

No. 680,023.

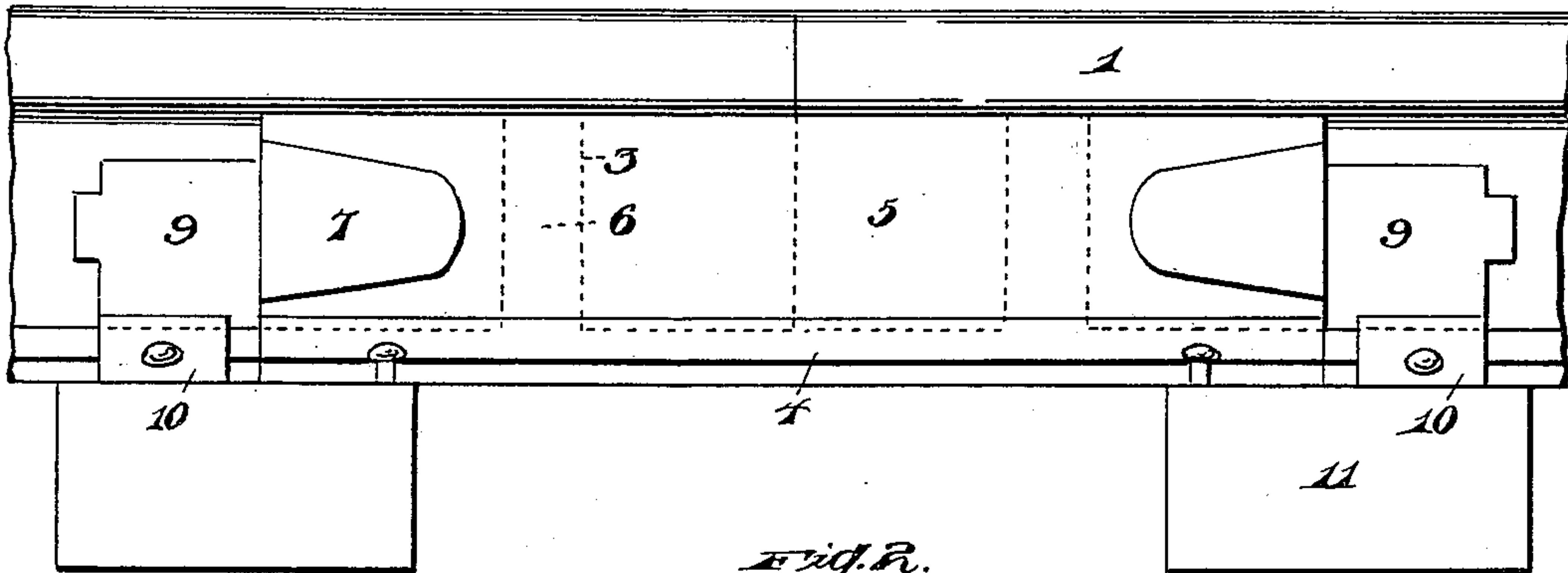
Patented Aug. 6, 1901.

