

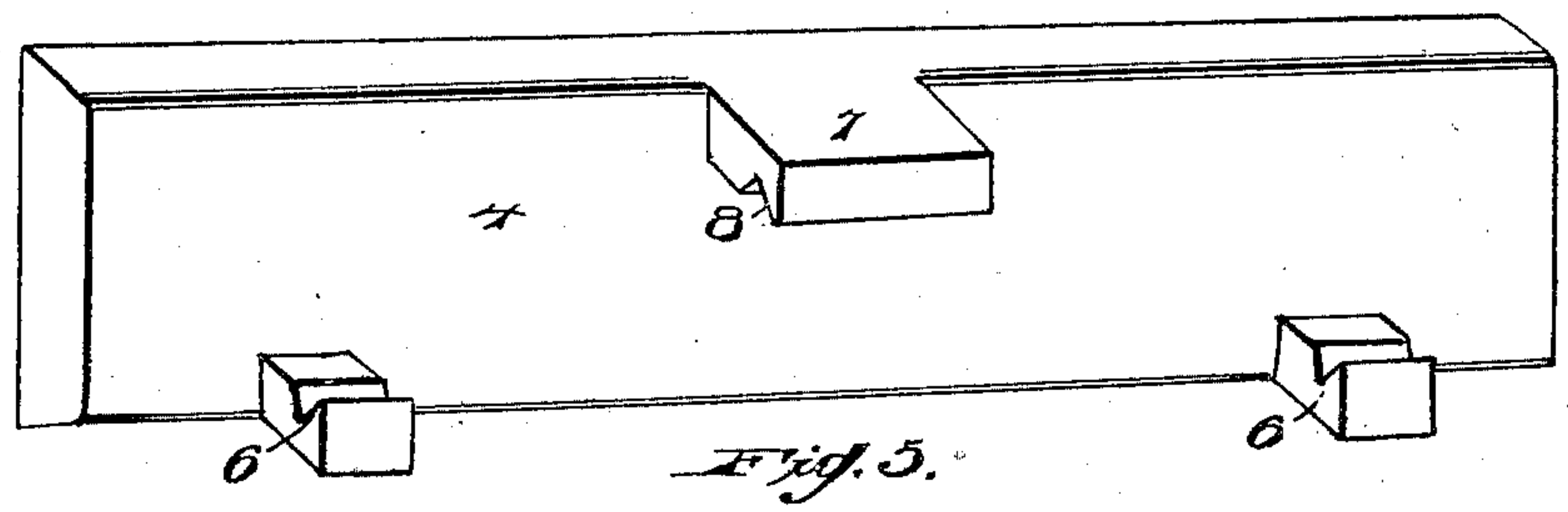
