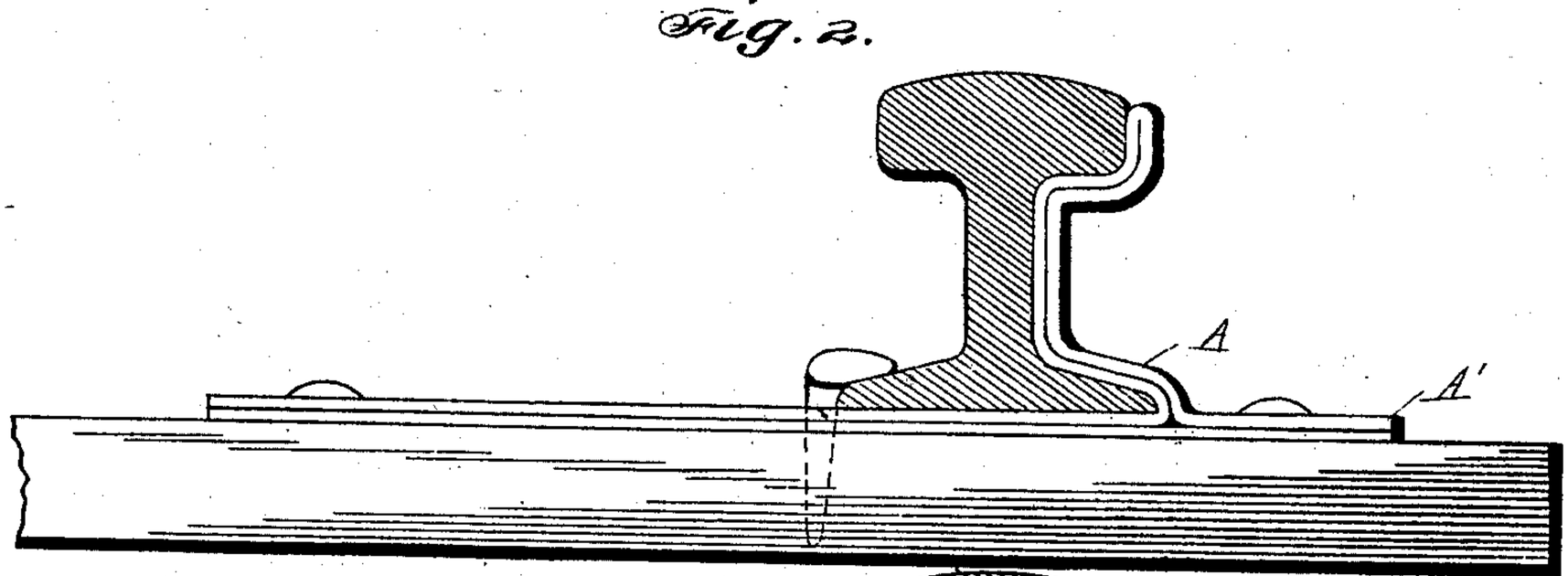
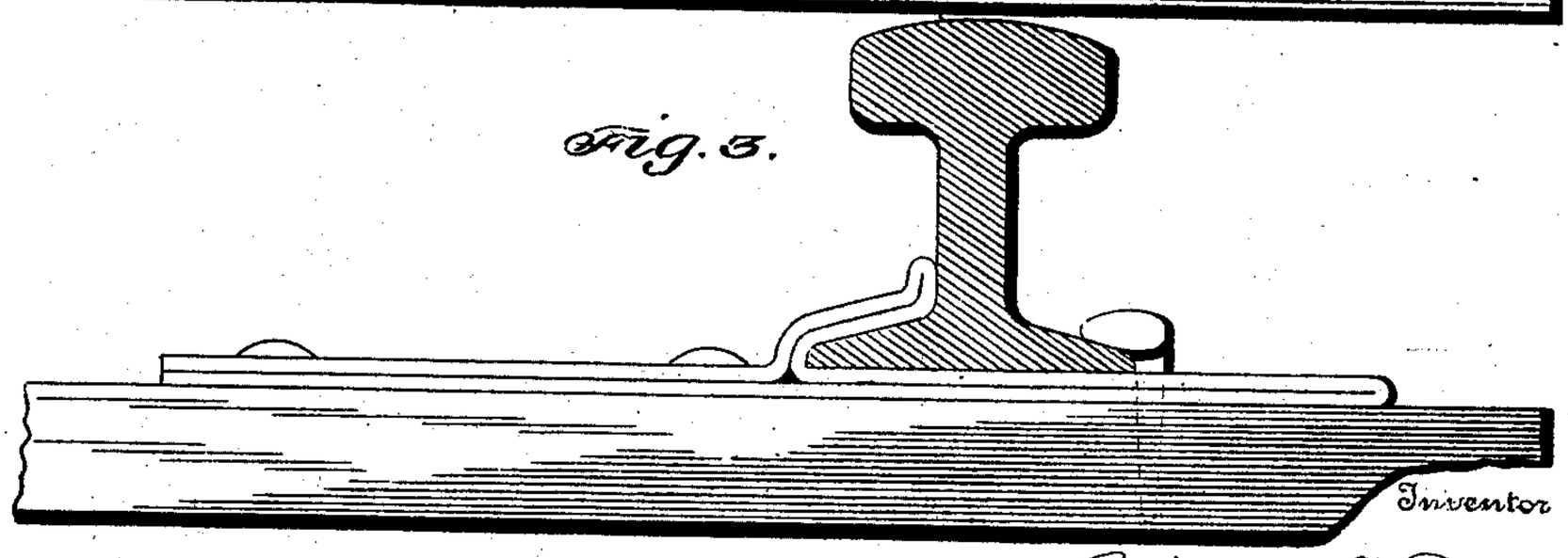


