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PATENTED AUG. 15, 1905.

E. F. WALSH & W. C. THOMPSON.

RAILWAY RAIL JOINT.

APPLICATION FILED MAY 29, 1905.

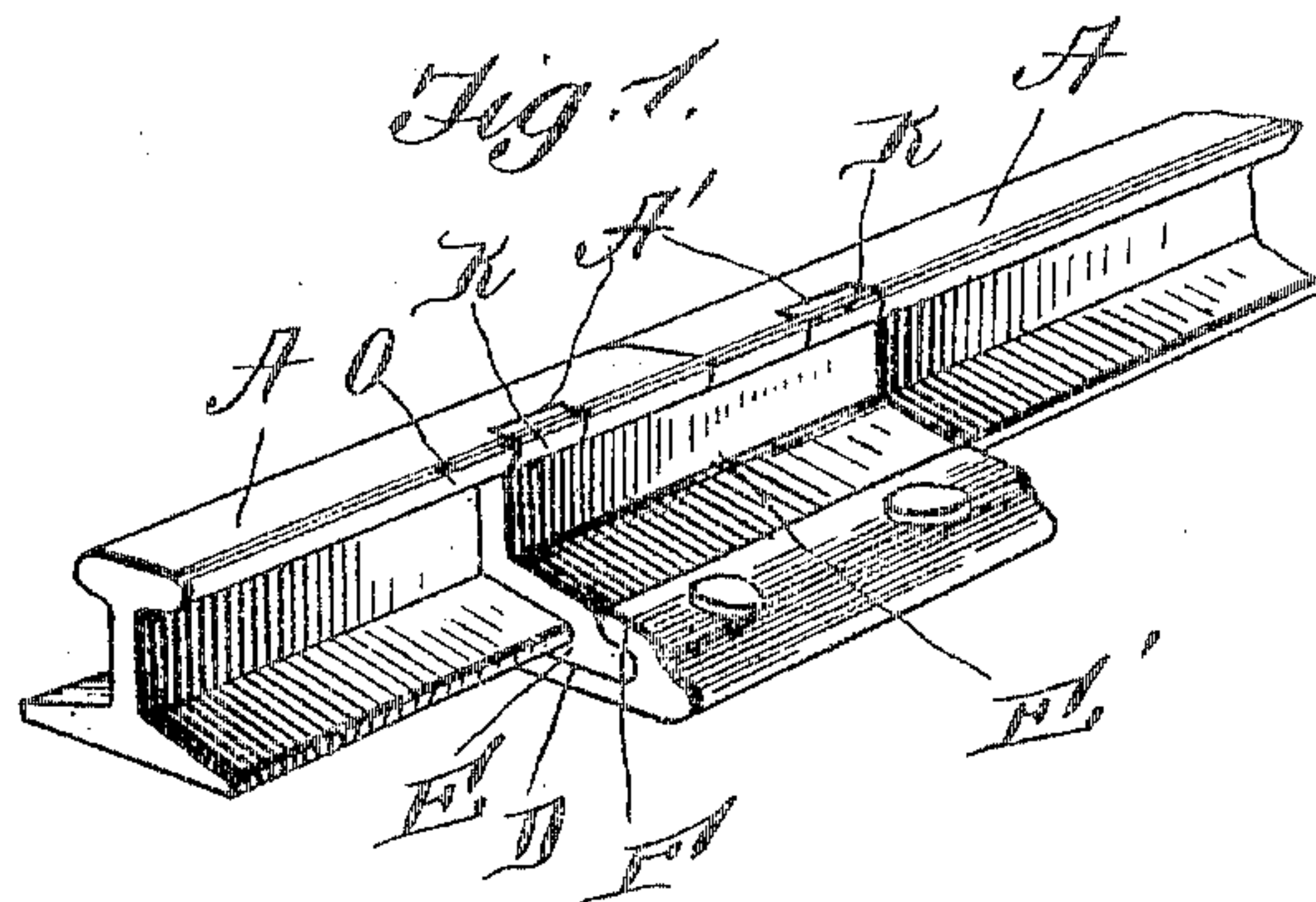


Fig. 2.

