

No. 710,000.

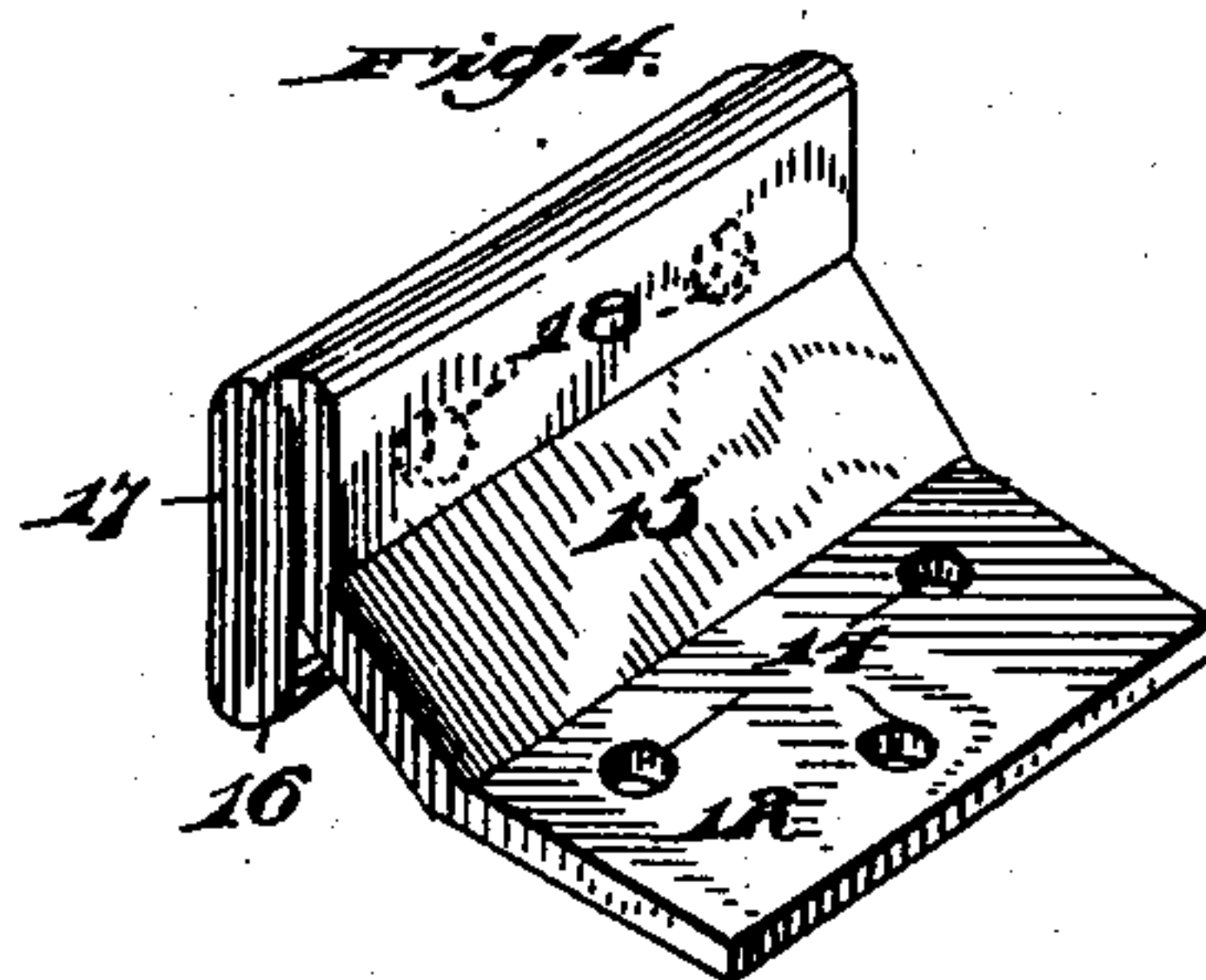
