

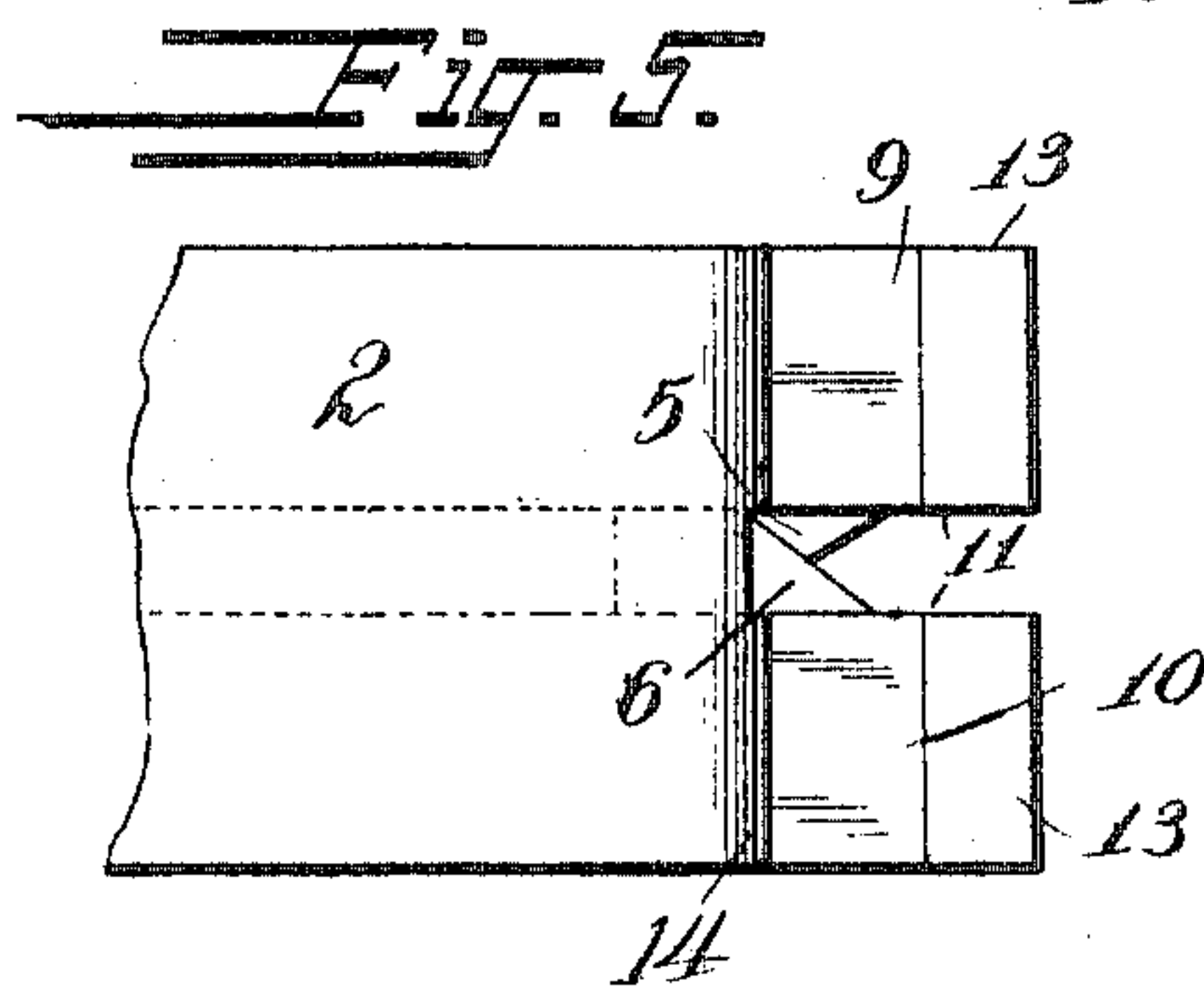