G. CONDIFF.  
RAIL JOINT.

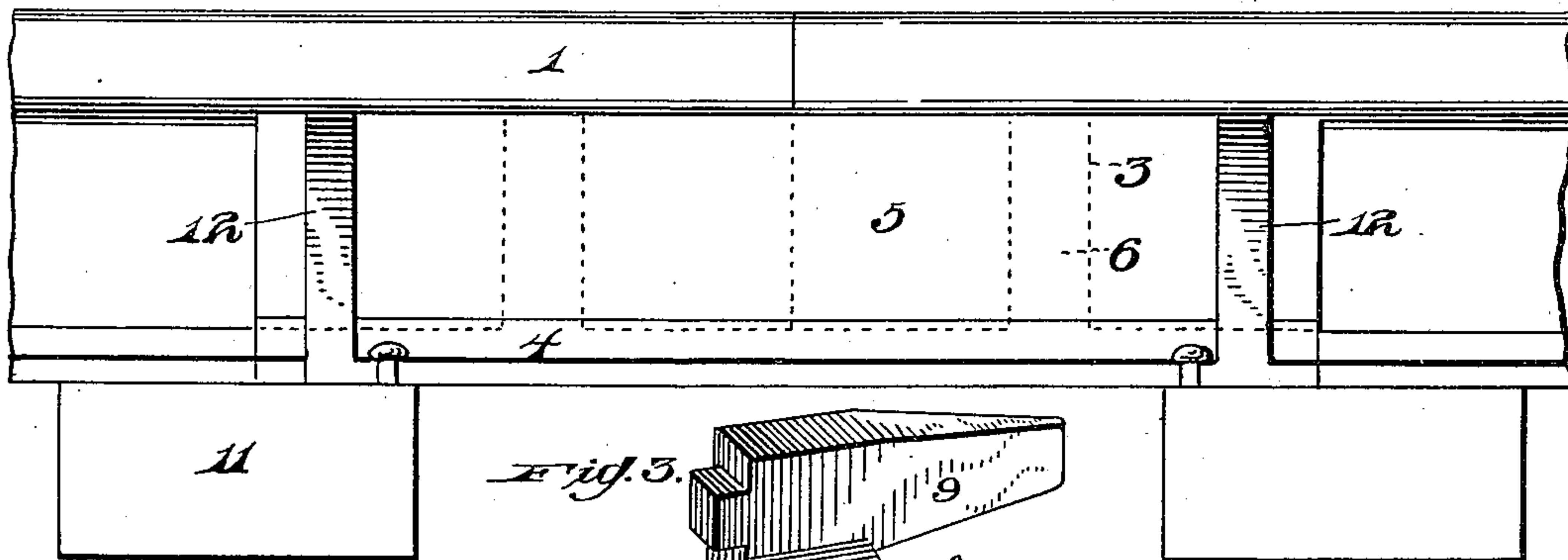
(Application filed May 25, 1901.)

(No Model.)