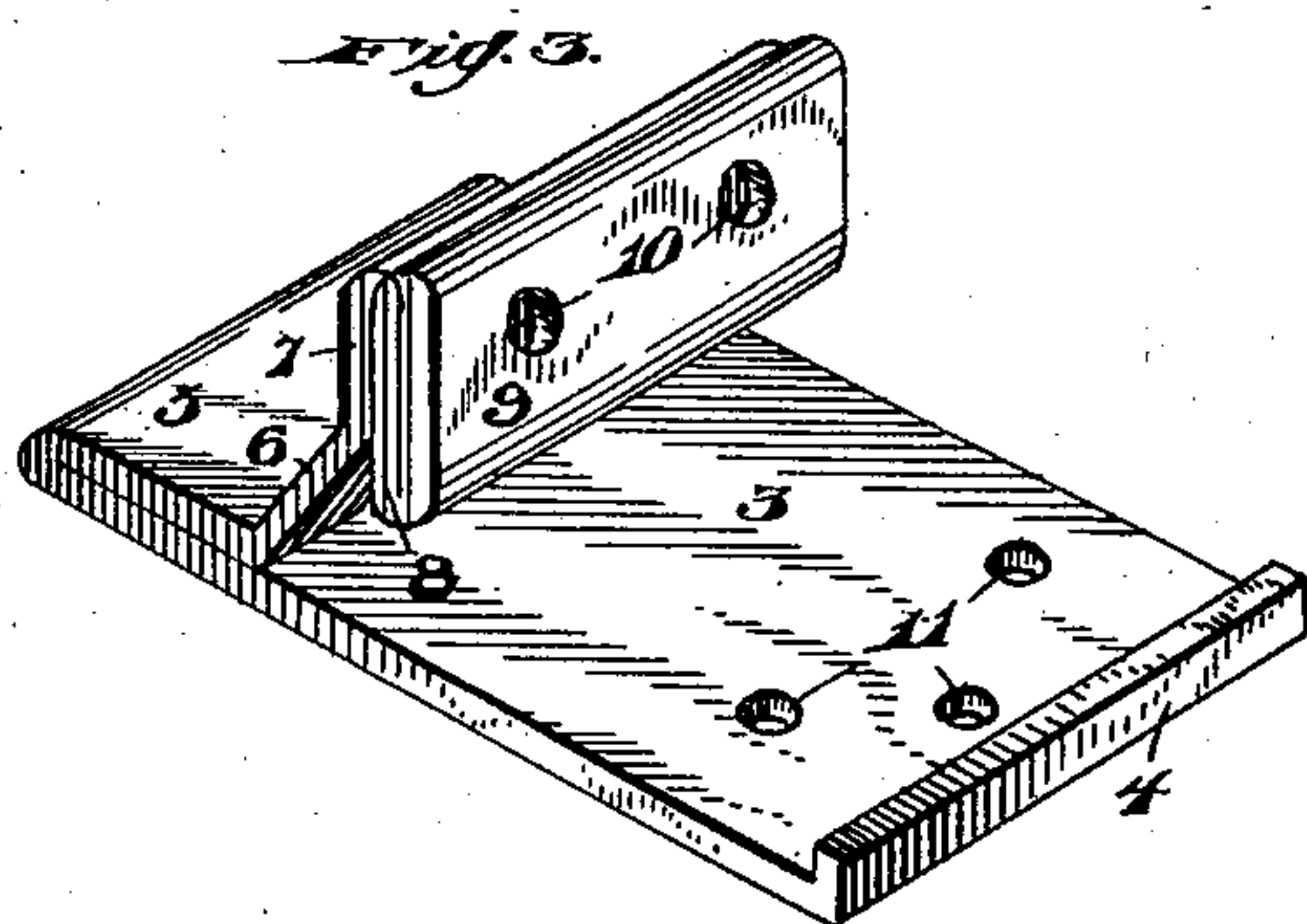
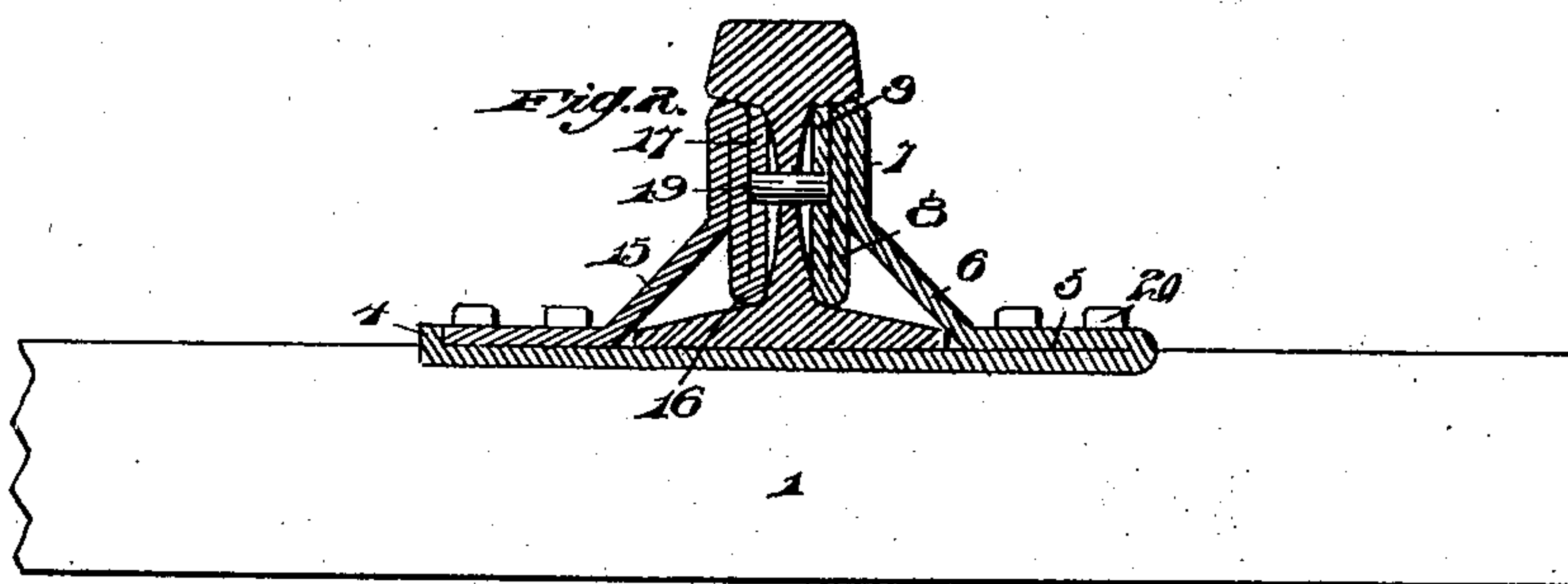