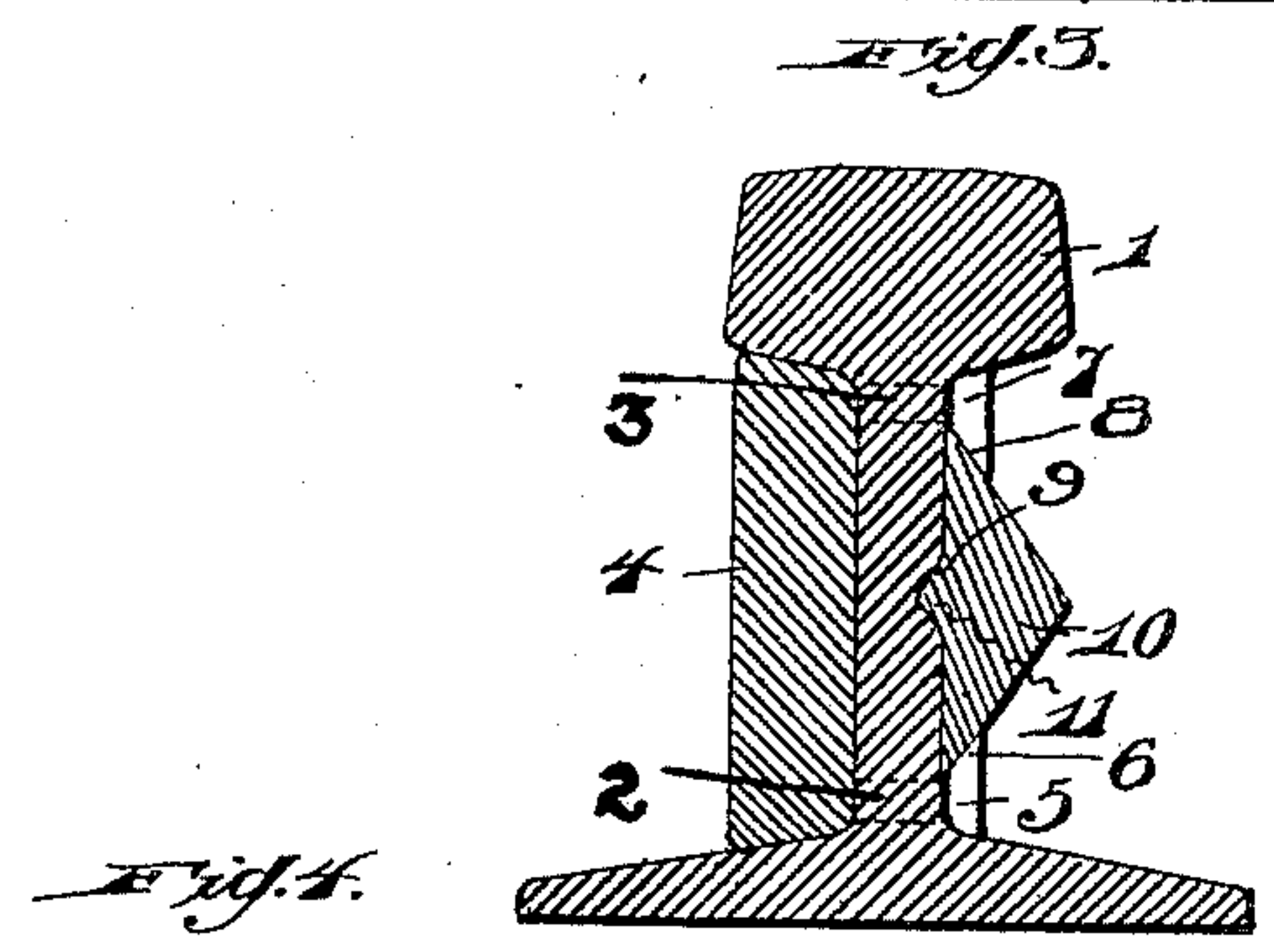
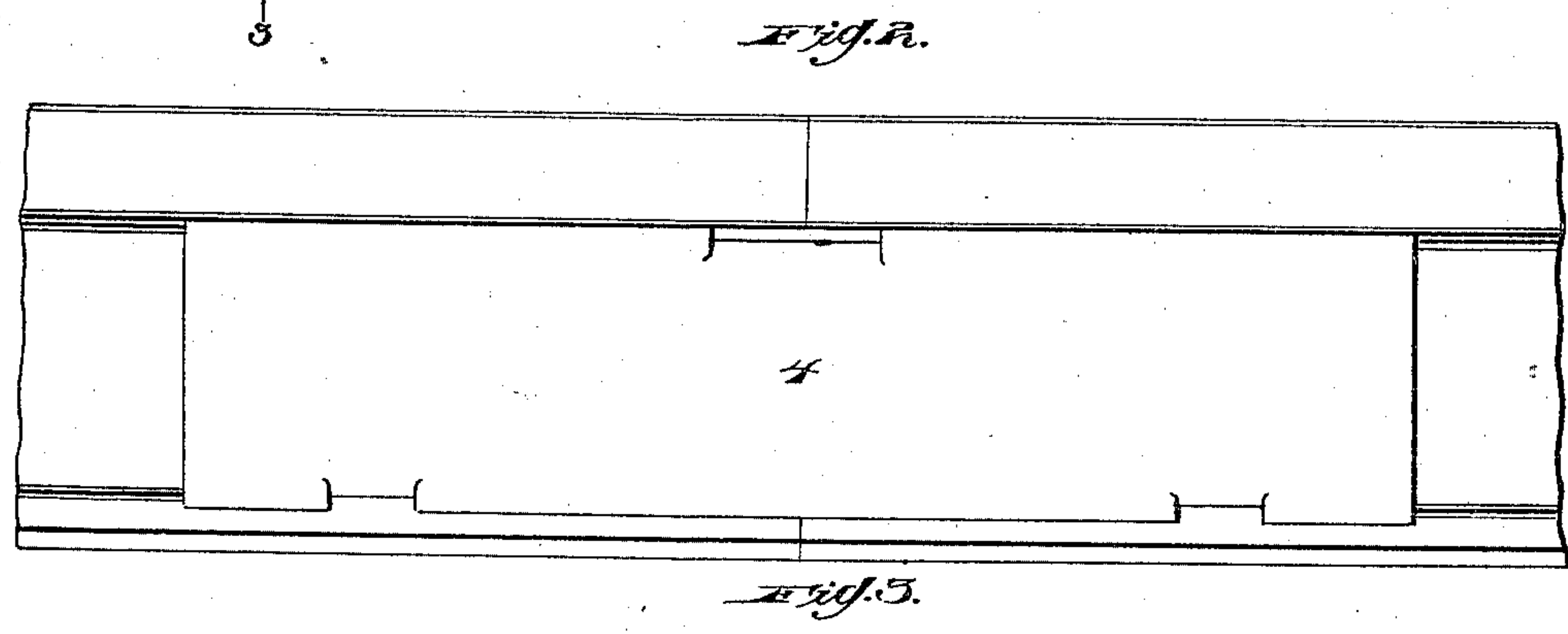
