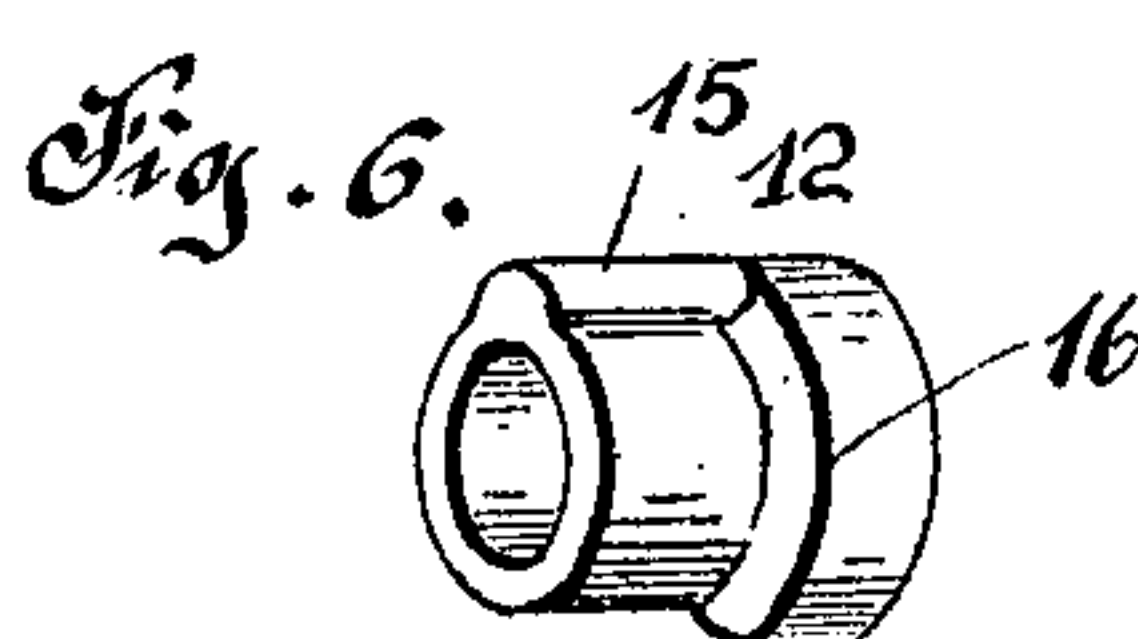