Fig. 3.



Witnesses
R. A. Boswell.
A. L. Hough

Inventor
William E. Ball
By Franklin H. Hough
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM E. BALL, OF ZANESVILLE, OHIO.

RAILWAY-RAIL BRACE.

SPECIFICATION forming part of Letters Patent No. 717,320, dated December 30, 1902.

Application filed September 19, 1902. Serial No. 124,089. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. BALL, a citizen of the United States, residing at Zanesville, in the county of Muskingum and State of Ohio, have invented certain new and useful Improvements in Railway-Rail Braces; and I do 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 of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in railway-rail braces; and it has for its object the provision of a simple, inexpensive, and efficient brace for railway-rails designed especially for preventing the spreading or turning of the rails, which frequently occurs, especially in the passing of heavily-loaded trains upon long curves.

The essential object of the present invention is to provide a railway-rail-clamping device which is adapted for use in bracing the rail in such a manner as to prevent either the inward or outer movement of the rail, also prevents the turning of the same.

To these ends and to such others as the invention may pertain the same consists, further, in the novel construction, combination, and adaptation of parts, as will be hereinafter more fully described and then specifically defined in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings—

Figure 1 is a perspective view of a railway-rail having the form of brace which I employ to prevent the outward spreading of the rail. Fig. 2 is a cross-sectional view through the rail, showing the brace in side elevation. Fig. 3 is a cross-sectional view through a rail, showing a slightly-modified form of brace.

Reference now being had to the details of the drawings by letter, A designates a brace which I employ in preventing the outward spread of the rails and comprises a single piece of metal which is bent upon itself at A′, and the two sections thus bent upon themselves are preferably bolted or riveted together. A portion of the brace is thence bent upon itself in an upright position and is bent about and adapted to conform to the flange, the web, and the side of the tread of the rail, and one portion of the brace is bent and adapted to form a support for the rail and is bolted or otherwise securely fastened to the tie.

In Fig. 3 I have shown a slight modification in which the upturned portion of the brace, forming a portion thereof which is bent upon itself, is turned over the flange of the rail and is turned only a slight distance up against the web of the rail. If preferred, the form shown in Fig. 1 may be used for preventing the spread of the rail outward and fastened to every alternate tie, while the form shown in Fig. 3 may be used on the intermediate ties and with its bent portion engaging the inner flange of the rails, thereby preventing the inner spread of the rail.

From the foregoing it will be observed that a brace for railways made in accordance with my invention will securely hold the rail in place, preventing the same from movement in either direction sidewise, and by reason of the peculiar manner of bending the brace upon itself and holding the two parts thus bent together and bolting the same to the tie the brace will be firmly held in engagement with the rail.

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

A brace for railway-rails, comprising a single piece of metal bent upon itself, the two portions thus bent riveted together in parallel relation, and horizontally disposed, the upper of said horizontal portions having upturned portions which are bent upon themselves, and bent to conform to and in contact with the face of the flange, web and tread of the rails, thus forming a brace, said rail adapted to rest upon the two horizontal portions of the brace, and means for holding the brace against the rail, as set forth.

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

WILLIAM E. BALL.

Witnesses:

A. A. GEORGE,

J. H. WHARTENBY.