

C. DETWILER.  
RAIL JOINT.  
APPLICATION FILED FEB. 16, 1911.

993,040.

Patented May 23, 1911.

2 SHEETS—SHEET 1.

FIG. 1.

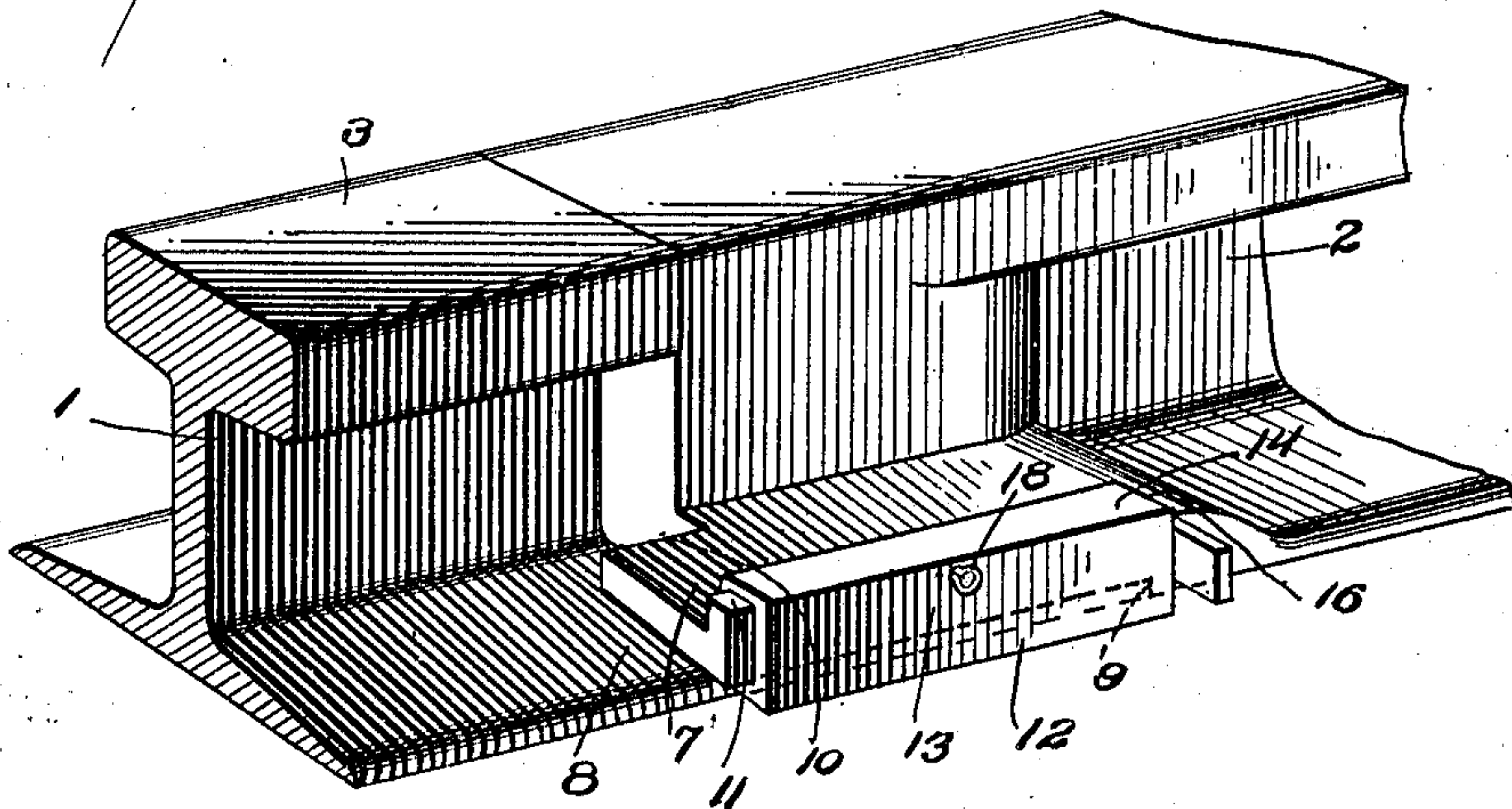


FIG. 2.

