

No. 776,098.

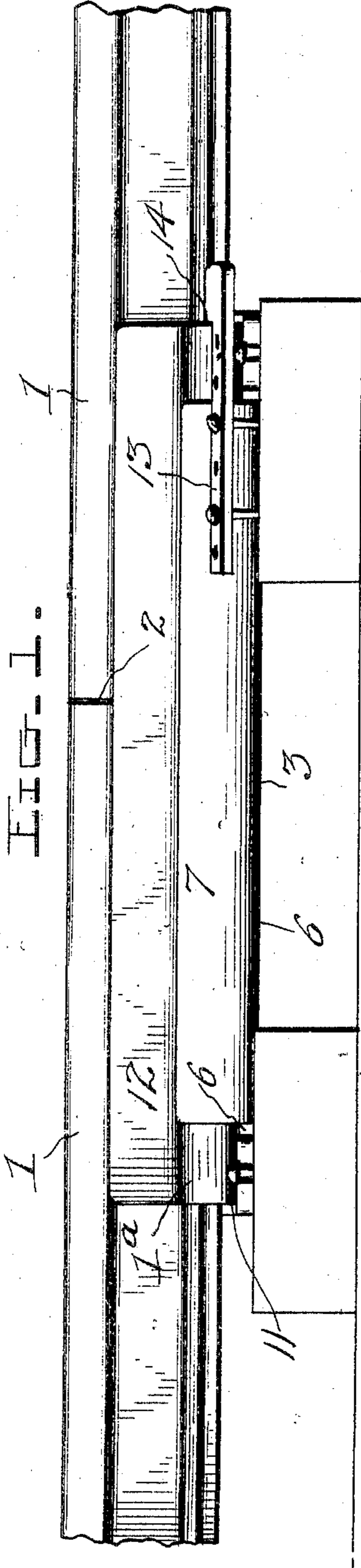
PATENTED NOV. 29, 1904.

S. WALLWORK.  
RAIL SPLICE.

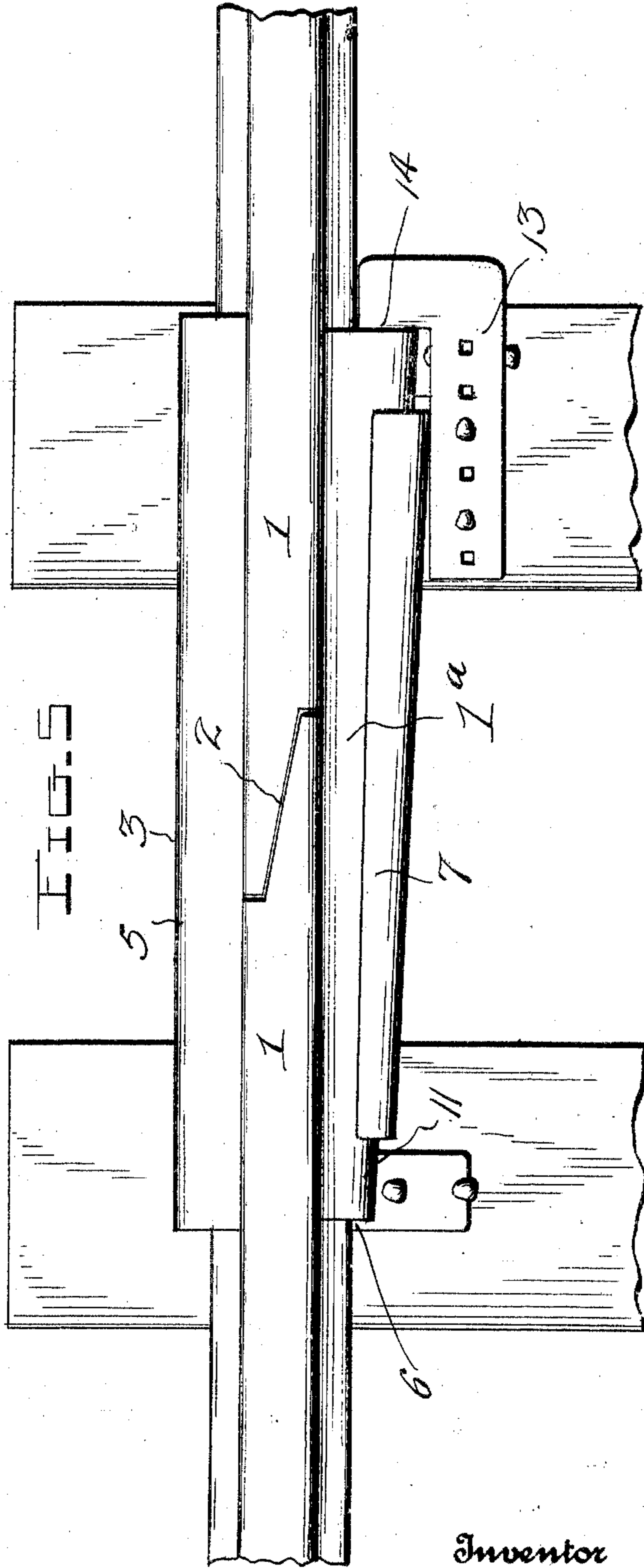
APPLICATION FILED AUG. 8, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses  
*J. H. Griesbayer, Jr.*  
*C. H. Griesbayer.*



