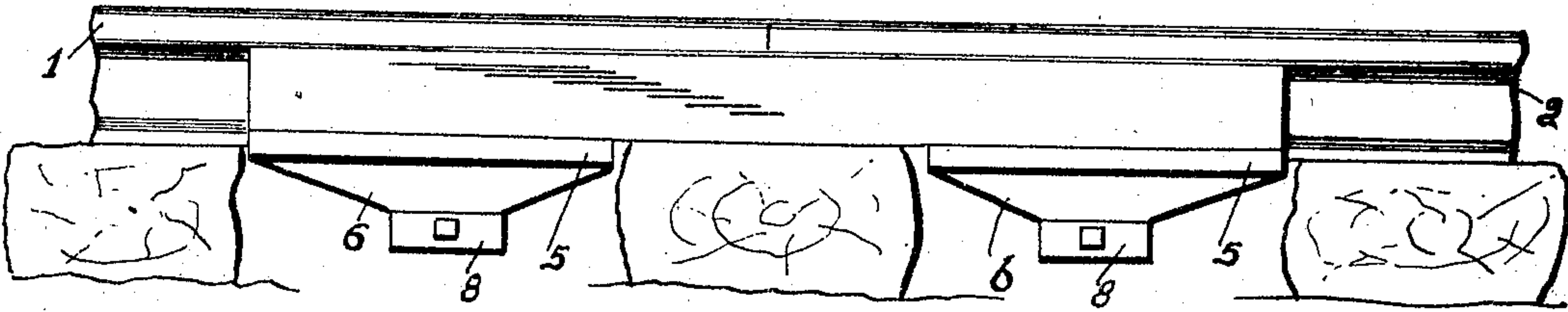


No. 780,814.

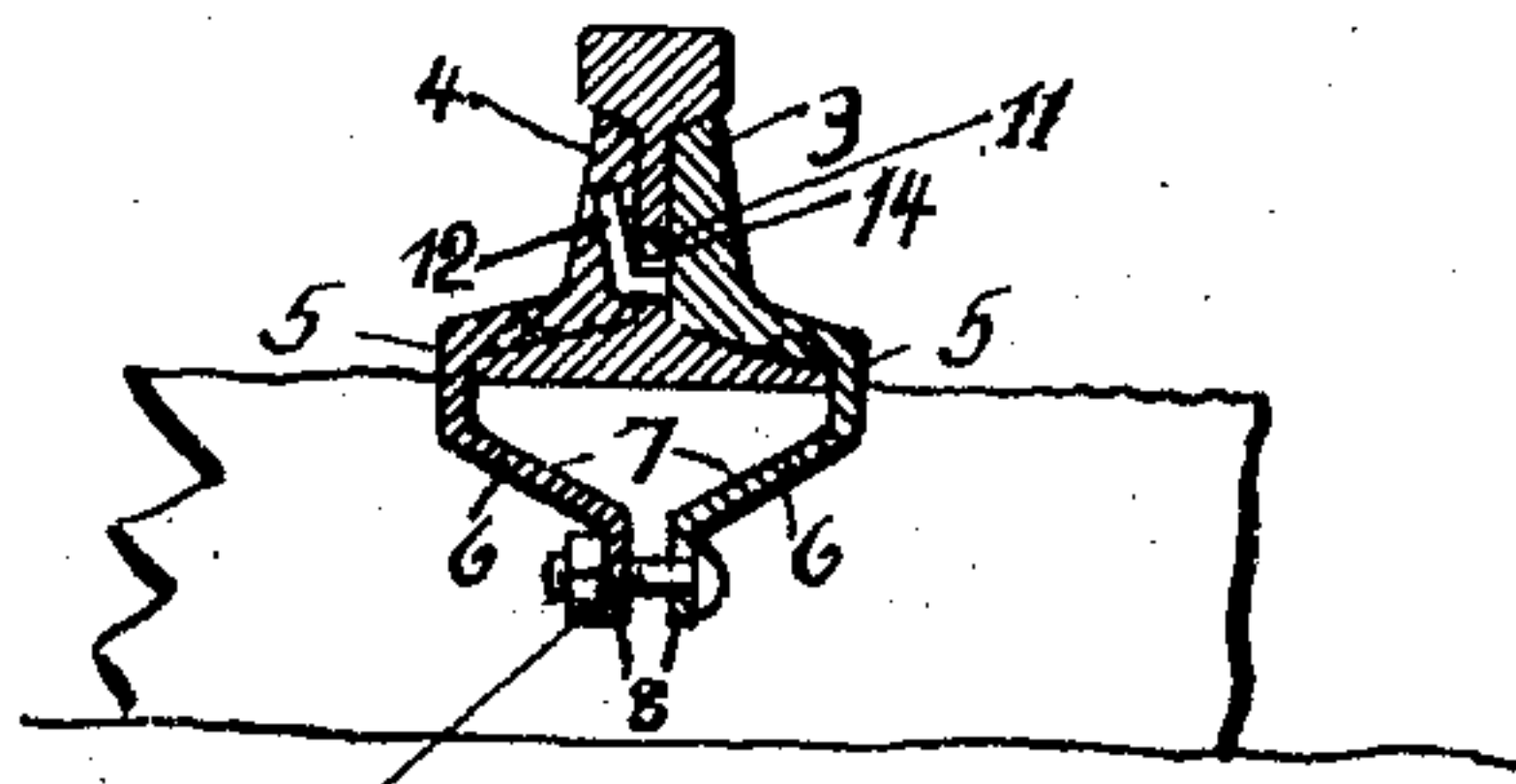
PATENTED JAN. 24, 1905.