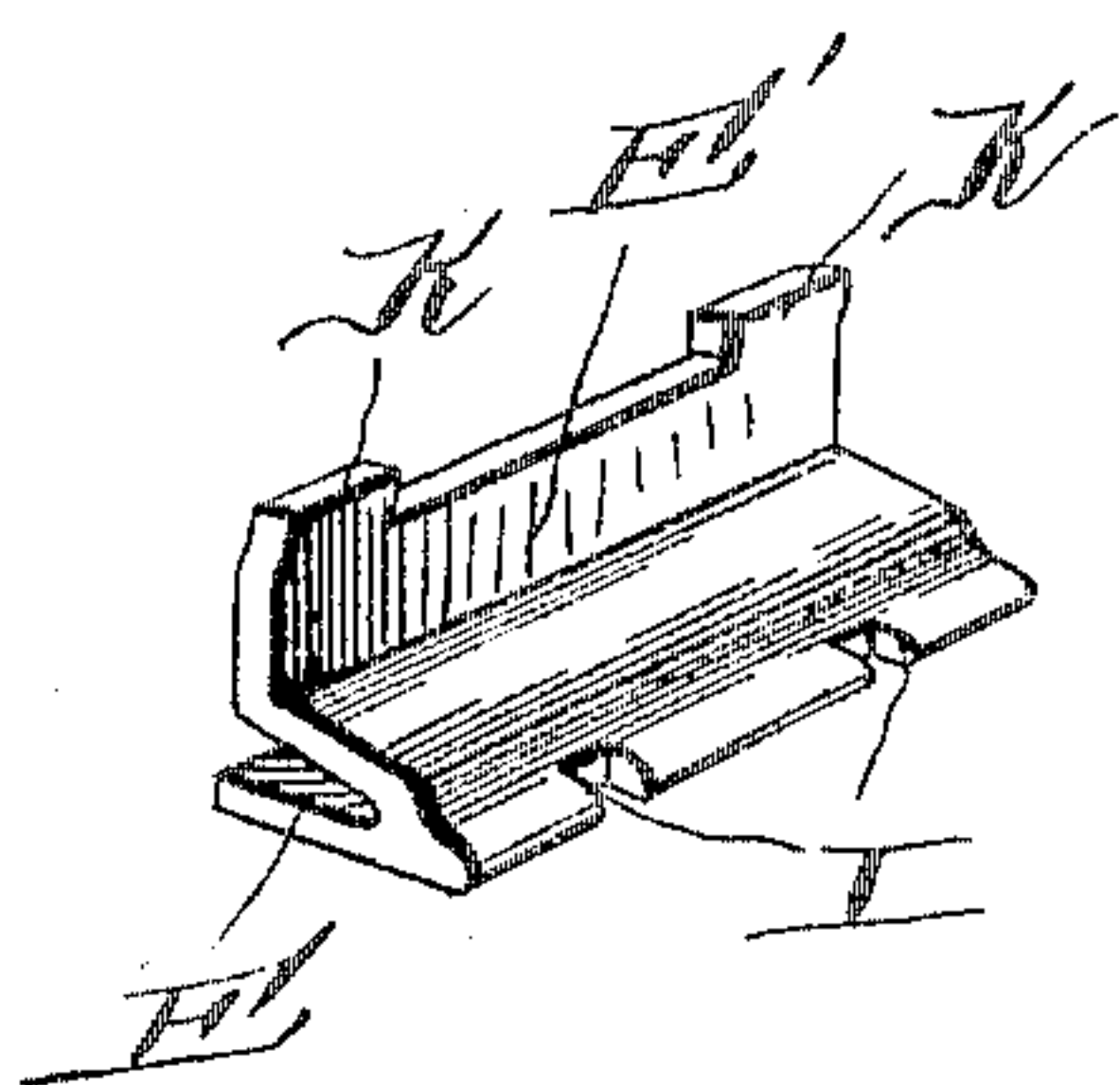


Fig. 3.