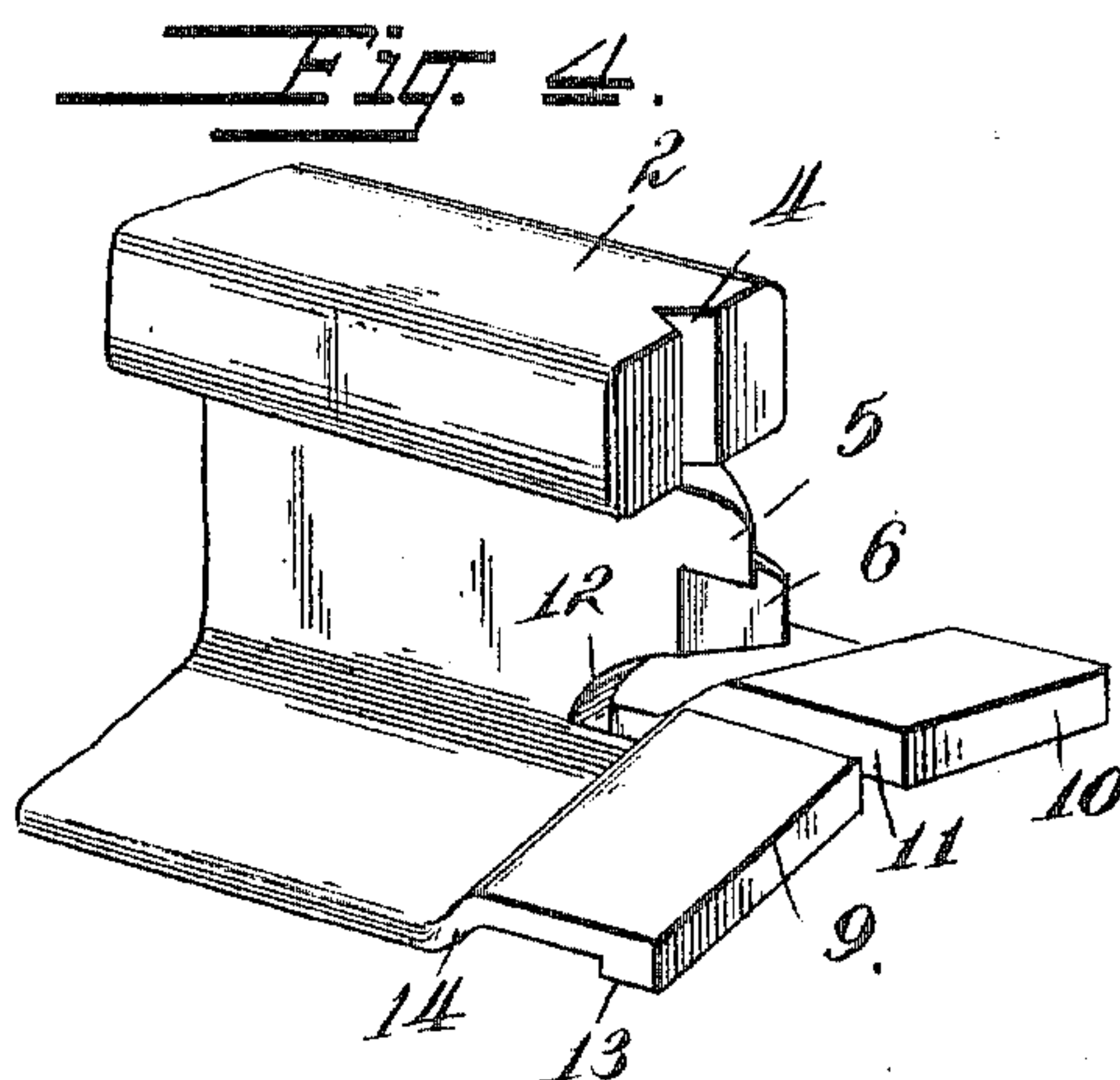