C. J. REESE.  
RAIL JOINT.

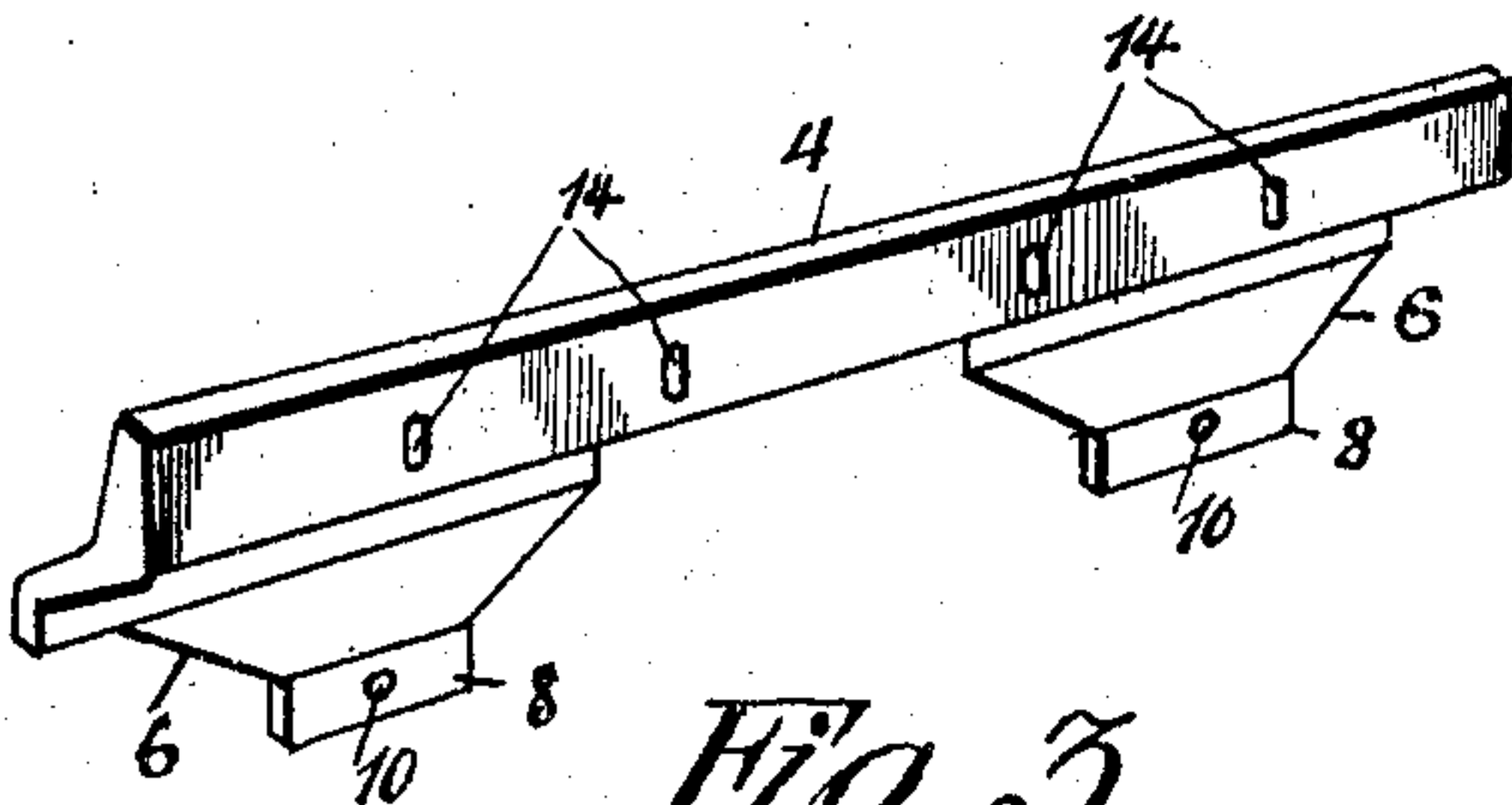
APPLICATION FILED OCT. 19, 1904.