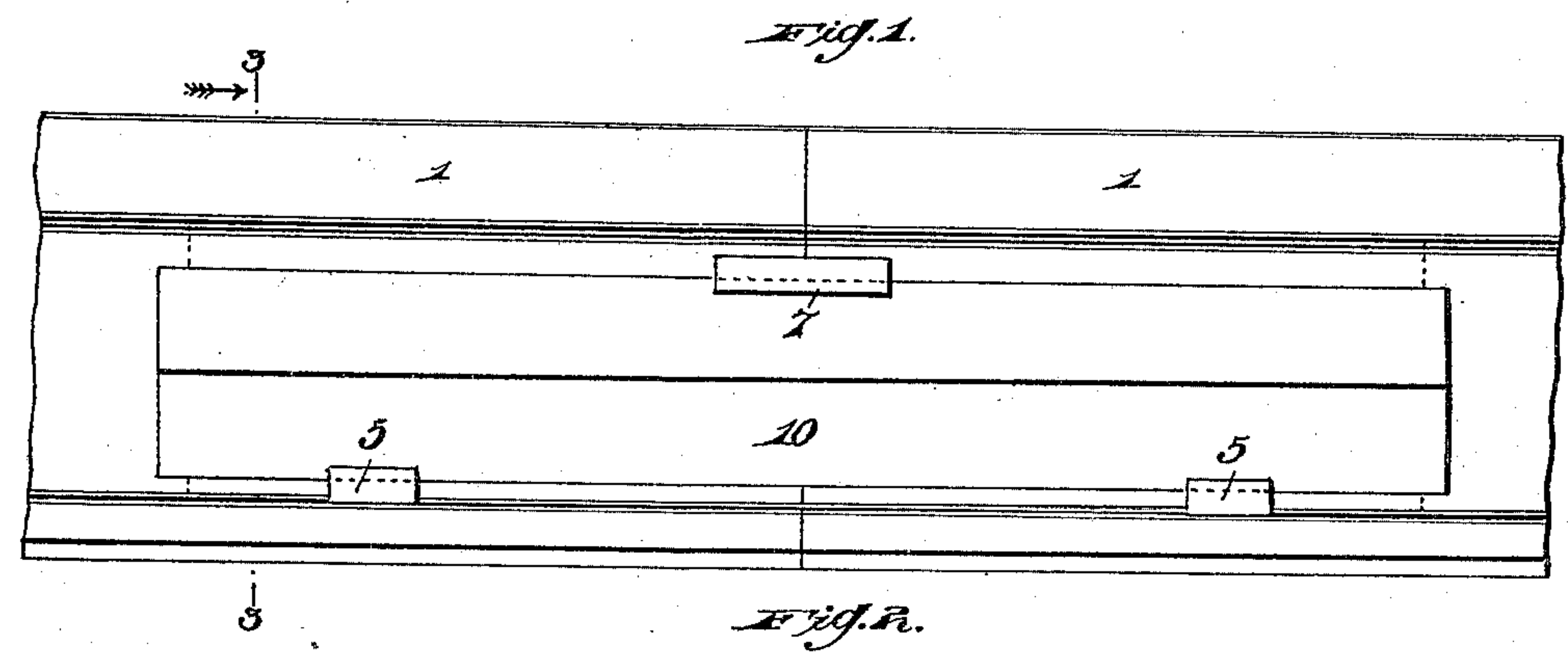
No. 682,400.

