

No. 773,611.

PATENTED NOV. 1, 1904.

J. M. WALKER.
RAIL JOINT.

APPLICATION FILED APR. 19, 1904.

NO MODEL.

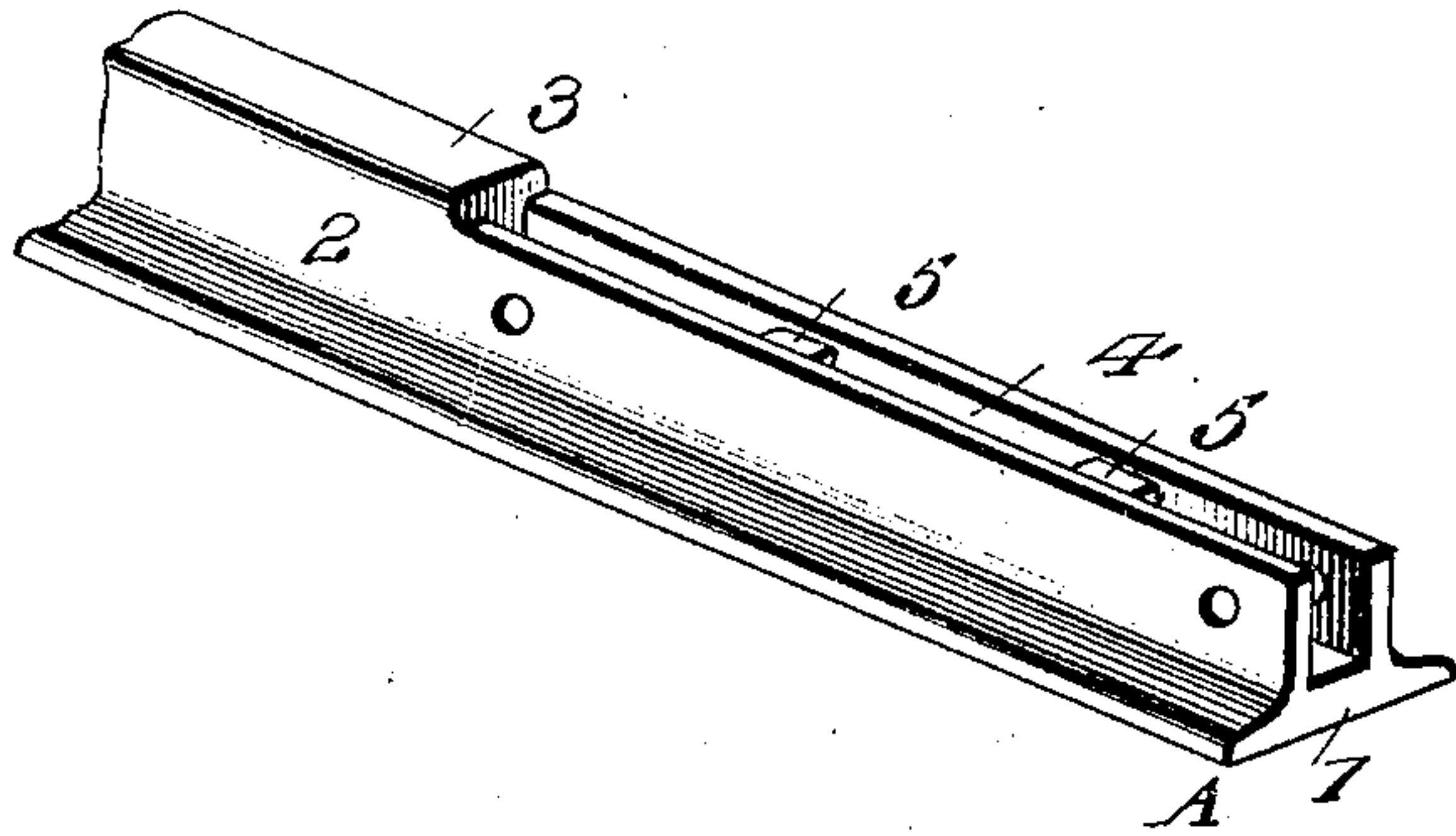


Fig. 1.