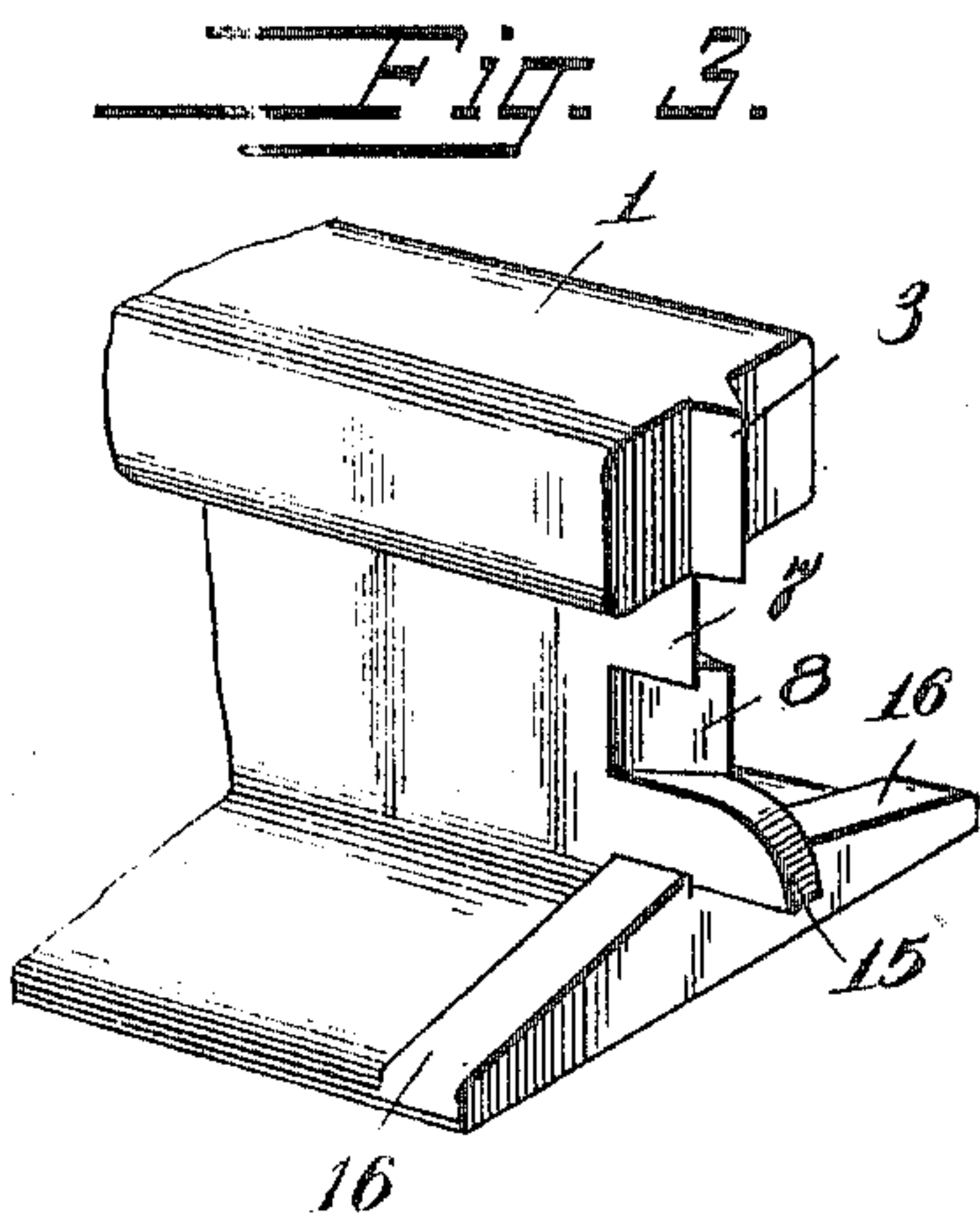