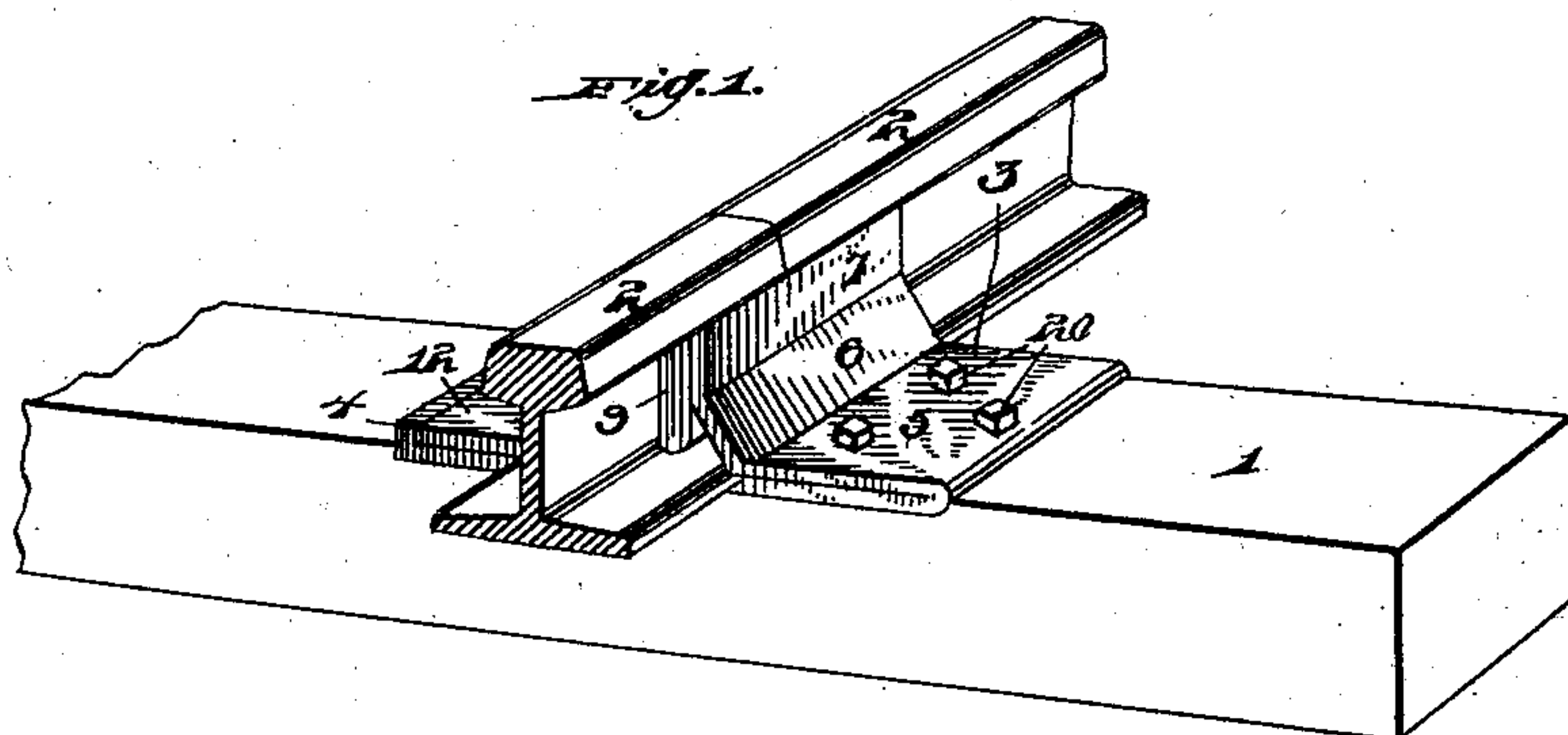
Patented Sept. 30, 1902.