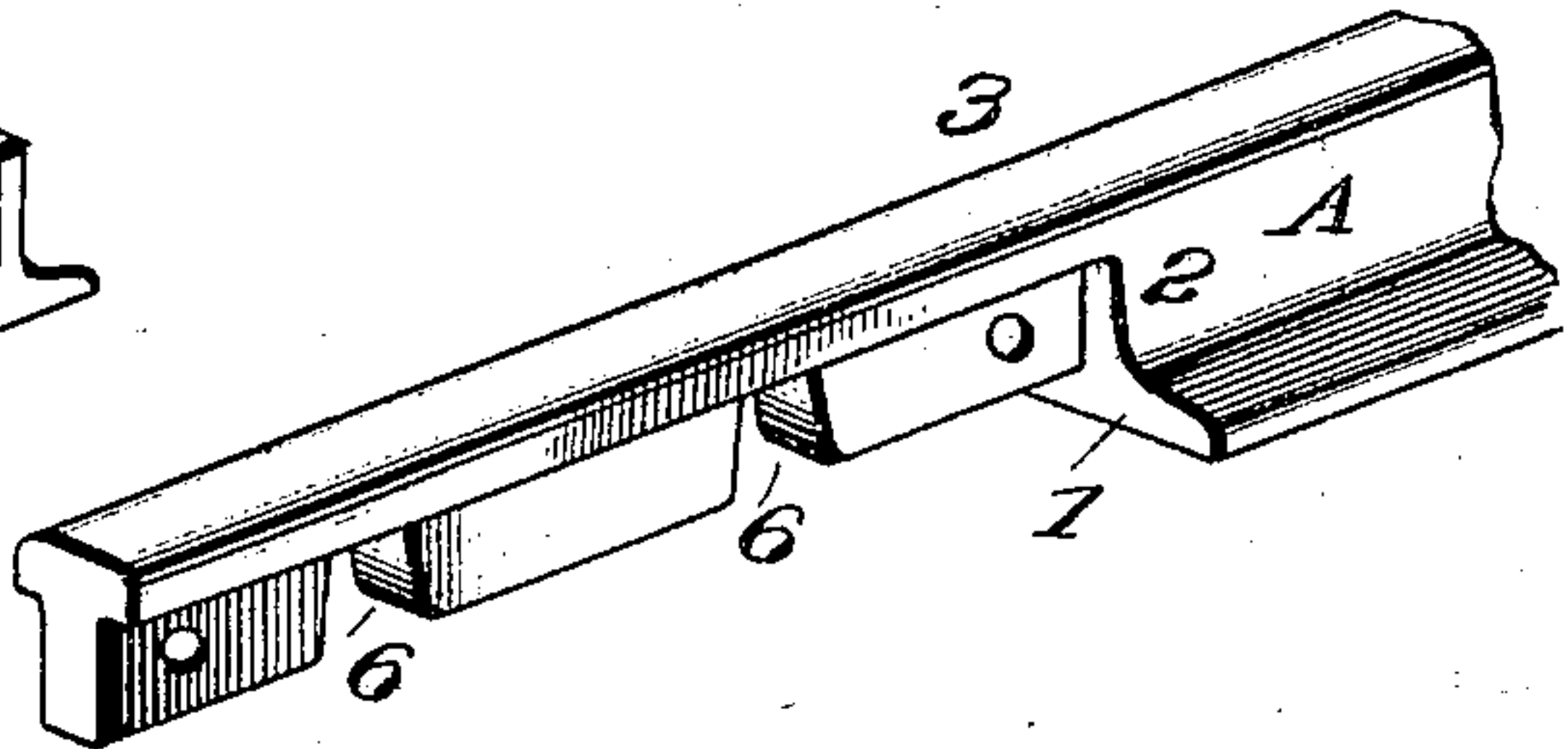


Fig. 2.