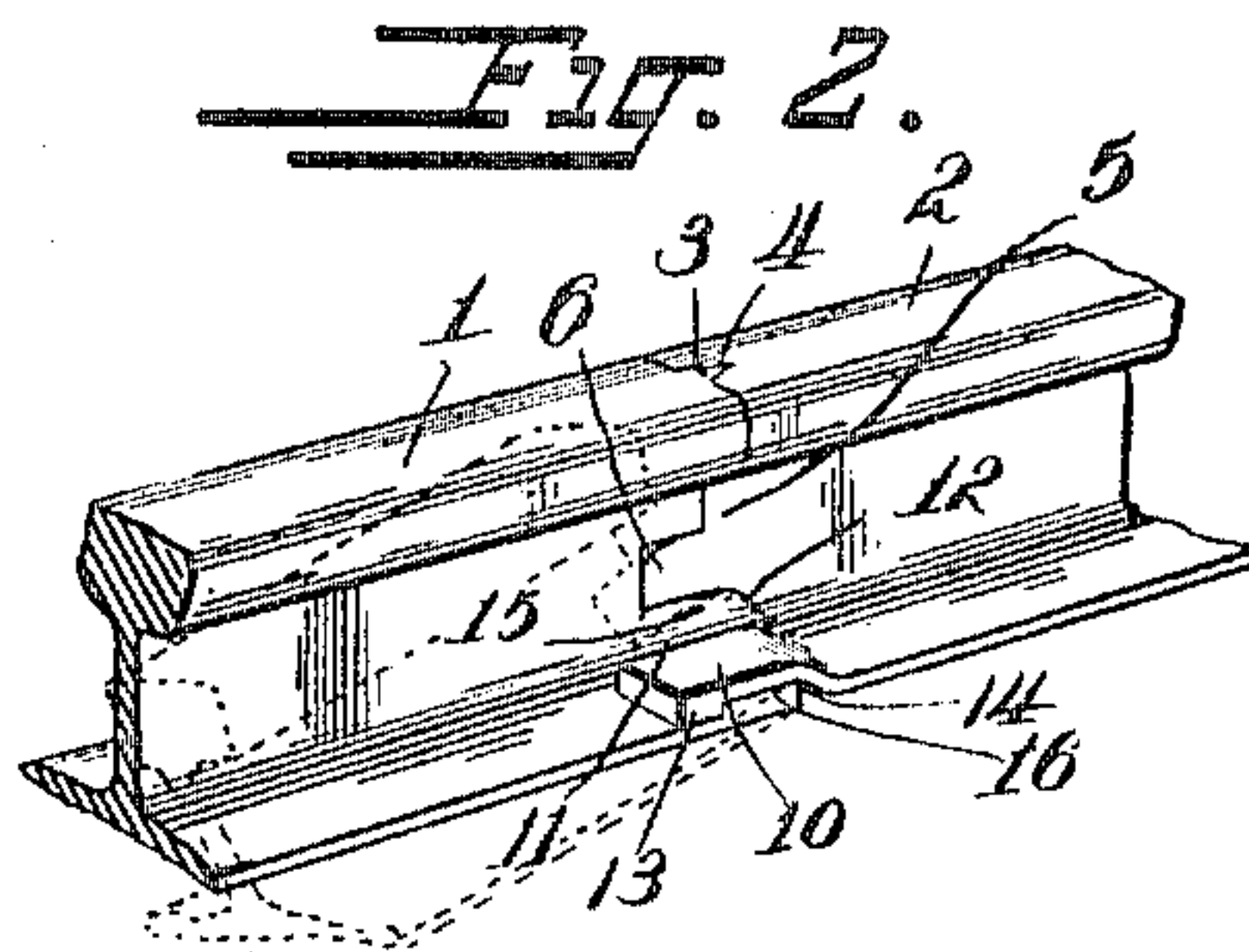