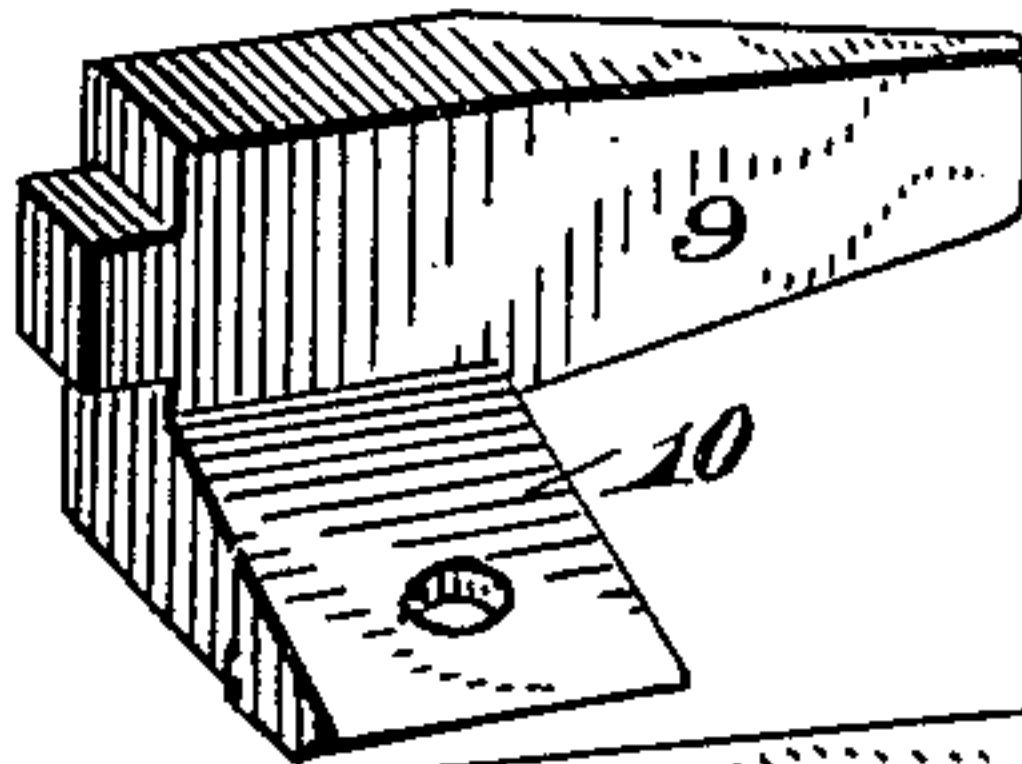
*Fig. 1.*



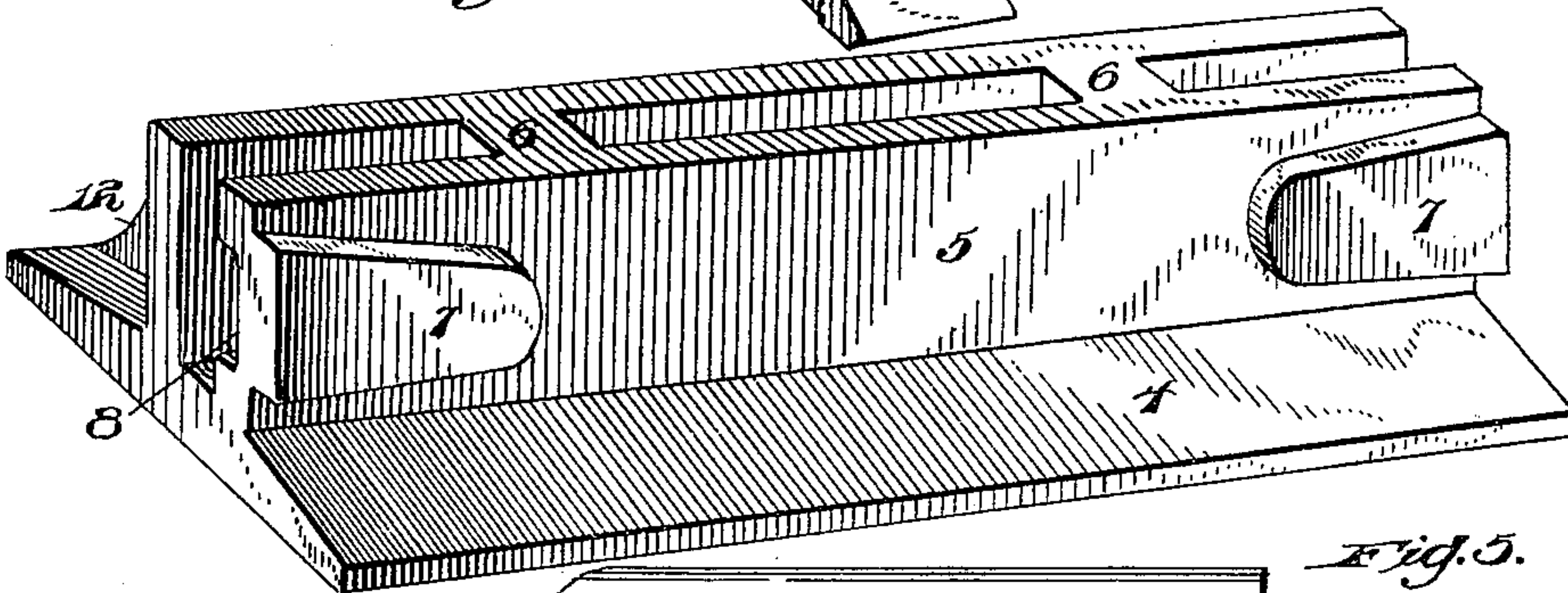
*Fig. 2.*



*Fig. 3.*



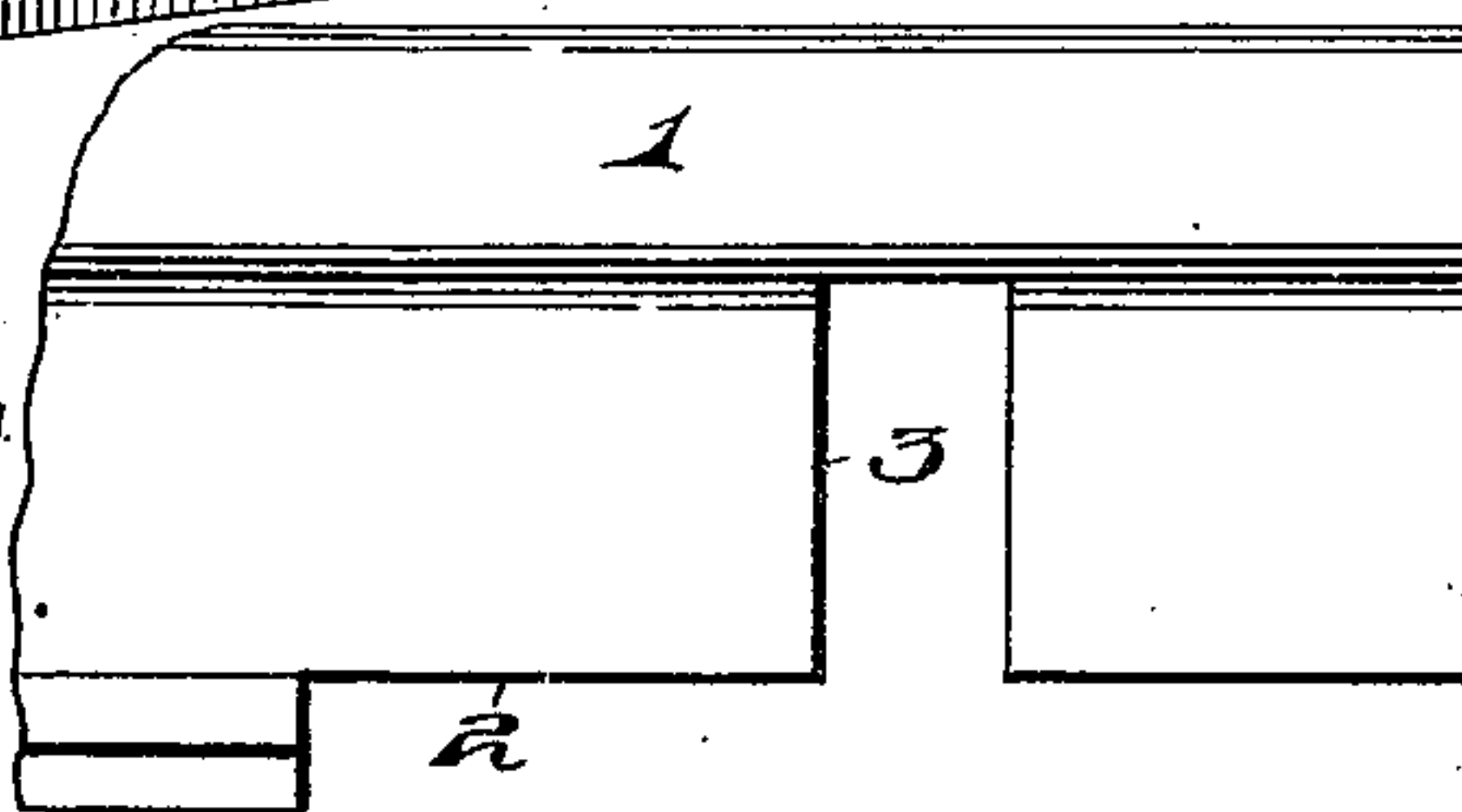
*Fig. 4.*



*Fig. 5.*

Witnesses:

*J. P. Appleman*  
*E. C. Potter*



Inventor  
G. Condiff.

By

*A. C. Over*  
*Att'y.*



# UNITED STATES PATENT OFFICE.

GRIFF CONDIFF, OF CONNELLSVILLE, PENNSYLVANIA.

## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 680,023, dated August 6, 1901.