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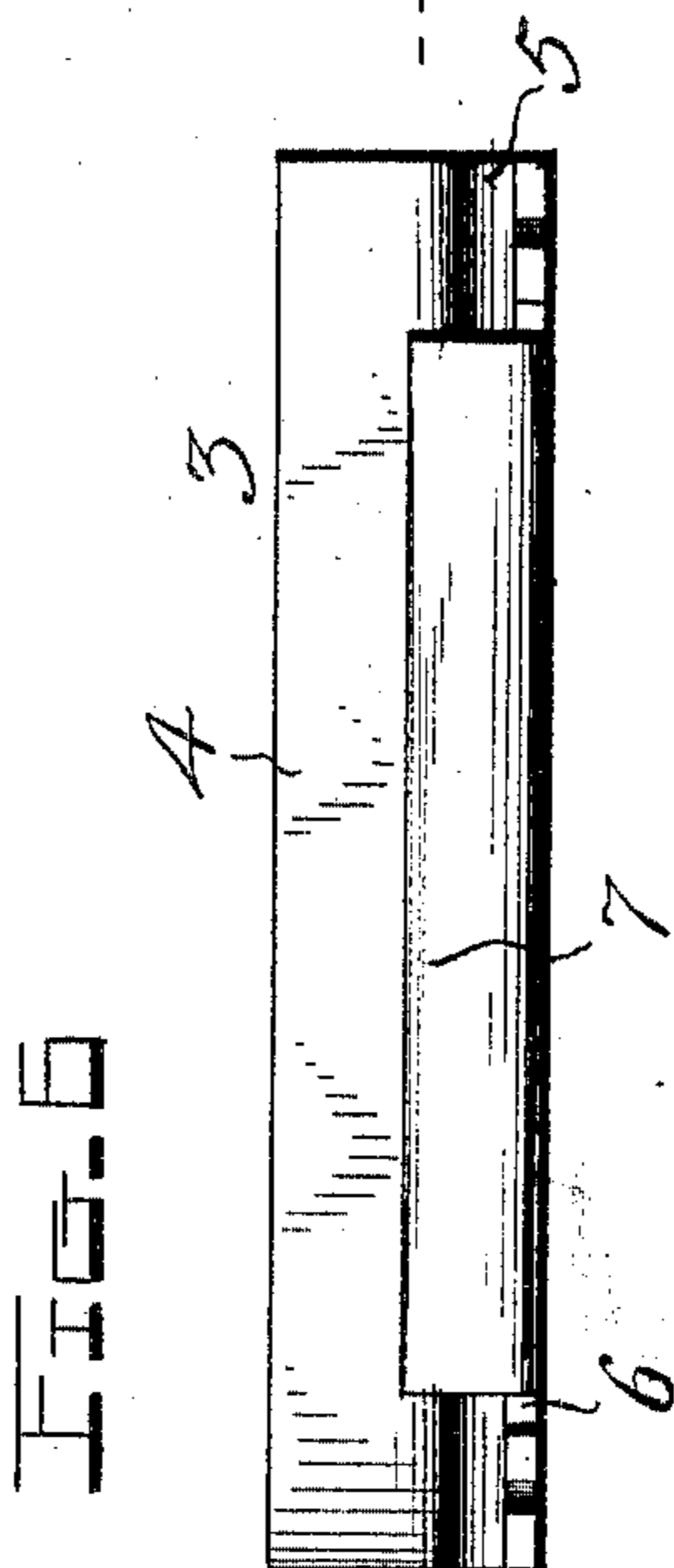