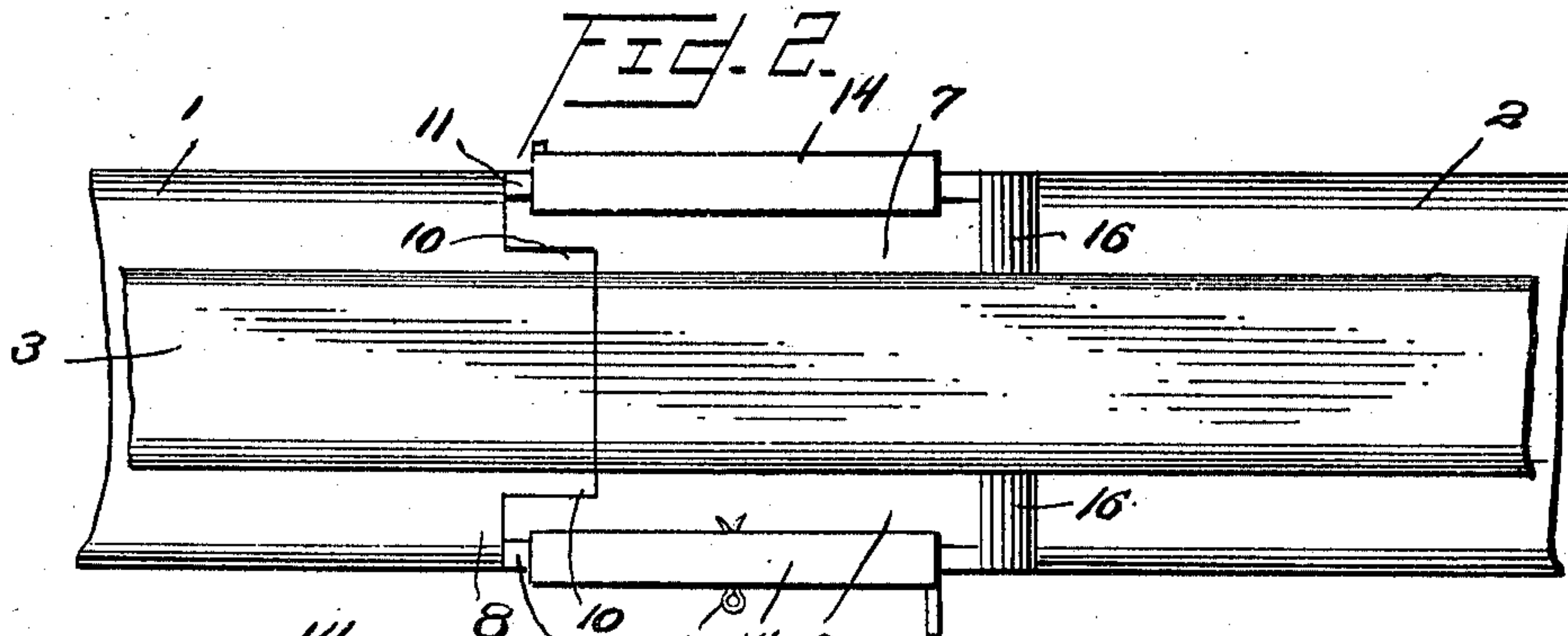