Application filed May 25, 1901. Serial No. 61,872. (No model.)

*To all whom it may concern:*

Be it known that I, GRIFF CONDIFF, a citizen of the United States of America, residing at Conneltsville, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in rail-joints, and more particularly to that class wherein the use of nuts and bolts is entirely dispensed with.

15 The invention has for its object the provision of novel means whereby two sections of rails may be easily and conveniently joined together by the use of a chair carrying integral fish-plates in connection with certain wedge-shaped locking means, to be hereinafter described in detail.

20 The invention has for its further object to construct a rail-joint of the above-described class that will be extremely simple, strong, durable, and comparatively inexpensive to manufacture; furthermore, one that will allow the rails to be joined and taken apart when desired.

30 With the above and other objects in view the invention consists in the novel combination and arrangement of parts, to be hereinafter more fully described, and specifically pointed out in the claims.

35 In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate corresponding parts throughout the several views, in which—

40 Figure 1 is a side elevation of two sections of rails having my improved rail-joint attached thereto. Fig. 2 is a similar view of the other side of the rails. Fig. 3 is a perspective view of the wedge-shaped lock. Fig. 4 is a perspective view of the chair carrying integral fish-plates. Fig. 5 is a side elevation of the end of a rail which is shown partly broken away.

50 In the drawings the reference-numeral 1 indicates the rails, having a portion of the base of the rail removed, as shown at 2.

3 indicates a vertical slot cut in the web of

the rail and extending upwardly to the lower portion of the tread thereof.

The reference-numeral 4 indicates the chair carrying integral fish-plates 5, said fish-plates 55 being provided with partitions 6, which are adapted to fit in the slots 3 of the rails. Upon the outer face of one of the fish-plates 5 are formed enlarged portions 7, which are designed to strengthen the fish-plates at their 60 ends, in which is formed on their inner face a wedge-shaped recess 8, which wedge-shaped recess is adapted to receive the wedge-lock 9, having formed integral therewith an apertured lug 10 to receive fastening means, such 65 as a spike, that will permit the wedge-shaped lock to be securely fastened to the cross-tie 11.

The reference-numeral 12 indicates strengthening-ribs formed integral with the opposite fish-plate 5 for the purpose of 70 strengthening and resisting the strain that is necessarily brought to bear against the opposite fish-plate 5.

The manner of connecting the rails is as follows: Each rail having a cut-away portion 75 2 and slot 3 will straddle the partitions 6 of the chair, and the wedge-lock is then driven into the wedge-shaped recess at the ends of the fish-plate, which will produce a wedging action and securely hold and retain the rail 80 in its proper position. A spike or other fastening means is then applied to the apertured lug of the wedge-lock, which serves to fasten the same securely in position to the cross-tie. It may be necessary to use additional spikes, 85 as shown in Fig. 1 of the drawings, to engage the base of the rail.

The many advantages obtained by the use of my improved rail-joint will be readily apparent from the foregoing description, taken 90 in connection with the accompanying drawings.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my 95 invention.

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

1. In combination with rails having a por- 100 tion of their base cut away and a vertical slot formed near the ends of said rails, a chair

carrying integral fish-plates having wedge-shaped recesses formed therein, partitions arranged between said fish-plates engaging said slots of the rails, and a wedge-shaped lock arranged in said wedge-shaped recess, substantially as described.

2. In combination with rails having a portion of their base cut away and a vertical slot formed in the web of the rails, a chair carrying integral fish-plates, partitions arranged in said fish-plates engaging in said slots of the rails, substantially as described.

3. In a rail-joint, the combination with the rails having a portion of their base cut away

and a vertical slot formed in the web, a chair 15  
carrying integral fish-plates, partitions arranged between said fish-plates engaging said slots of the rails, a wedge-shaped lock secured in the ends of said fish-plates, and a fastening-lug formed integral with said wedge-shaped 20  
lock, all parts being arranged and operating substantially as described.

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

GRIFF CONDIFF.

Witnesses:

H. C. EVERT,  
JOHN NOLAND.