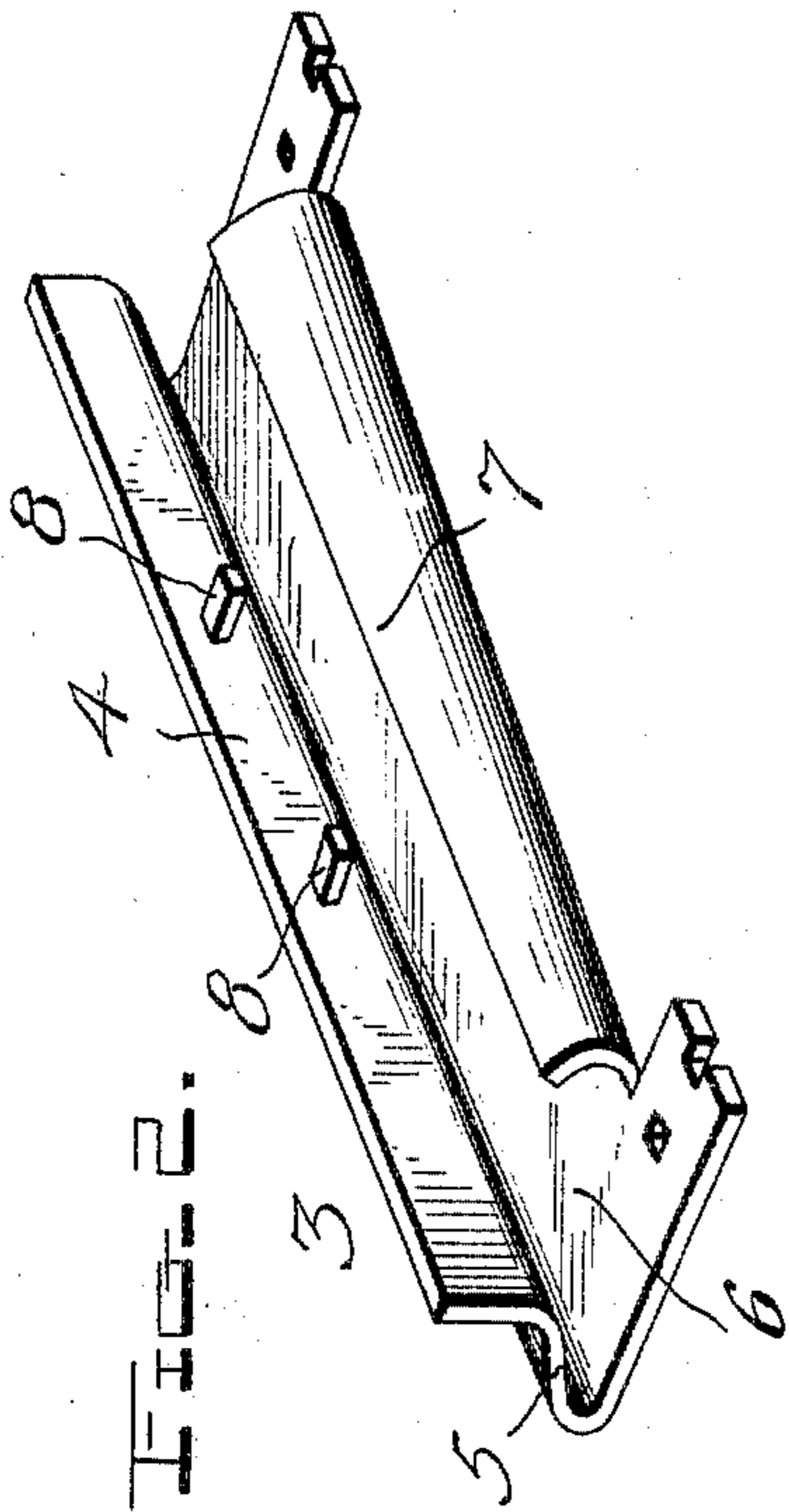