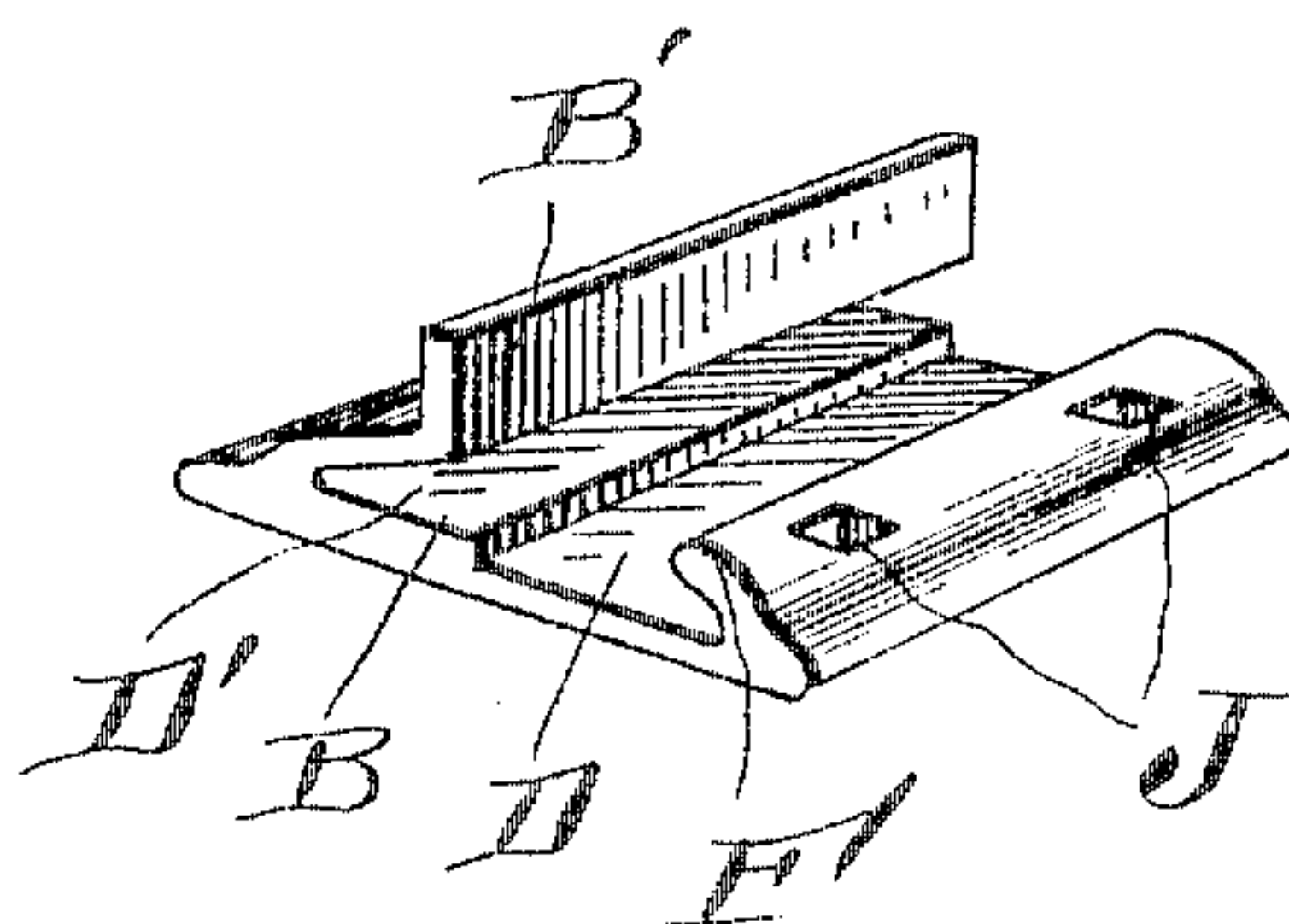