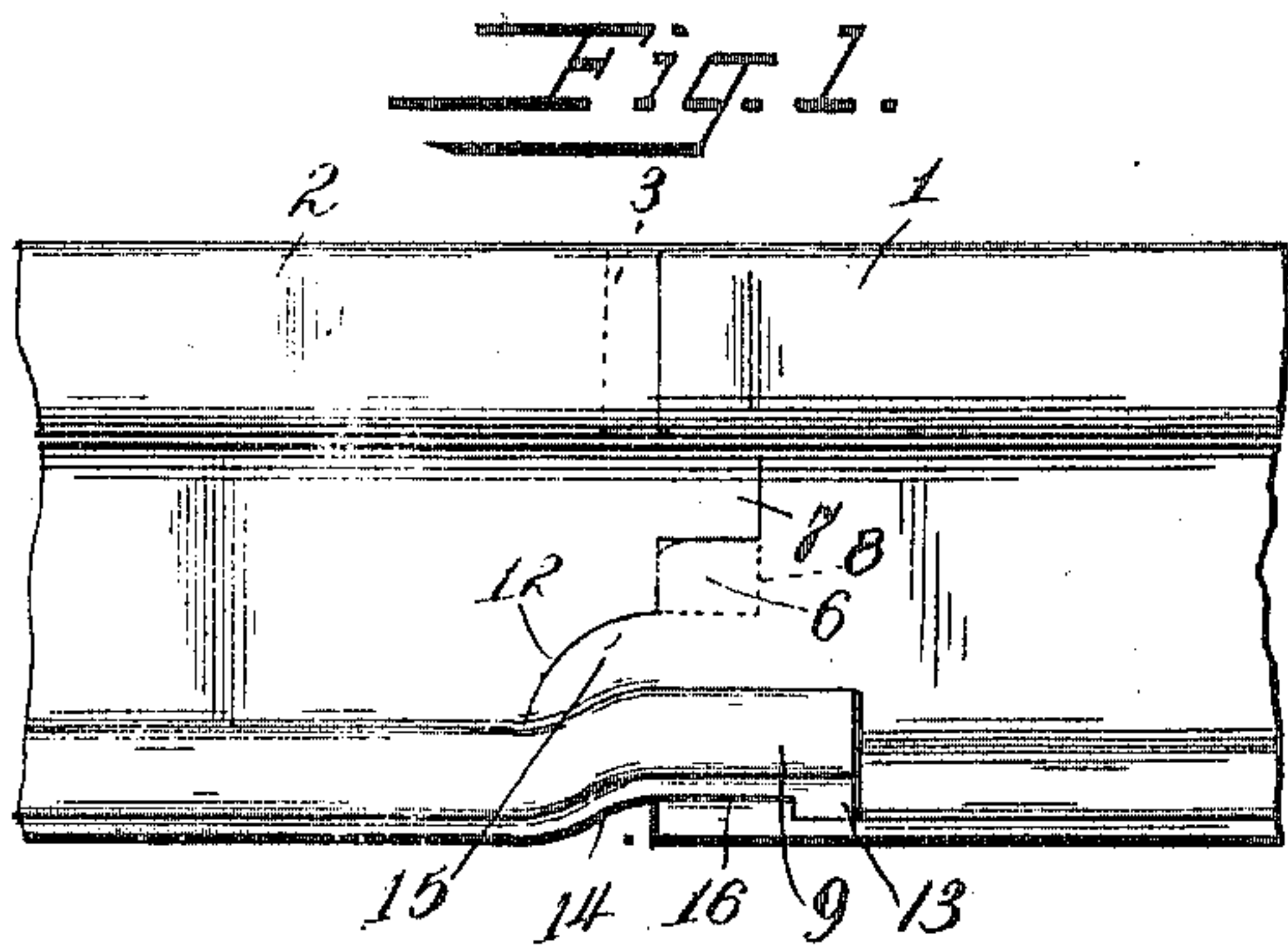
No. 811,779.