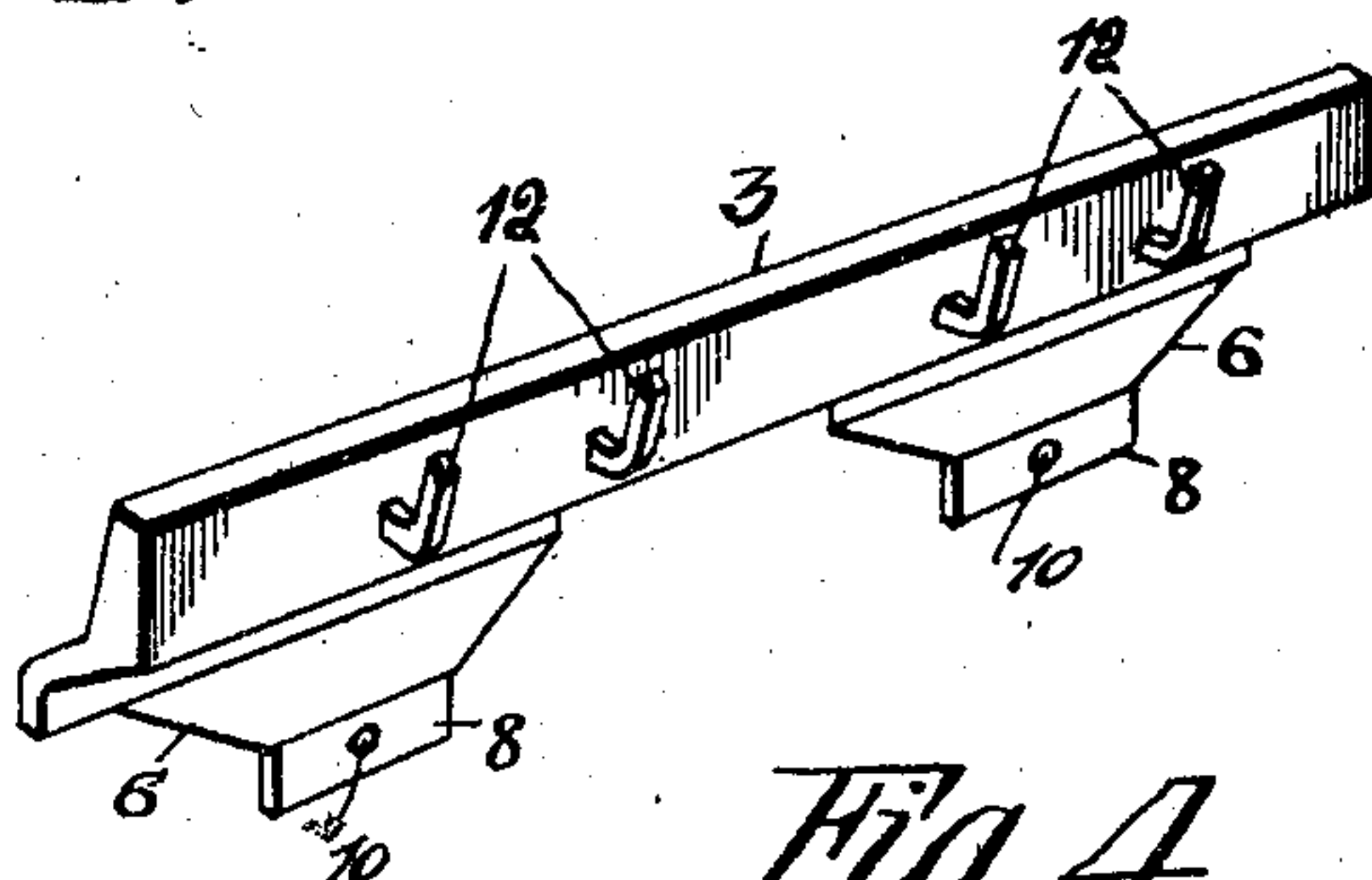
*Fig. 1.*



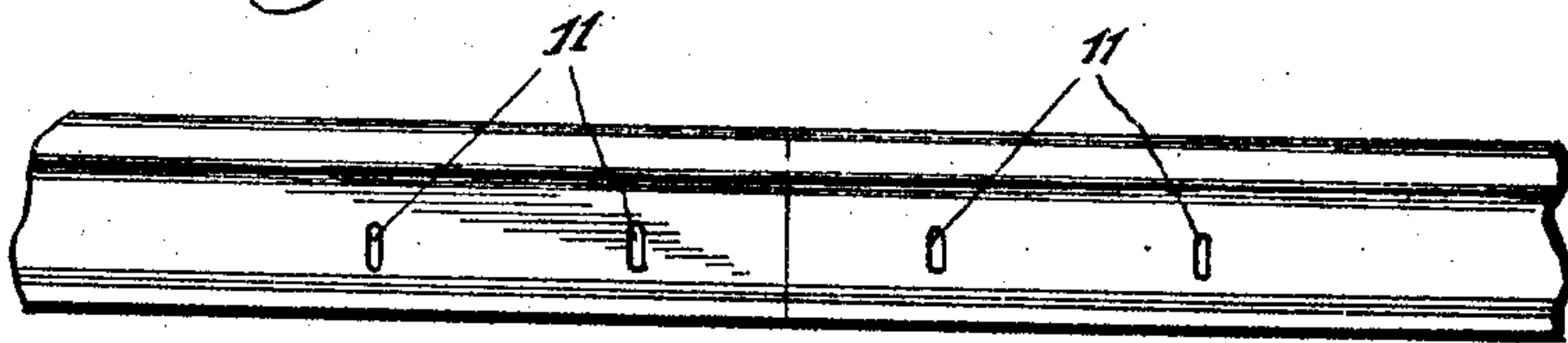
*Fig. 2.*



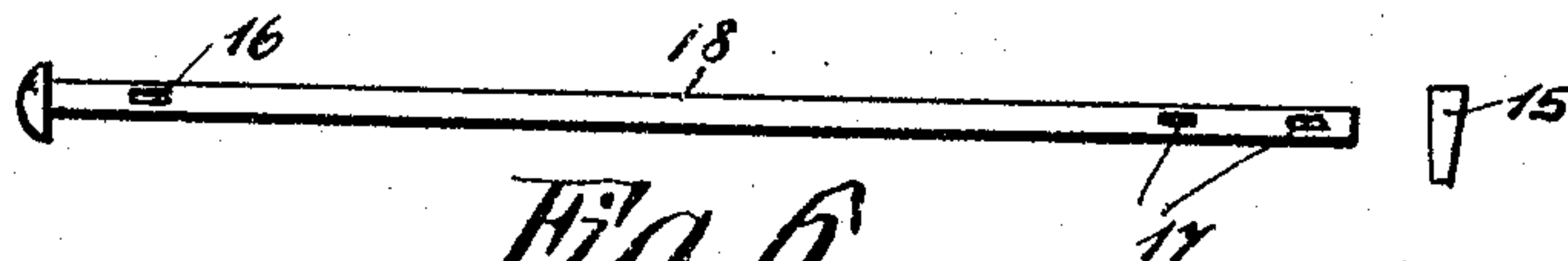
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



*Fig. 6.*

Witnesses:  
H. H. Butler  
C. Klostermann

Inventor,  
Charles J. Reese  
By H. C. Everett & Co.  
Attorneys.



# UNITED STATES PATENT OFFICE.

CHARLES J. REESE, OF HOMESTEAD, PENNSYLVANIA.

## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 780,814, dated January 24, 1905.

Application filed October 19, 1904. Serial No. 229,125.

*To all whom it may concern:*

Be it known that I, CHARLES J. REESE, a citizen of the United States of America, residing at Homestead, in the county of Allegheny 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 has for its object the provision of novel means for securing the ends of two rail-sections together in such a manner that it will be impossible for  
15 either section to move independently of the other, and in constructing my improved rail-joint I have entirely dispensed with the use of nuts and bolts which heretofore have passed through the web portions of the rail-sections.

20 The rail-joint as contemplated by me not only secures the two ends of the rails together, but braces and supports the heads of the rails and the web portions thereof, and I have employed a novel form of lock for securing the  
25 fish-plates comprising my improved rail-joint together, whereby said fish-plates will be retained in engagement with the rails.