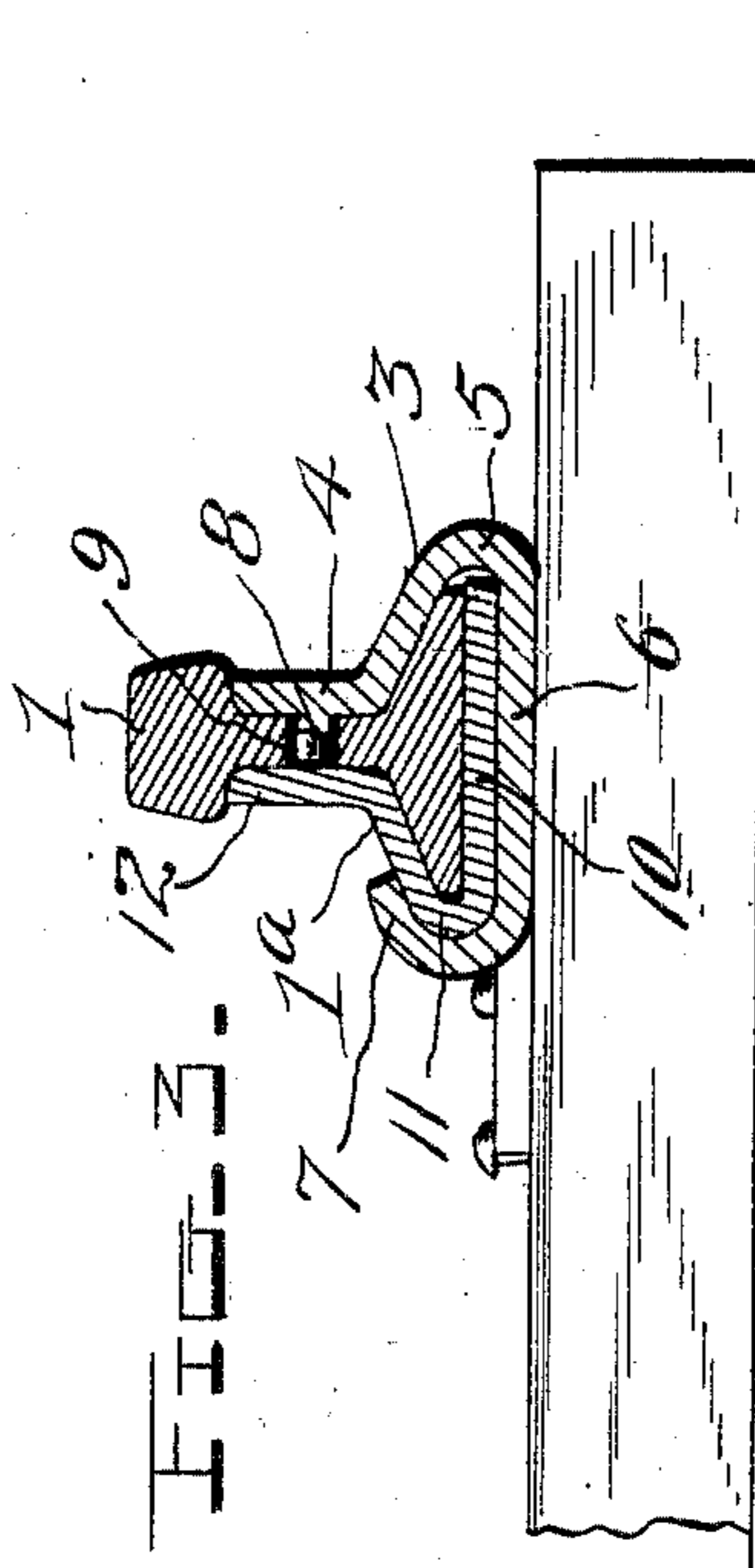
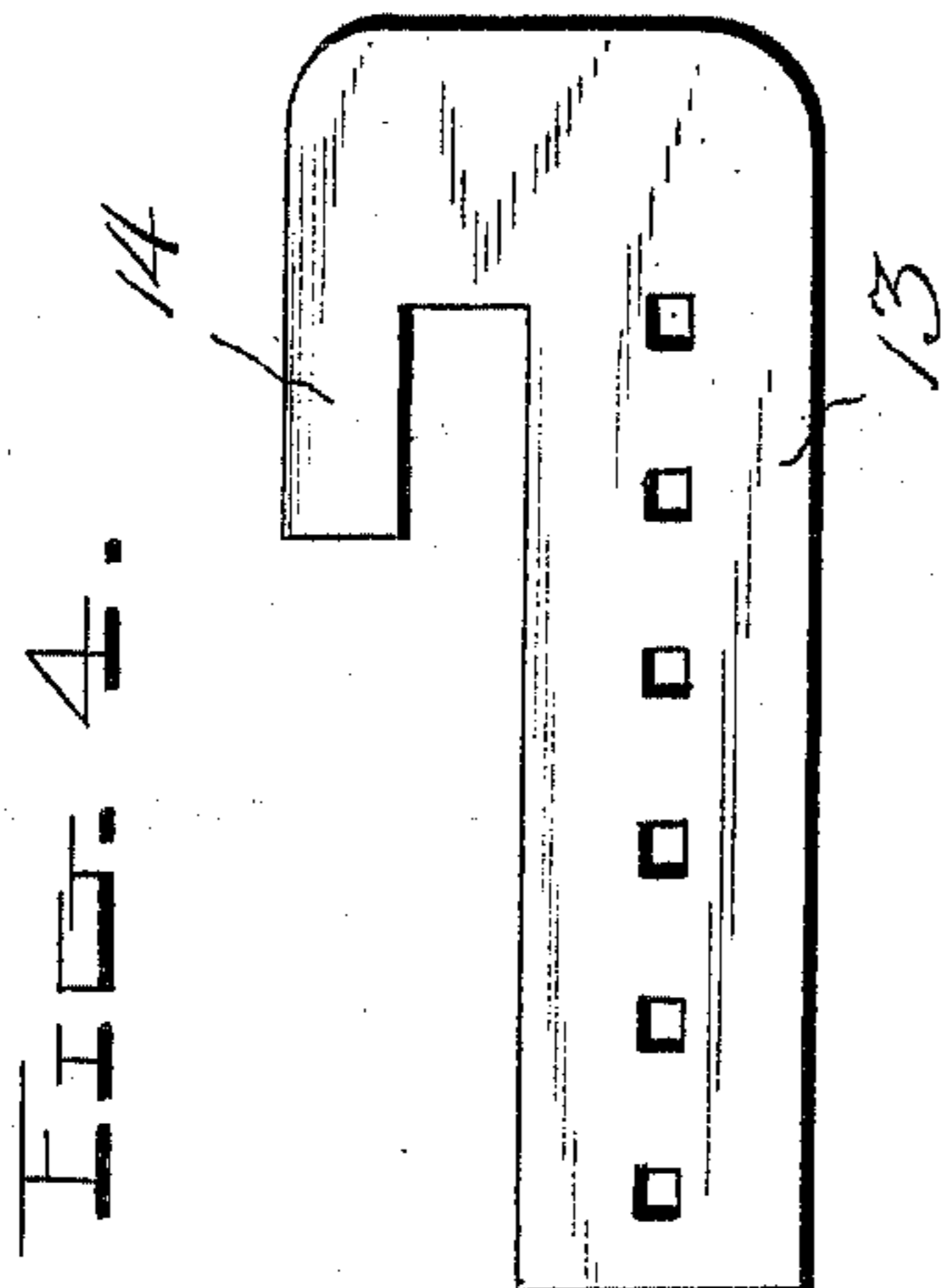
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APPLICATION FILED AUG. 8, 1904.