J. J. McDERMOTT.

RAIL JOINT.

(Application filed Dec. 10, 1901.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH J. McDERMOTT, OF NEW BRIGHTON, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 710,000, dated September 30, 1902.

Application filed December 10, 1901. Serial No. 85,332. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. McDERMOTT, a citizen of the United States, residing at New Brighton, in the county of Beaver and State of Pennsylvania, have invented a new and useful Improvement in Rail-Joints, of which improvement the following is a specification.

This invention relates to certain new and useful improvements in rail-joints, and has for its object the provision of novel means whereby rails may be easily joined together.

The invention has for its further object to construct a rail-joint that will be extremely simple in construction, strong, durable, comparatively inexpensive to manufacture, and highly efficient in its operation.

My invention still further contemplates to construct a rail-joint that will provide a chair and integral resilient fish-plate; furthermore, to provide a removable fish-plate that may be easily attached to the chair portion of the rail-joint.

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

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—

Figure 1 is a perspective view of the meeting ends of the rails having my improved joint attached thereto. Fig. 2 is an enlarged vertical sectional view thereof. Fig. 3 is an enlarged perspective view of the chair carrying the integral fish-plate. Fig. 4 is a like view of the removable fish-plate.

In the drawings the reference-numeral 1 indicates the cross-ties, 2 2 the rails, and 3 represents the chair, said chair having an upturned flange 4 at its one end and the other end being bent over upon itself, as shown at 5, forming the fish-plate 6, extending from the underneath face of the tread to the upper face of the base of the rail, said fish-plate extending upwardly, as shown at 7, and thence bent downwardly, as shown at 8, and terminating in an upwardly-bent portion 9, said

upwardly-bent portion 9 having apertures 10 formed therein.

The reference-numeral 11 represents openings formed in the base of the tread. 55

The reference-numeral 12 represents a removable fish-plate having openings 14 formed therein, and 15 represents an integral upwardly-extending portion.

16 shows a downwardly-extending portion bent upwardly upon itself, as shown at 17, this latter portion 17 having formed therein suitable openings 18 to receive the bolt 19, extending through the web of the rail, said bolt being seated in the openings 18 and 10. 65

The reference-numeral 20 represents bolts extending through the integral and removable fish-plates into the cross-ties, which serve as suitable fastening means.

The manner of connecting the rails together will be readily apparent from the foregoing description, taken in connection with the accompanying drawings. 70

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention. 75

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is— 80

1. A rail-joint comprising a chair having a portion thereof bent upon itself and forming a fish-plate, bolts, passing through the portions bent upon themselves, and adapted for engagement with a tie, combined with a second fish-plate, and a bolt for holding said plates against the opposite sides of a rail, as set forth. 85

2. A rail-joint, comprising a chair having a portion thereof bent upon itself and forming a fish-plate, bolts, passing through said portions bent upon themselves, and adapted for engagement with a tie, combined with a second fish-plate, each fish-plate being bent upon itself twice in vertical planes, and bolts passing through the web of a rail and connecting said plates, as set forth. 90 95

3. A rail-joint comprising a chair having a portion thereof bent upon itself, and forming a fish-plate, a bolt, passing through such portions bent upon themselves, and adapted for engagement with a tie, a second fish-plate 100

resting upon said chair, and engaging an up-
turned edge of said chair, said plates each
being bent upon itself twice in vertical planes,
a bolt connecting said plates and designed to
5 hold vertical portions of the plates against
the under surface of the tread of a rail and
the flanges of the base of the rail, as set forth.

4. A rail-joint, comprising a chair having a
portion thereof bent upon itself, and forming
10 a fish-plate, said portion thus bent, being
bolted to the chair, a second fish-plate bolted
to the chair and engaging an upturned edge
of the latter, each of said plates being bent
upon itself twice in vertical planes, a bolt

passing through the adjacent vertically-dis- 15
posed portions of the plates on opposite sides
of the web of a rail, each plate being bent to
form a brace between the horizontal and outer
vertically-disposed portions of said plates, as
set forth. 20

In testimony whereof I have hereunto
signed my name in the presence of two sub-
scribing witnesses.

JOSEPH J. McDERMOTT.

In presence of—

JOHN GROETZINGER,
M. HUNTER.