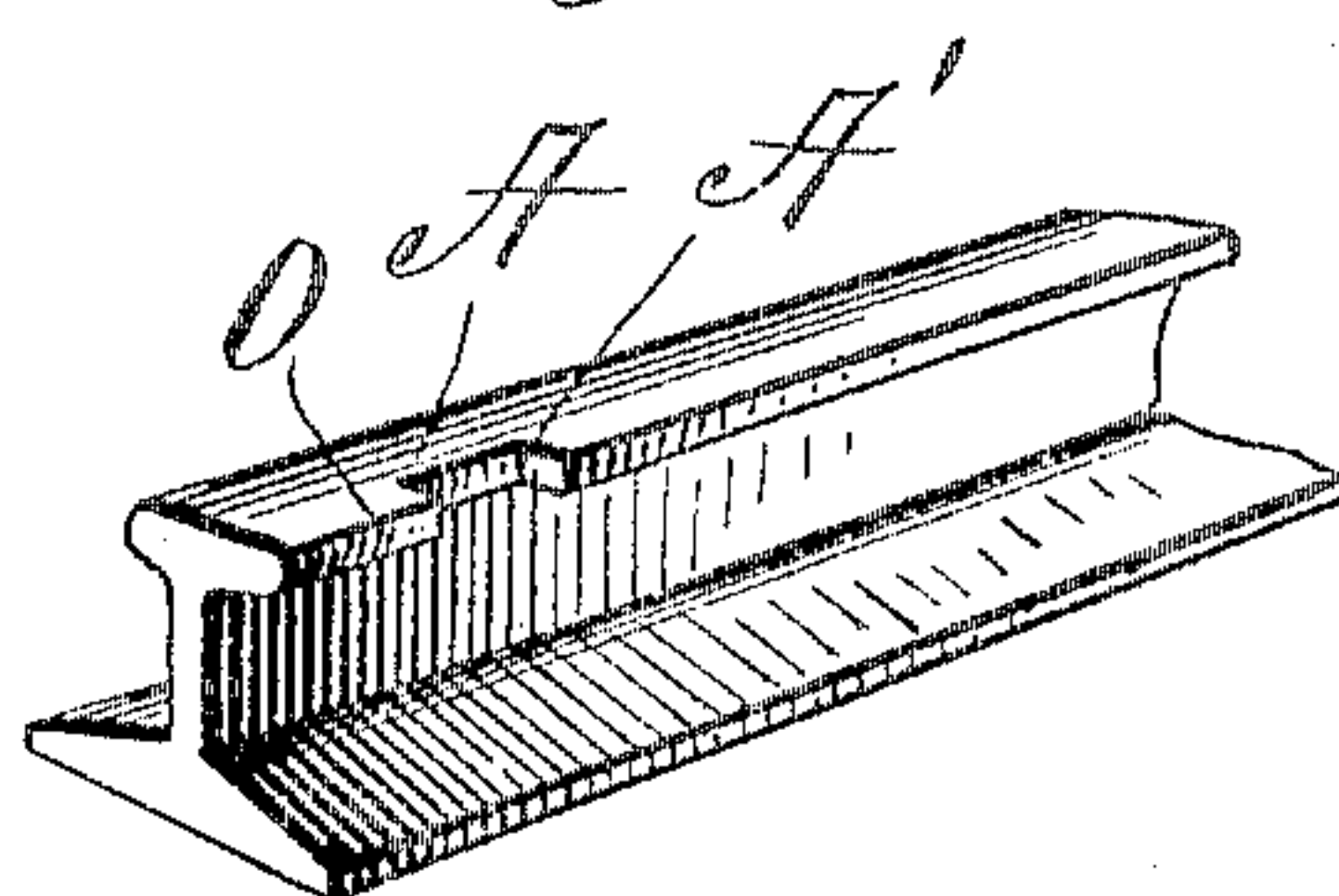