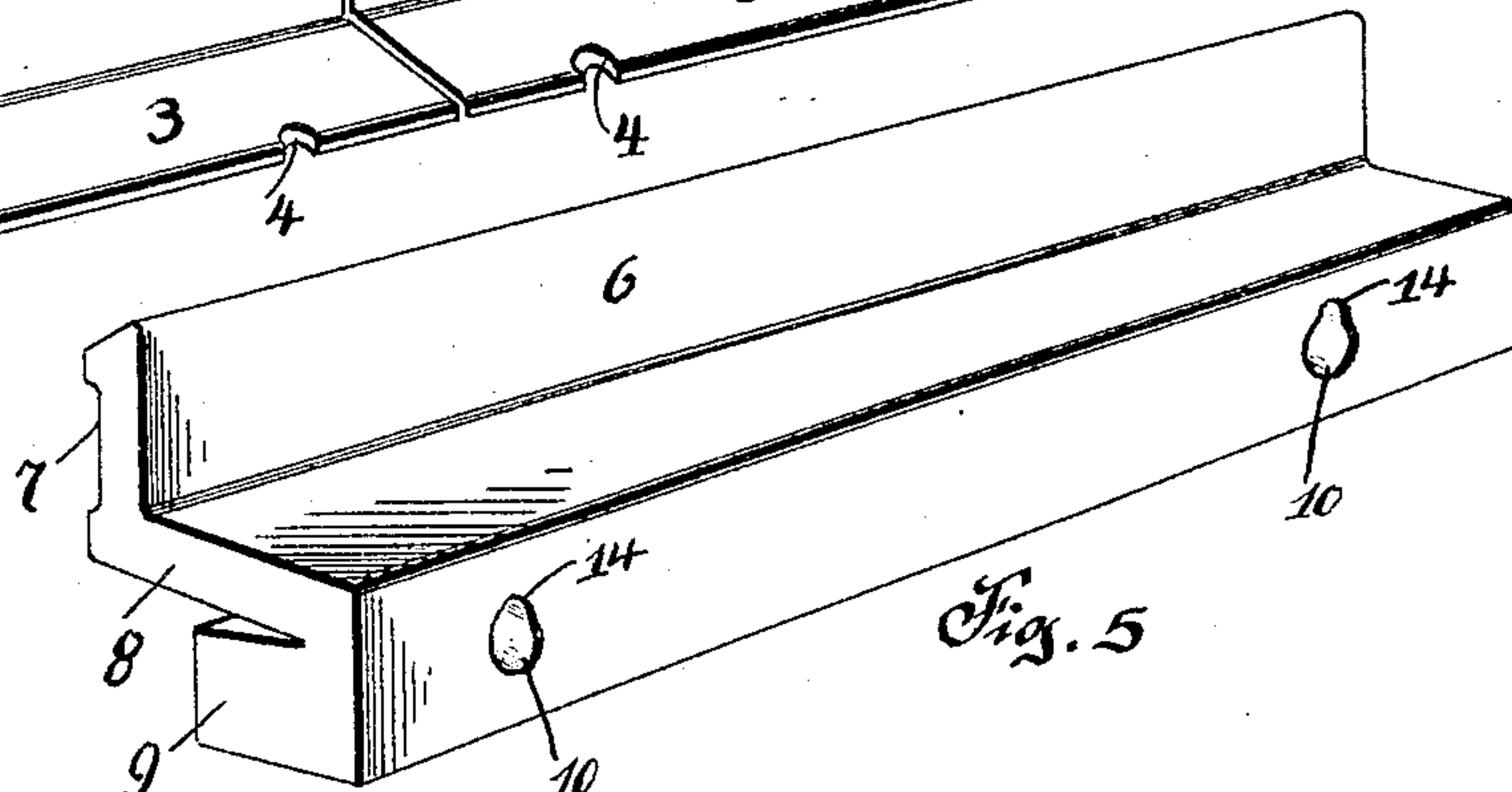