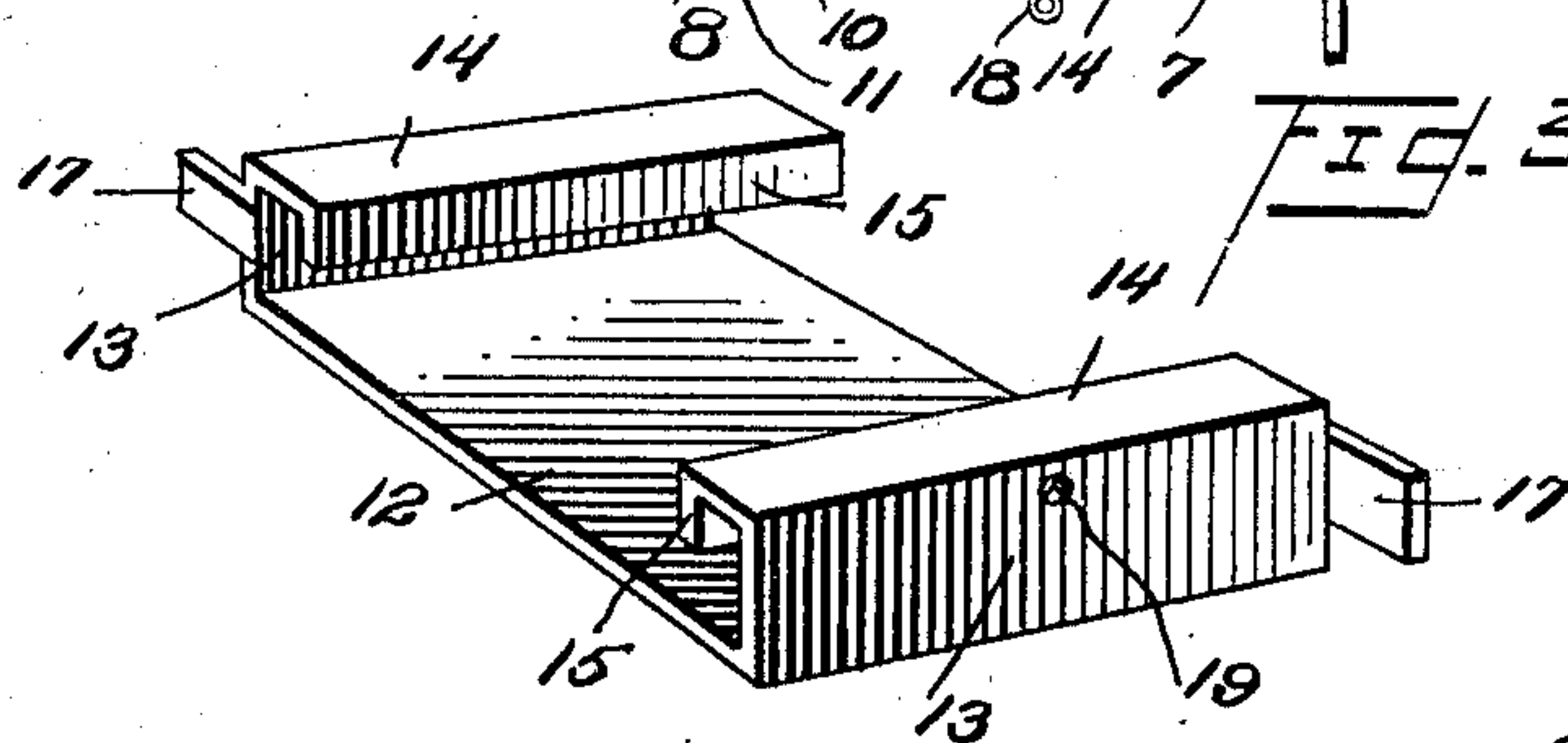