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## RAILWAY-RAIL JOINT.

No. 797,475.

Specification of Letters Patent.

Patented Aug. 15, 1905.

Application filed May 29, 1905. Serial No. 262,894.

*To all whom it may concern:*

Be it known that we, EDWARD F. WALSH and WILLIAM C. THOMPSON, citizens of the United States, residing at Gracemont, in the county of Caddo and Territory of Oklahoma, have invented certain new and useful Improvements in Railway-Rail Joints; and we 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 of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in railway-rail joints; and the object of the invention is to produce a simple and efficient means for securely holding the meeting ends of rails without the employment of bolts passing through the webs of the rails.

More specifically, the invention comprises joint-chairs, one of which is provided with arms adapted to engage recesses formed in the edges of the treads of the rails and securely fastened to ties.

The invention consists, further, in various details of construction and in combinations and arrangements of parts, as will be hereinafter fully described and then specifically defined in the appended claims.

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

Figure 1 is a perspective view of our invention, showing the same as applied to the meeting ends of rails. Fig. 2 is a detail view of a joint-chair. Fig. 3 is a view of the plate holding said chair; and Fig. 4 is a detail view of the end of a rail, showing the recess formed in the edge of the tread.

Reference now being had to the details of the drawings by letter, A A designate railway-rails which are of the usual construction, with the exception of the recesses A', one of which is formed in each edge of a tread adjacent to its end.

B designates a plate having a longitudinal flange B', adapted to bear against the upper surface of one flange of a rail and a portion of the web of the rail upon one side thereof. Said plate has a recessed portion D adapted

to receive the horizontally-disposed portion E of a joint-chair E', the upper surface of said horizontally-disposed portion E being adapted to be flush with the bottom D' of the plate B when inserted in place in the manner shown in the drawings. Said recess D has an overhanging flange F adapted to hold the chair E' in place. Projecting from the upper longitudinal edge of the chair E' are the lugs K, which are adapted to engage the recesses A', formed in the outer edges of the treads of the rails O adjacent to the meeting ends thereof and in the manner shown in the drawings. Said chair has registering holes I in the marginal edges thereof, through which spikes are passed into the ties upon which the rails are supported, and the plate B also has apertures J in one edge thereof, through which the same spikes may be passed, whereby the two plates held in the locking relation shown may be securely held to the ties.

It will be observed that the ends of the lugs K are slightly below the upper tread-surfaces of the rails and being upon the outer edge thereof will not in any way interfere or come in contact with the wheels of rolling-stock.

By the provision of the apparatus shown and described it will be observed that a simple and efficient means for holding railway-rails securely is provided without the use of bolts passing through and weakening the webs of the rails.

While we have shown a particular detailed construction of railway-rail joint illustrating our invention, it will be understood that we may vary the details of construction of the same, if desired, without in any way departing from the spirit of the invention.

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

1. A railway-rail joint comprising, in combination with rails having each a recess through one edge of the tread of the rail, a joint-chair having lugs extending through said recesses, and means for fastening said chair to a tie, as set forth.

2. A railway-rail joint comprising, in combination with rails having each a recess through one edge of the tread of the rail, a joint-chair having lugs extending through said recesses, a plate having a longitudinal flange adapted to contact with one face of the web of a rail



and in which plate said chair is adapted to be seated, and means for holding said chair and plate to a railway-tie, as set forth.

3. A railway-rail joint comprising, in combination with rails having each a recess through one edge of the tread of the rail, a joint-chair having lugs extending through said recesses, a plate having a longitudinal flange adapted to engage one face of the tread of a rail and a recess in its bottom adapted to receive said chair upon which and said plate a rail is adapted to rest, and means for fastening the plate and chair to railway-ties, as set forth.

4. A railway-rail joint comprising, in combination with rails having each a recess through one edge of the tread of the rail, a joint-chair having lugs extending through said recesses,

a plate having a longitudinal flange adapted to engage one face of the tread of a rail and a recess in its bottom adapted to receive said chair upon which and said plate a rail is adapted to rest, one of the longitudinal edges of said plate adjacent to the recess therein being inwardly turned and adapted to engage the edge of said chair, and spikes passing through registering apertures in said chair and plate, as set forth.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

EDWARD F. WALSH.

WILLIAM C. THOMPSON.

Witnesses:

CHARLEY D. SAVAGE,  
WILLIAM S. NIXON.