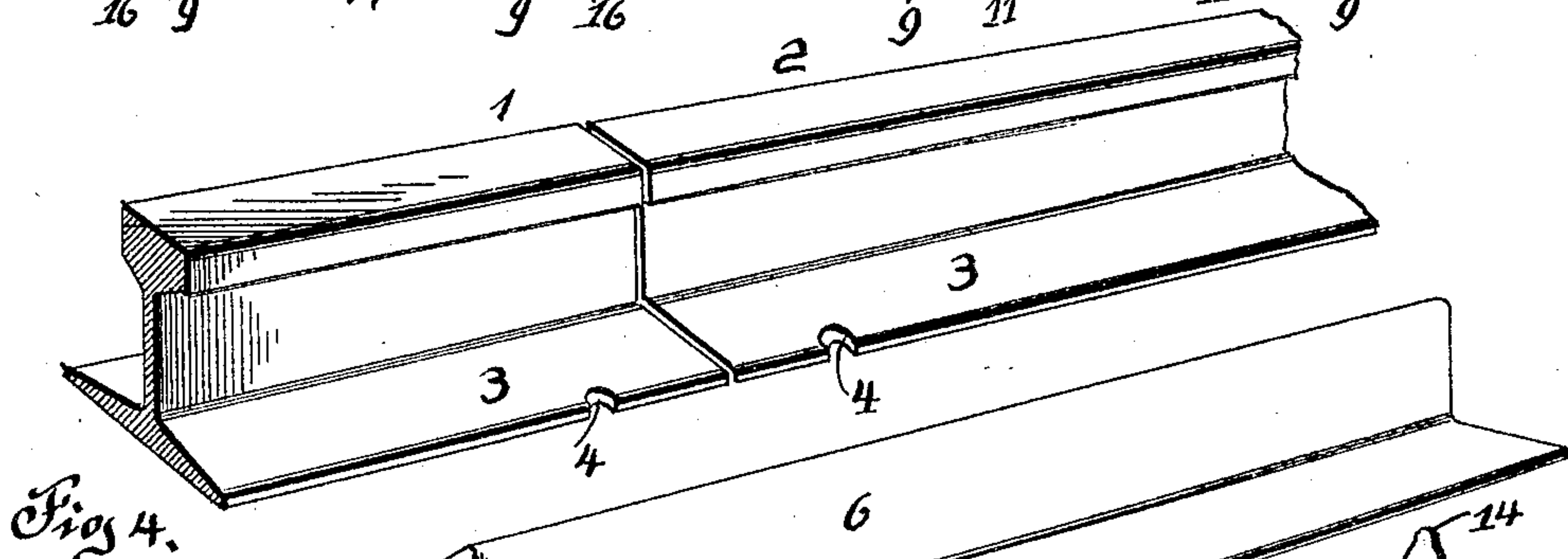
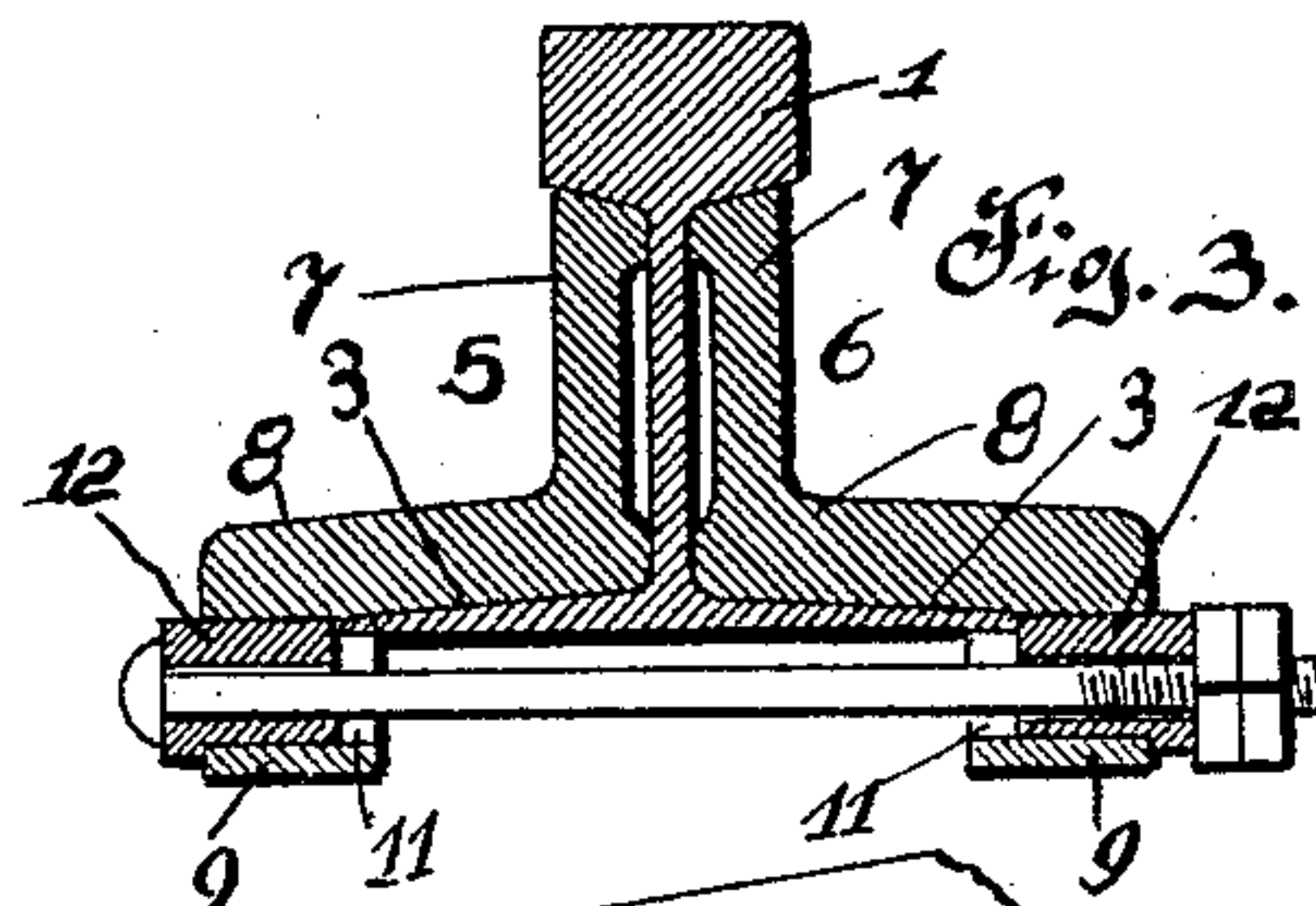