PATENTED FEB. 6, 1906.

P. E. HARPER.

RAIL JOINT.

APPLICATION FILED SEPT. 19, 1905.



Witnesses

Milton Gencin

Geo. A. Hamilton

Inventor

Percy E. Harper

By Geo. P. Whittier
his Attorney

UNITED STATES PATENT OFFICE.

PERCY E. HARPER, OF WELLSTON, OHIO.

RAIL-JOINT.

No. 811,779.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed September 19, 1905. Serial No. 279,091.

To all whom it may concern:

Be it known that I, PERCY E. HARPER, a citizen of the United States, residing at Wellston, in the county of Jackson and State of Ohio, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to rail-joints.

My object is to provide an improved rail-joint devoid of fish-plates of any kind which will have novel interlocking members on the rail-bases, webs, and heads at the meeting ends of the rails, whereby movement of the rails in any direction whatsoever is absolutely prevented when they are spiked to the ties; but the invention also contemplates an improved rail-joint adaptable for rapid and easy assembly or separation when desired.

The invention is set forth fully hereinafter and its novel features are recited in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation of the rail-joint with the parts locked together; Fig. 2, a perspective illustrating the manner of locking or unlocking the joint; Figs. 3 and 4, perspectives of the respective rail ends. Fig. 5 is a bottom view of the rail end of Fig. 4, showing the formation of the two overlapping members.

The rail ends are shown at 1 and 2, the former having at the end of its head a vertically-disposed beveled projection 3 and the latter having a corresponding notch or cavity 4 in the end of its head to receive said projection 3. Projecting from the end of the web of the rail end 2 are oppositely-beveled locking-lugs 5 and 6, disposed one above the other. The end of the web of rail end 1 has oppositely-beveled cut-away portions 7 and 8, adapted to be engaged by the lugs 5 and 6. The base-flanges of rail end 2 are extended beyond the said rail end at 9 and 10 in an upwardly-offset manner, being separated by a space 11 substantially as wide as the thickness of the web of the rail, and the rail-web is undercut at 12 beneath the lower lug 6. The lateral upper and under slopes of the parts 9 and 10 are substantially the same as the slope of the parts of the rail-base and parallel thereto; but the outer ends of the said projecting parts 9 and 10 are thickened at 13, which renders said parts 9 and 10 of hook-like form. The bottom of the base of rail end 2 is preferably curved or rounded at 14 to facilitate engaging and disengaging of the respective rail ends. Projecting from the web of rail end 1

is a locking member 15, adapted for reception in the undercut portion 12. The base-flanges of rail end 1 have raised or thickened portions 16, over which the thickened portions 13 are adapted to hook.

When the respective rail ends are to be engaged, they are tilted and brought downwardly together, whereupon the parts engage, as shown in Fig. 1. To unlock the rail ends, they are tilted upwardly and may then be easily disengaged.

The formation and positioning of the different locking parts prevents endwise, lateral, or vertical separation of the rail ends, and the passage of rolling-stock over the rails tends to more firmly lock the rail-joint.

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

1. In a rail-joint, the combination of rail ends, one of which has engaging devices on the respective portions of its base-flange and the other having the respective portions of its base-flange extended beyond the rail end and separated by a slot and adapted to overlap the respective portions of the base-flange of the other rail end and engage the engaging devices thereon, the aforesaid slot being adapted to receive the web of the opposite rail end.

2. In a rail-joint, the combination of rail ends, one of which has raised parts on the respective portions of its base-flange and the other having the respective portions of its base-flange offset upwardly and extended beyond the rail end and provided with hook-shaped ends, said extended portions being separated by a slot which is adapted to receive the web of the opposite rail end and said hook-shaped ends being adapted to hook over and engage the raised parts on the respective portions of the base-flange of the other rail end.

3. In a rail-joint, the combination of rail ends, one of which has raised parts transverse to its base-flanges, a web portion projecting beyond the ends of said flanges, oppositely-beveled members on the end of its web above said projecting portion, and an upright projection on the end of its head; the other rail end having its base-flanges extended beyond its web, transversely grooved on the under side and separated by a central slot, oppositely-beveled members on the end of the web, and an upright notch in the end of its head.

4. In a rail-joint, the combination of rail ends, each having oppositely-beveled members on the end of its web which are disposed one above the other, those on one rail end being adapted to engage those on the other rail end.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

PERCY E. HARPER.

Witnesses:

W. L. TURNER,
W. H. SHRADER.