Patented Sept. 10, 1901.

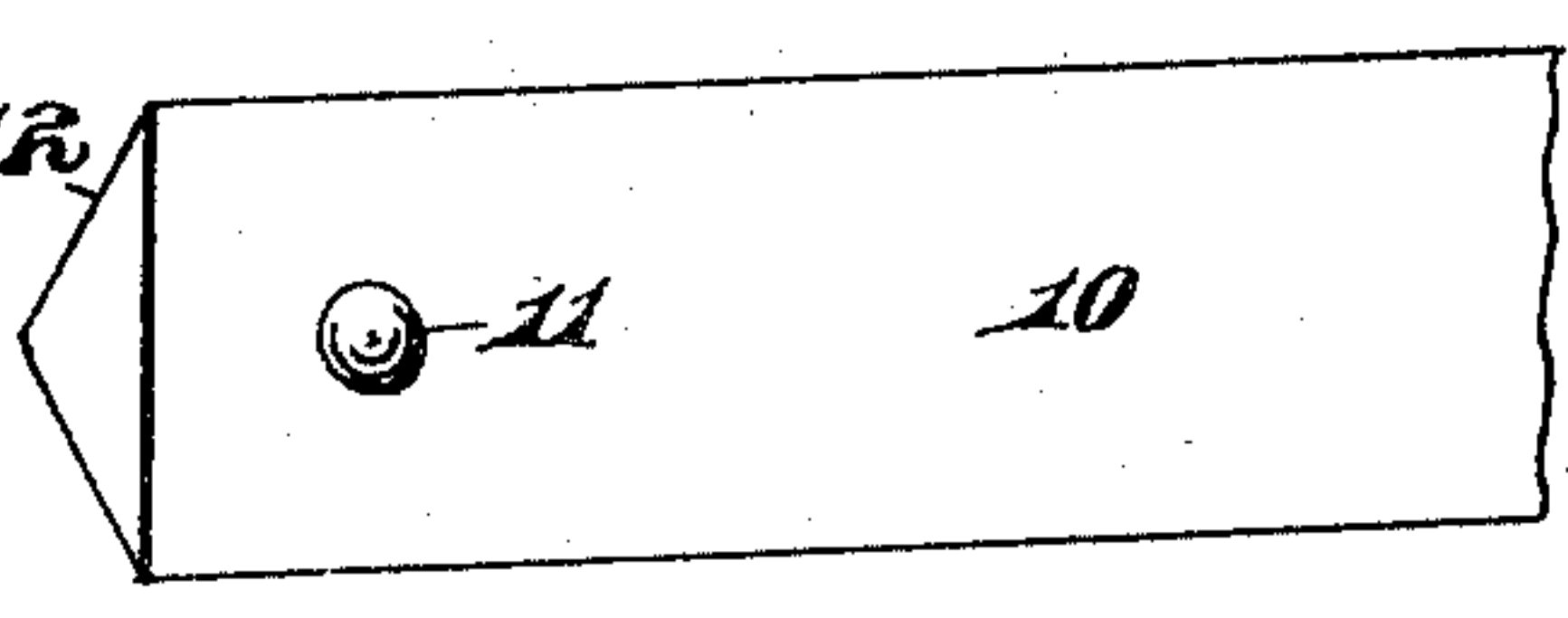
A. W. BEACH.
RAIL JOINT.

(Application filed July 12, 1901.)

(No Model.)



Witnesses:
J. P. Hoffman
E. S. Potter



Inventor
Albert W. Beach
By
A. C. Everett & Co.
Attys.

UNITED STATES PATENT OFFICE.

ALBERT W. BEACH, OF KNOXVILLE, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 682,400, dated September 10, 1901.

Application filed July 12, 1901. Serial No. 67,980. (No model.)

To all whom it may concern:

Be it known that I, ALBERT W. BEACH, a citizen of the United States of America, residing at Knoxville borough, 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.