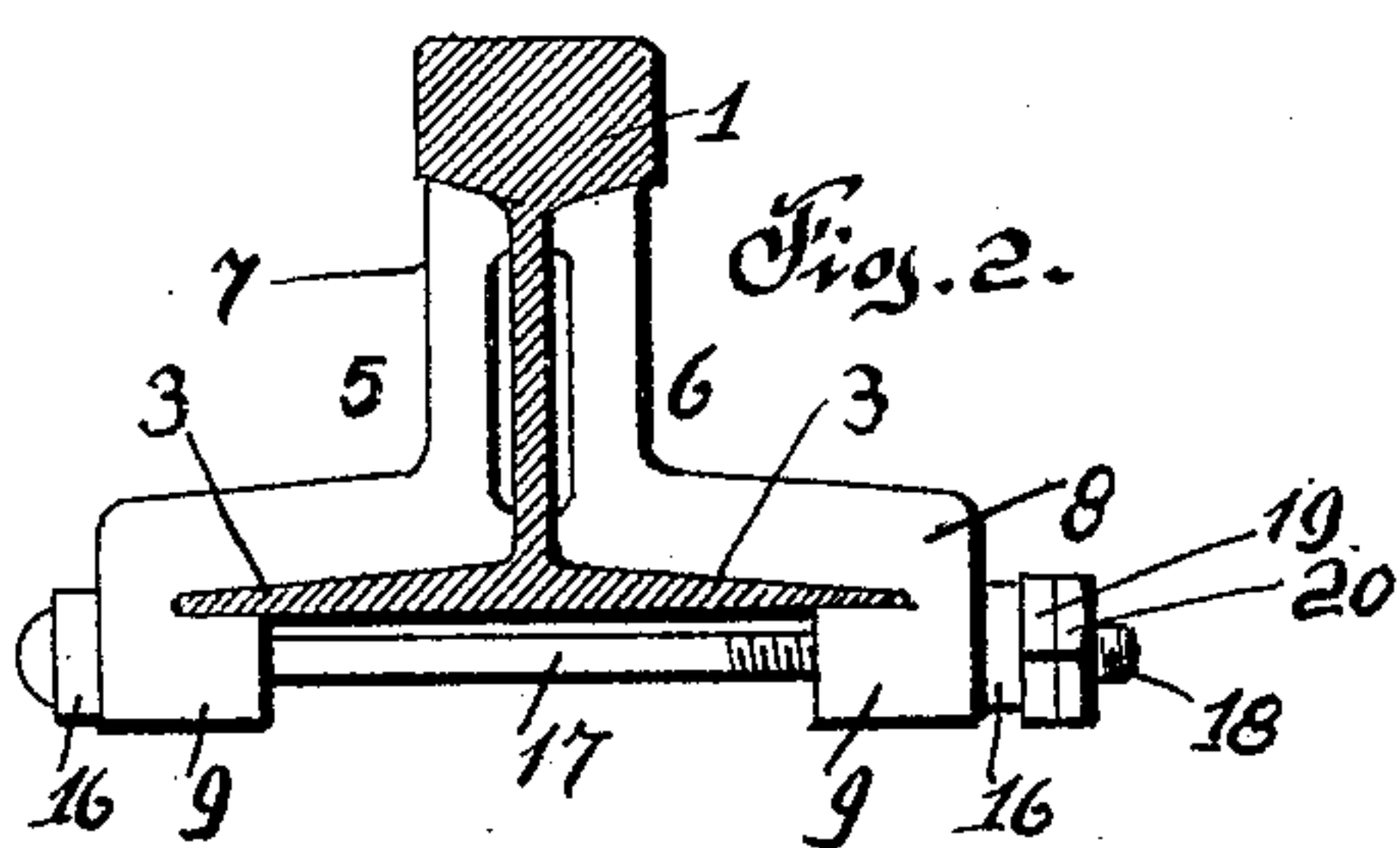