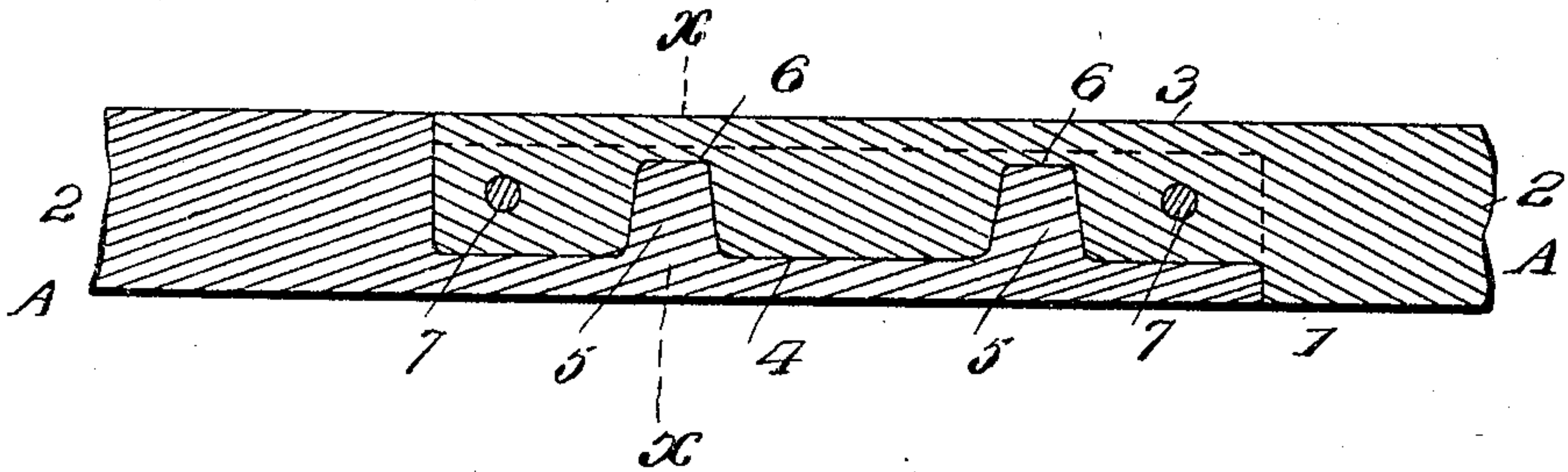


Fig. 3.

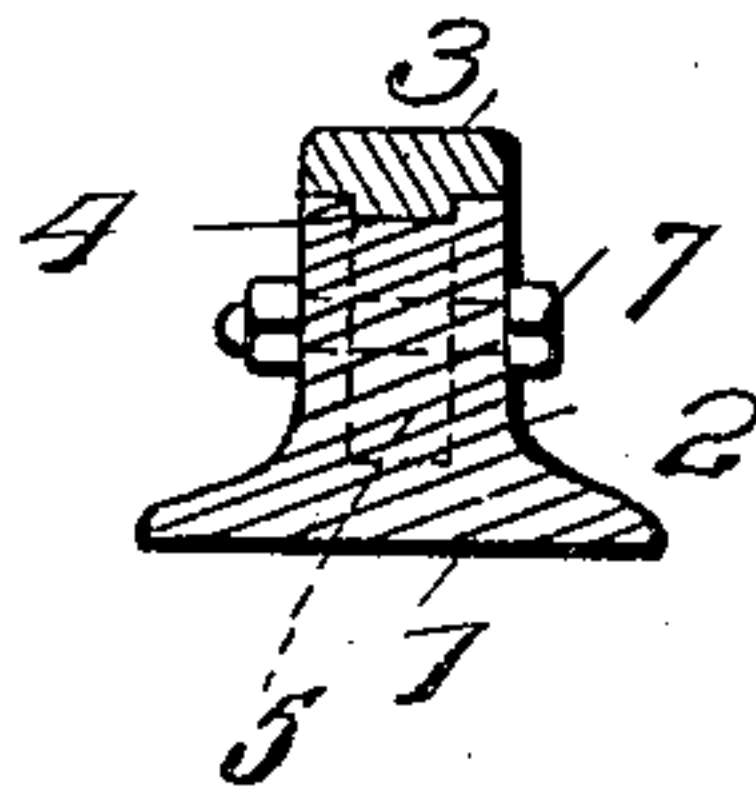
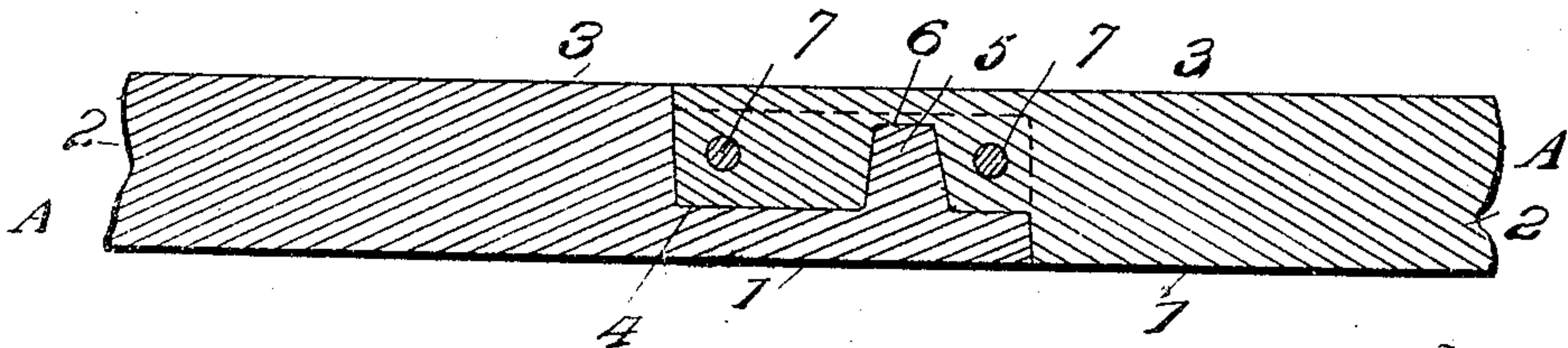


Fig. 4.