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

The invention has for one object to construct a device of this character of two interlocking fish-plates.

Another object of the invention is to construct a device of this character that will be extremely simple in construction, strong, durable, and comparatively inexpensive to manufacture; furthermore, one that will be easily applied to the rails.

The invention further aims to provide a connection that will not permit the rails at the joint to be depressed in a manner to cause a jar or jolt that is experienced in rail-joints of the ordinary construction.

With the above and other objects in view the invention consists in the novel combination and arrangement of parts to be herein-after 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 side elevation of two sections of rails with my improved joint applied thereto. Fig. 2 is a similar view of the reverse side of the rail. Fig. 3 is a vertical sectional view taken on the line 3 3 of Fig. 1 looking in the direction of the arrow. Fig. 4 is a perspective view of the interlocking fish-plate. Fig. 5 is a similar view of a portion of the locking fish-plate.

In the drawings the reference-numeral 1 indicates the rails. These rails have formed in their web portions openings 2 2 at the base of the rail, and also have formed in their

web portion at the joint, at the under face of the tread of the rail, openings 3, which openings extend in alinement with one another, as shown in the drawings.

The reference-numeral 4 indicates the interlocking fish-plate, carrying on its inner side the integral lugs 5 5. These lugs 5 5 extend through the openings 2 2. The lugs 5 5 carry inclined faces 6 6.

The reference-numeral 7 indicates an inward extension formed centrally and at the upper end of the interlocking fish-plate 4. This inward extension 7 carries downwardly-extending flanged portion 8, formed at an angle.

The reference-numeral 9 represents a recess formed in the web of the rail.

The reference-numeral 10 indicates a triangular-shaped locking fish-plate, the inner face of which carries a projection 11, which is adapted to engage in the recess 9 and serves to lock this fish-plate to the web of the rail. This triangular locking fish-plate 10 carries beveled engaging faces 12, which are adapted to engage the inclined faces 6 and 8 of the interlocking fish-plate.

The manner of connecting the rails is as follows: The rails are placed together and the interlocking fish-plate applied in position, the lugs 5 extending through the openings 2 and the inward extension 7 extending through the openings 3. The locking fish-plate is then applied, the inclined faces 6 and 8 engaging the beveled faces 12 of the locking fish-plate. This fish-plate is driven or wedged into position until the projection 11 coincides with the recess 9, when the same will become locked. When it is desired to remove the rails, the locking fish-plate is driven in the opposite direction, thereby disengaging the interlocking fish-plate, when it may be easily removed from engagement with the rails.

The many advantages obtained by the use of my improved device will be readily apparent from the foregoing description, taken 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 invention.

Having fully described my invention, what

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

1. In a rail-joint, the combination with the rails having openings formed in the webs thereof, of a fish-plate, upper and lower engaging faces thereon, inwardly - extending lugs carried by said fish-plate, an inward extension made integral with the upper end of the said fish - plate, engaging faces on said lugs and extension, a substantially triangular locking-plate engaging said lugs and extension, and means whereby said locking-plate is fastened to the rail, substantially as described.
2. In a rail-joint, the combination with the rails having openings formed in the upper and lower edges of the web thereof, of an interlocking fish-plate carrying inwardly - extending lugs on the lower edge thereof and an inward extension on the upper edge thereof, said lugs and extension engaging in the said openings, and a locking-plate engaging said lugs and extension and the web of the rail, substantially as described.
3. In a rail-joint, the combination with the rails having openings formed therein, an interlocking fish - plate, inwardly - extending

lugs, an inward extension through said openings in the rail, a triangular-shaped locking-plate engaging said lugs and inwardly - extending portion, and means whereby said locking-plate is fastened to the rails, substantially as described.

4. In a device of the character described, the combination with the rails having openings formed in the webs thereof, of a fish-plate, upper and lower engaging faces thereon, lugs having notched faces made integral with the lower end of the said fish-plate, an integral inward extension carried by the upper end of said fish-plate, a notched face on said extension, the said lugs and extension adapted to engage in the said openings, a locking-plate, upper and lower engaging faces carried by said plate, and means for locking said plate to the rails, substantially as described.

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

ALBERT W. BEACH.

Witnesses:

JOHN NOLAND,
E. E. POTTER.