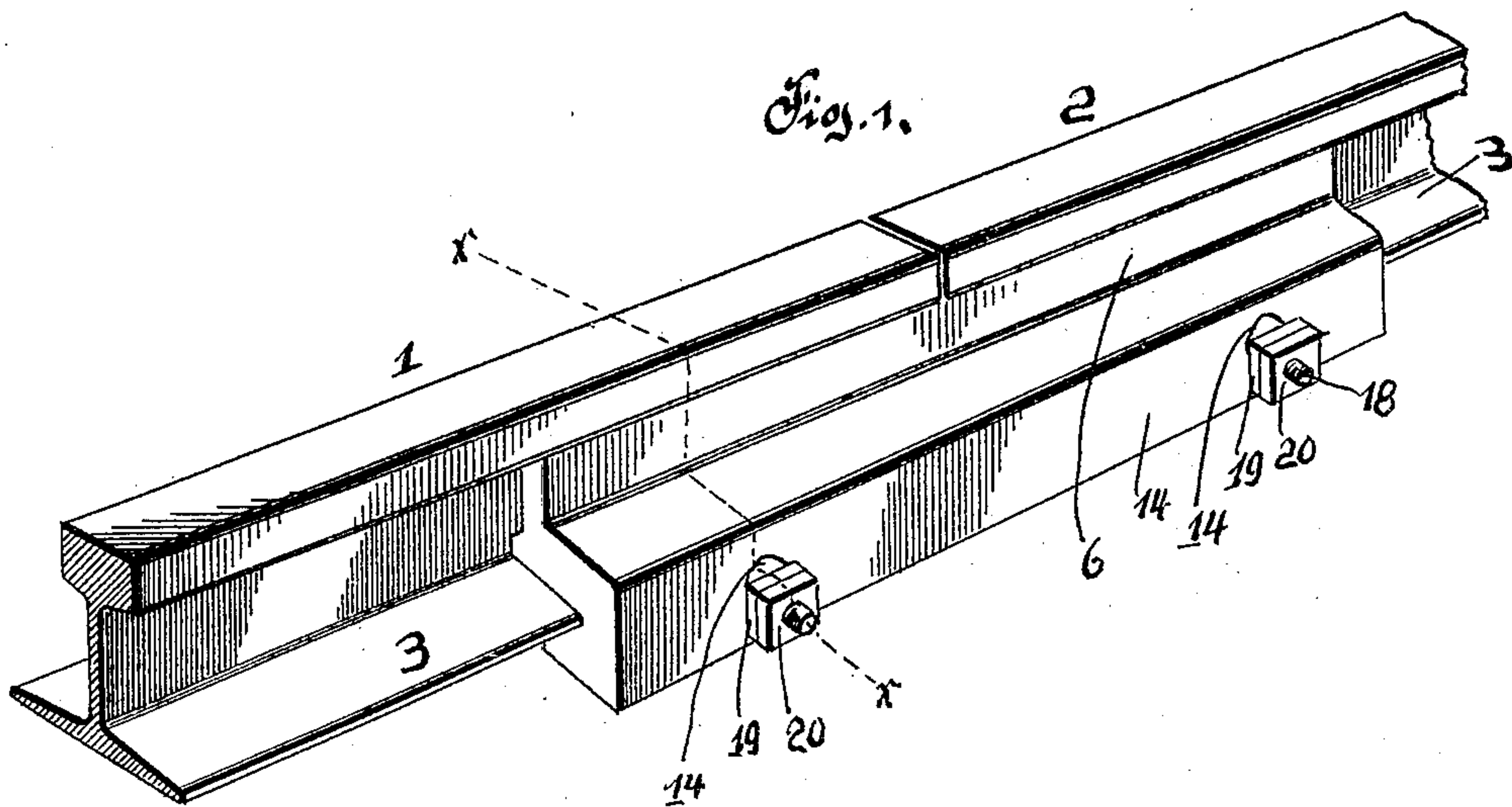