Inventor

J. M. Walker

Witnesses

W. H. Hudson
W. H. Hudson

By

R. A. Dacey
R. A. Dacey, Attorneys

UNITED STATES PATENT OFFICE.

JAMES M. WALKER, OF BIGVALLEY, TEXAS.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 773,611, dated November 1, 1904.

Application filed April 19, 1904. Serial No. 203,923. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. WALKER, a citizen of the United States, residing at Bigvalley, in the county of Mills and State of Texas, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to means for joining the meeting ends of rails; and the invention particularly embodies a special construction of rail, whereby the same may be interlocked with an adjacent rail to afford a substantial and rigid connection therewith.

In carrying out the invention the ends of the rails are formed so as to afford the interlocking feature above mentioned, and the necessity for the use of fish-plates or like parts is obviated.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view showing the formation of the respective ends of a rail embodying my invention. Fig. 2 is a longitudinal vertical sectional view showing rails interlocked together as in actual use. Fig. 3 is a transverse vertical sectional view taken on the line *xx* of Fig. 2. Fig. 4 embodies a modification of the invention.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, A designates the rails, and the same are, generally speaking, of the ordinary construction, save as regards the formation of the ends thereof. Each rail comprises a base 1, the web 2, and the ball or head 3. In the preferred contemplation of the invention the head or ball 3 of one end of the rail is cut away longitudinally thereof for

some distance, and the web portion 2, adjacent the cut-away portion of the head 3, is provided with a longitudinal recess 4. The length of the cut-away portion of the head of the rail may be varied as found most suitable in the practical embodiment of the invention, and the recessed portion 4 of the web 3 has disposed in the length thereof a plurality of partitions 5, located transversely, as will be readily noted by reference to Fig. 1 of the drawings. The opposite end of the rail A has the base 1 thereof cut away and the web portion 2, adjacent the cut-away portion of the base 1, is somewhat reduced, so as to be received in the longitudinal recess 4 of an adjacent rail.

The reduced web portion above mentioned is provided in its length with a plurality of transverse recesses 6, which latter receive the partitions 5, located in the longitudinal recess 4 of the adjacent rail, and the coöperation of the partitions and the recessed portions 6 establishes the interlocking connection between the rails, preventing longitudinal separation thereof, as well as transverse play or movement. The provision of a plurality of partitions 5 in the longitudinal recess 4 at one end of each rail affords a greater rigidity of connection, in that all likelihood of looseness of connection is obviated and a greater rigidity of the rail connections obtained. Also since the web portion of one of the rails is received in the longitudinal recessed portion of the other the rail ends are not liable to become rounded so as to cause rattling and vibration as the rolling-stock is passing thereover.

Though not absolutely necessary, transverse fastenings in the form of bolts 7 or the like may be passed through the interlocking end portions of the rail A, so as to effectively insure against likelihood of displacement of the adjacent part. However, the use of spikes to secure the rails upon the cross-ties is probably all that is necessary to maintain the rails firmly in interlocking engagement, as described hereinbefore.

In Fig. 4 the recess 4 and the cut-away portion of the base of the adjacent rail are different from the structure shown in the preferred

form of the invention only in the length thereof, the coöperation of the rail ends being the same.

Having thus described the invention, what
5 is claimed as new is—

1. In a rail-joint, the combination of adjacent rails, one of said rails having the base thereof adjacent the end cut away longitudinally, the web portion of said rail adjacent
10 the cut-away base portion being provided with transverse recesses, the other rail having the head portion thereof at the end cut away longitudinally, the web portion being provided with a longitudinal recess, partitions disposed
15 in said recess and received in the recesses of the web portion of the first-mentioned rail in assembling and connecting said rails.

2. In a rail-joint, the combination of adjacent coöperating rails, one of said rails having
20 the base thereof cut away longitudinally

at one end, the web of said rail adjacent the cut-away base being reduced and provided with a plurality of transverse recesses, the other coöperating rail having the head or ball portion thereof cut away longitudinally and
25 the web adjacent the cut-away ball or head portion provided with a longitudinal recess, a plurality of partitions disposed in the longitudinal recess of the rail aforesaid, the reduced web of the first-mentioned rail being
30 received in the longitudinal recess of the second-mentioned rail in assembling and securing said rails together.

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

JAMES M. WALKER. [L. s.]

Witnesses:

W. A. SMITH,

S. S. CAMPBELL.