NO MODEL.

2 SHEETS—SHEET 2.



Witnesses  
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# UNITED STATES PATENT OFFICE.

SAMUEL WALLWORK, OF BROCKWAYVILLE, PENNSYLVANIA.

## RAIL-SPLICE.

SPECIFICATION forming part of Letters Patent No. 776,098, dated November 29, 1904.

Application filed August 8, 1904. Serial No. 219,927. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL WALLWORK, a citizen of the United States, residing at Brockwayville, in the county of Jefferson and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Splices; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to rail joints or splices; and the particular object of the same is to provide a strong durable device for this purpose which will not require the use of rivets for holding the meeting ends of the rails together.

Another object of the device is to provide means for securing the meeting ends of the rails together in a reliable and durable manner by means of a device which will not require skilled labor in assembling the parts and which will be a strong, reliable, and efficient joint when assembled or connected.

I attain these and other objects by means of the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a rail-joint made in accordance with my invention. Fig. 2 is a perspective view of the outside plate or chair for the rail. Fig. 3 is a cross-section through the plates and the rail. Fig. 4 is a plan view of a key used to secure the two plates in position. Fig. 5 is a plan view of the rail-joints, showing the key in place secured to a tie; and Fig. 6 is a side view of a modified form of the outer plate or chair.

Referring to the drawings for a more detailed description of the invention, the numeral 1 designates the end of the rail, and 2 is the scarf-joint of the meeting ends of said rails. It will be understood, of course, that for the purpose of my invention the rails may be provided with plain abutting ends. The outer plate or chair 3 for my joint is made from a single piece of sheet metal and provided with a flange 4, conforming to the web of the rail and downwardly-curved portion 5, which conforms to the flange of the rail and base portion 6, upon which the bottom of the rail rests, and an inwardly curved or hooked por-

tion 7, which forms a keeper for a locking-plate 1<sup>a</sup>. The base portion 6 at opposite ends of the plate 1 is extended outwardly beyond the hook or keeper 7, and its extending ends are perforated to form spike-holes for securing the plate to contiguous ties. Lugs 8 8 extend inward from the flange 4, and said lugs are adapted to engage perforations 9 9 in the ends of the rail-sections. It will be noticed that the plate 3 tapers slightly toward one end in order that the wedge piece or keeper 1<sup>a</sup> when inserted in place will hold the ends of the rails firmly in place. The wedge-piece 1<sup>a</sup> is also made of a single piece of sheet metal and comprises a base-flange 10, a curved portion 11, which conforms substantially to the upper surface of the flange of the rail and a substantially vertical flange 12, which conforms to the shape of the web of the rail. This wedge 1<sup>a</sup> is inserted within the outer plate, the base-flange being inserted between the bottom of the rail and the base portion of the outer plate and is then driven toward the smaller end of the outer plate to wedge the two parts together.

When firmly connected and spiked down to the ties, the key 13 is inserted within the outer end of the wedge at the side of the flange of the rail and is then spiked down to the tie to hold said key in place. This key 13 consists of a flat piece of sheet metal having a hooked end 14 and a shank 13, said shank being provided with spike-holes which permit considerable range of the adjustment of the key longitudinally of the splice.

As shown in Fig. 6 of the drawings, the lugs 8 8 are omitted, and it has not been deemed necessary to use these lugs in all cases, as the joint can be securely connected without using the lugs and without forming holes in the ends of the rails.

From the foregoing description it will be obvious that my rail-joint is comparatively simple in construction, may be quickly assembled for connecting the ends of rails in a firm and reliable manner, and that the device may be used for connecting rails already in use without requiring a removal of the rails.

Having thus described my invention, what

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

1. A rail-joint comprising an outer plate adapted to partially surround the rail at the joint and provided with lugs to engage the rail ends and a keeper, a wedge-piece adapted to slide within the outer plate and engage the keeper and a key inserted in one end of the wedge-piece and adapted to be connected to a tie, substantially as described.

2. A rail-joint comprising a sheet-metal chair narrower at one end than the other and adapted to be secured to contiguous ties, means for connecting the meeting ends of rails to said chair, a wedge adapted to be inserted within the chair under the rails and wedged therein and a key having a hooked end engaging the end of the wedge and connected to a tie, substantially as described.

3. A rail-joint comprising a chair for partially surrounding the rail, means at the opposite ends of said chair for connecting it to contiguous ties, a keeper on said chair, a wedge-piece having a base-flange and designed to engage the chair and to be driven therein to wedge the two parts and the rail-joint together, and a key having a hooked end and a shank provided with a series of spike-holes, said key having its hooked end engaging the wedge portion of the joint and being connected to a tie by spikes, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

SAM. WALLWORK.

Witnesses:

A. R. CHAPIN,  
J. H. MILLER.