No. 814,443.

PATENTED MAR. 6, 1906.

G. C. H. HABERMANN.
RAIL JOINT.

APPLICATION FILED JAN. 4, 1906.



Witnessed:
C. H. Hartmann,
Atty. at Law.

Inventor.
George C. H. Habermann.

By H. C. Hartmann & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE C. H. HABERMANN, OF McKEESPORT, PENNSYLVANIA.

RAIL-JOINT.

No. 814,443.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed January 4, 1906. Serial No. 294,500.

To all whom it may concern:

Be it known that I, GEORGE C. H. HABERMANN, a citizen of the United States of America, residing at McKeesport, 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 the invention has for its object the provision of novel means for retaining the confronting ends of two sections of rail in close proximity to one another, thus permitting of the expansion and contraction of said rails, at the same time maintaining a strong and durable connection therebetween.

20 Another object of this invention is to provide a rail-joint wherein the rails forming the joints will be prevented from becoming longitudinally displaced, the rails also being prevented from spreading when forming the track by the novel construction of my improved joint.

25 A further object of this invention is to provide a joint which can be easily and quickly formed by unskilled workmen, not necessitating the employment of workmen skilled in the art of railway construction.

30 A still further object of this invention is to form a rail-joint which will be extremely simple in construction, comparatively inexpensive to manufacture, and highly efficient for the purposes for which it is used.

35 With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described and claimed, and, referring to the drawings accompanying this application, like numerals of reference designate corresponding parts throughout the several views, in which—

40 Figure 1 is a perspective view of my improved rail-joint. Fig. 2 is an end view of the same. Fig. 3 is a cross-sectional view taken on the line *x x* of Fig. 1. Fig. 4 is a perspective view of the confronting ends of two sections of rail. Fig. 5 is a perspective view of one of the members of my improved rail-joint, and Fig. 6 is a perspective view of a locking-collar employed in connection with the same.

50 To put my invention into practice, I employ two sections of rails 1 and 2, and I provide the base-flanges of said sections of

rails adjacent to their confronting ends with notches 4 4. To retain the rails in close proximity to one another, I employ members 5 and 6, which correspond substantially to fish plates or bars, each member having a web portion 7 to brace the webs and heads of the rails and a base-flange portion 8, which engages the base-flanges of the rails and extends a short distance beneath their edges, as at 9. 65 The member 6 has its base portion provided with transverse openings 10 10, which are adapted to aline with similar openings 11 11, formed in the member 5. These openings terminate in the upper edge of the portion 9 of the members 5 and 6, that extends under the base-flanges of the rails, and in said openings are mounted locking-collars 12. The openings 10 10 and 11 11 are irregular in contour on account of being recessed, as at 14 14, 75 to receive the rib 15, carried by the locking-collar 12, said collar being provided with a peripheral flange 16 to limit its movement within the openings 10 10 and 11 11. Bolts 17 are employed in connection with the collars 12, said bolts passing through the alining collars and having their screw-threaded ends 18 provided with nuts 19 and 20, the nut 20 serving functionally as a jam or lock nut.

80 After the members 5 and 6 are placed in engagement with the confronting ends of the sections of rails 1 and 2 and the openings 10 10 and 11 11 aline with the notches 4 4 of said rails the locking-collars 12 are placed in the openings 10 10 and 11 11 until the ribs 15 engage within the notches 4 4 of the rails. 90 As the ribs 15 also reside in the recesses 14 14, the collars will be prevented from rotating. Consequently as the ribs are in engagement with the notches 4 4 the rails will be prevented from becoming longitudinally displaced. 95 In employing the bolts and nuts to retain the collars in their respective openings these bolts and nuts also serve to clamp the members 5 and 6 in engagement with the rails 1 and 2, and thereby prevent one rail from becoming laterally displaced relative to the other, also prevent the ends of the rails from spreading when constituting one of the rails of a track.

100 I preferably construct the members 5 and 6 of my improved rail-joint of strong and durable metal, together with the collars thereof, whereby the joint when completed will withstand the stresses and strains exerted upon it by the rolling-stock passing over the same. 110

Such changes in the construction of my improved rail-joint as are permissible by the appended claims may be resorted to without departing from the spirit and scope of the invention.

What I claim, and desire to secure by Letters Patent, is—

1. In a rail-joint, the combination with the confronting ends of two sections of rails, the base - flanges of said rails having notches formed therein, of members adapted to embrace the web portions and base-flanges of said rails, said members having transverse openings formed therein, ribbed collars mounted in said openings and adapted to engage the notches of said rails, bolts passing through said collars and locking said members in engagement with said rails, substantially as described.

2. In a rail-joint, the combination with the confronting ends of two sections of rails, the base - flanges of said rails having notches formed therein, of members embracing said rails, said members having transverse alin-

ing openings formed therein, collars mounted in said openings and adapted to engage in the notches of said rails, and means to retain said collars within said openings, substantially as described.

3. In combination with sections of rails, the base-flanges of said rails having notches formed therein, of members embracing said rails, collars mounted in said members and engaging in the notches of said rails, means to retain said collars therein, and means to retain said members in engagement with said rails, substantially as described.

4. In combination with rails, members adapted to embrace said rails, ribbed collars mounted in said members and engaging said rails, and means to lock said collars within said members, substantially as described.

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

GEORGE C. H. HABERMANN.

Witnesses:

K. H. BUTLER,
A. M. WILSON.