The invention consists in the novel construction, combination, and arrangement of  
30 parts, which will be hereinafter more fully described, and then specifically pointed out in the claims, and, referring to the drawings accompanying this application, like numerals of reference designate corresponding parts  
35 throughout the several views, in which—

Figure 1 is a side elevation of my improved rail-joint, showing the same in position upon the ends of two rail-sections. Fig. 2 is a vertical sectional view of the same. Figs. 3 and  
40 4 are detail perspective views of the fish-plates used in connection with my improved rail-joint. Fig. 5 is a side elevation of the confronting ends of two rail-sections, and Fig. 6 is a detail view of a tie-rod that may be used  
45 in connection with my improved rail-joint.

In the drawings accompanying this application the reference-numerals 1 and 2 designate the ends of two rail-sections which are to be secured together in such a manner that a  
50 lateral or longitudinal movement of said rails

will be prevented when they have been joined together, and to this end I employ two fish-plates, (designated by the reference-numerals 3 and 4.) The fish-plates may be rolled or may be formed of castings, and in constructing these fish-plates I form the same of a sufficient length to embrace the ends of the rail-sections for a considerable distance, and the fish-plates are substantially of the ordinary form, with the exception that adjacent to each end of said plates I provide depending flanges 5, which are bent inwardly, as indicated at 6, and the bent-inward portion has tapering sides, as indicated at 7. This portion of the fish-plates is then bent downwardly, forming a flange 8, and when the two fish-plates are placed upon the rail-sections the flanges 8 of each fish-plate lie in close proximity to one another, as shown in Fig. 2 of the drawings. The fish-plates are then adapted to be secured together by a bolt and nut 9, which is secured in the flanges 8 of each fish-plate, said flanges being provided with apertures 10 to receive the bolt.

Instead of providing each end of the adjoining rail-sections with apertures through which the bolts have heretofore passed I provide each end of the adjoining rail-sections with vertical slots 11 11, and one of said fish-plates has formed upon its inner face the inwardly-projecting locking-pins 12, which are substantially L shape. The opposite fish-plate is provided upon its inner face with the recesses 14, and when said fish-plates are placed upon the adjoining rail-sections the locking-pins 12 are adapted to pass through the vertical slots 11 of each rail and engage in the recesses 14, as illustrated in Fig. 2 of the drawings.

By referring to Fig. 1 of the drawings it will be observed that the depending flanges of the fish-plates are interposed between the ties which support the rail-sections and that the joint between said rail-sections is adapted to lie upon a tie interposed between the two flanged portions of the fish-plates. During the construction of a railway should the joints of the rail-sections lie opposite each other a tie-rod 18, such as illustrated in Fig. 6 of the drawings, may be employed in connection with the rail-joint and the nut and bolt, as designed—



nated by the reference-numeral 9, dispensed with. The tie-rod is adapted to pass through the flanges 8 8 of the fish-plates and have a key 15 placed in an opening 16, formed in the tie-rod, whereby the flanges 8 8 of one rail-joint will be held together, while the flanges upon the opposite track will be held together by similar keys passing through the apertures 17 upon the opposite end of the tie-rod. It is therefore obvious that bolts may be used in the place of the nut and bolt 9, which are provided with an opening in their end through which a key could pass and the depending flanges of the fish-plates be secured together in this manner.

While I have herein shown the preferred form of construction as I intend to use the same, it is obvious that various changes may be made in the details of construction without departing from the spirit and scope of the invention.

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

1. The combination with the ends of two rail-sections, said rail-sections having openings formed therein, of two fish-plates, one of said fish-plates having recesses formed therein, the other of said fish-plates having locking-pins formed therein, which are adapted to fit within the recesses of the other fish-plate, said

fish-plates having depending inwardly-extending flanges, and means for securing said flanges together, substantially as described.

2. The combination with the confronting ends of two rail-sections, said rail-sections having slots formed therein, of two fish-plates, the ends of each fish-plate having depending inwardly-extending flanges, means carried by one of said fish-plates for locking said fish-plate in engagement with the opposite plate, and means for securing said flanges together, substantially as described.

3. The combination with the confronting ends of two rail-sections, said rails having slots formed adjacent to their ends, of two fish-plates, one of said fish-plates having recesses formed therein, locking-pins carried by the other of said fish-plates and adapted to engage in the recesses of the first-named plate, said fish-plates having depending inwardly-extending flanges formed adjacent to their ends, and means for securing said flanges together, substantially as described and for the purpose herein set forth.

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

CHARLES J. REESE.

Witnesses:

E. E. POTTER,  
H. C. EVERT.