FIG. 3.



Witnesses

H. Strauss  
R. H. Krenkel.

Inventor  
Clayton Detwiler

By Joshua R. F. Fott, Attorney

C. DETWILER.

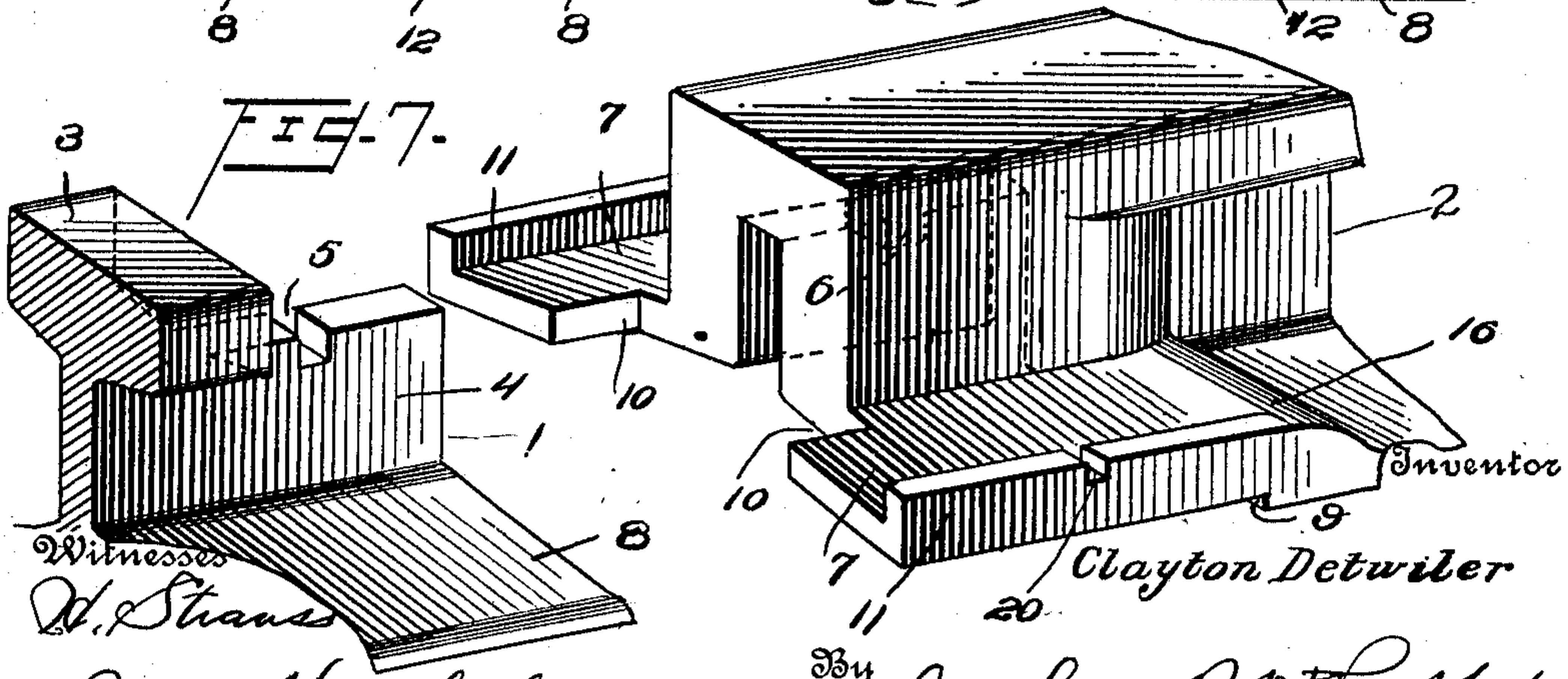
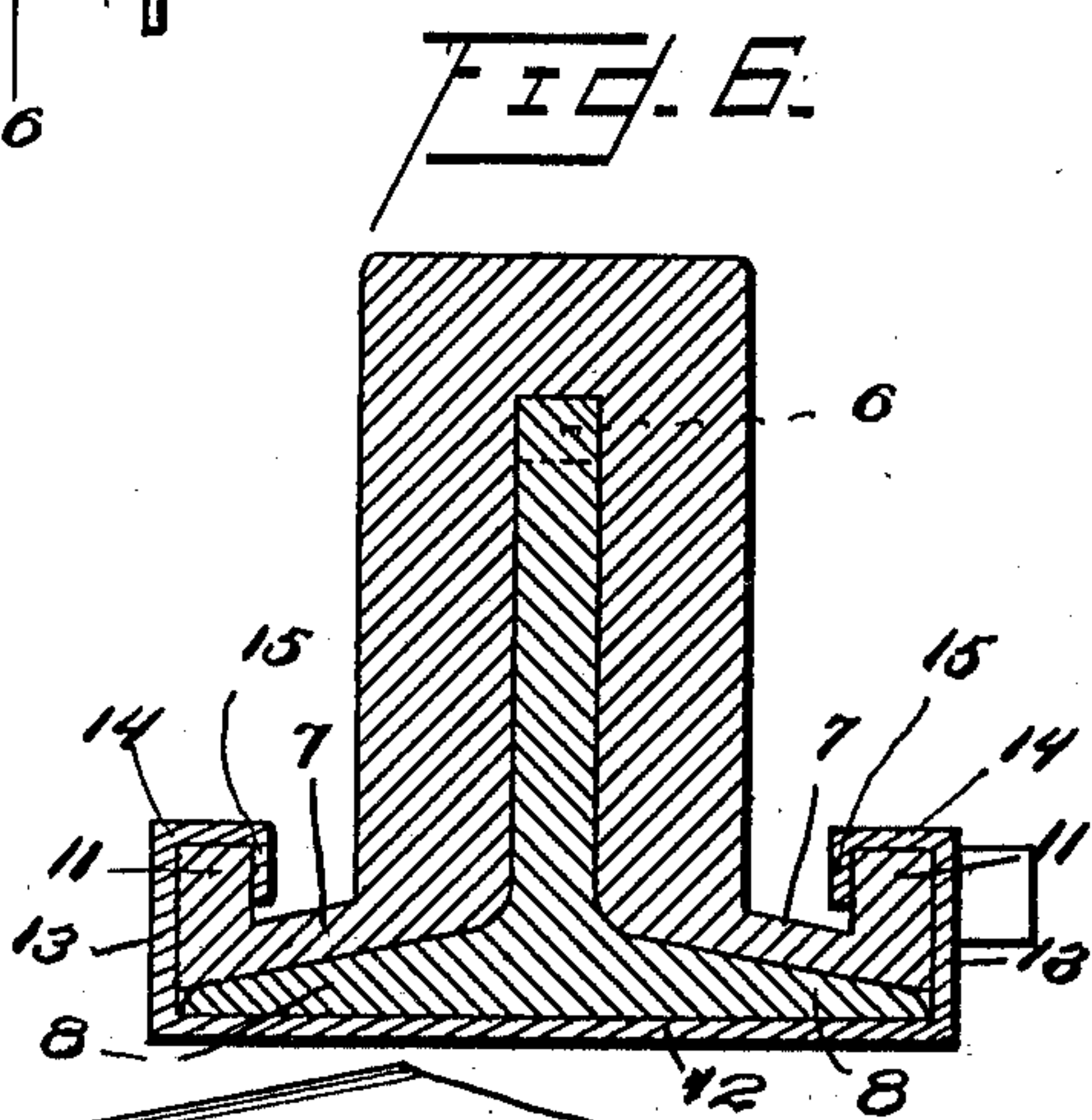
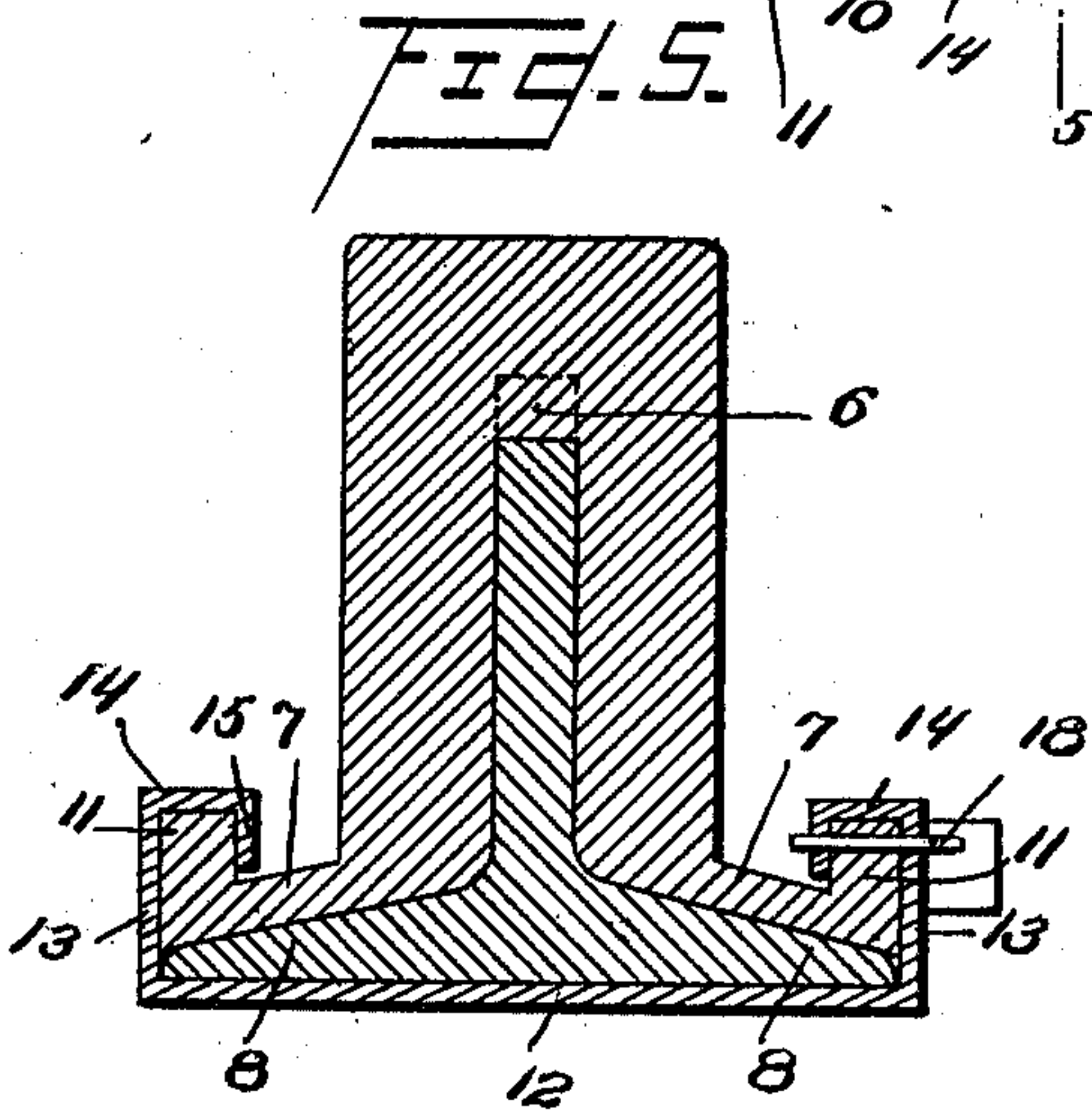
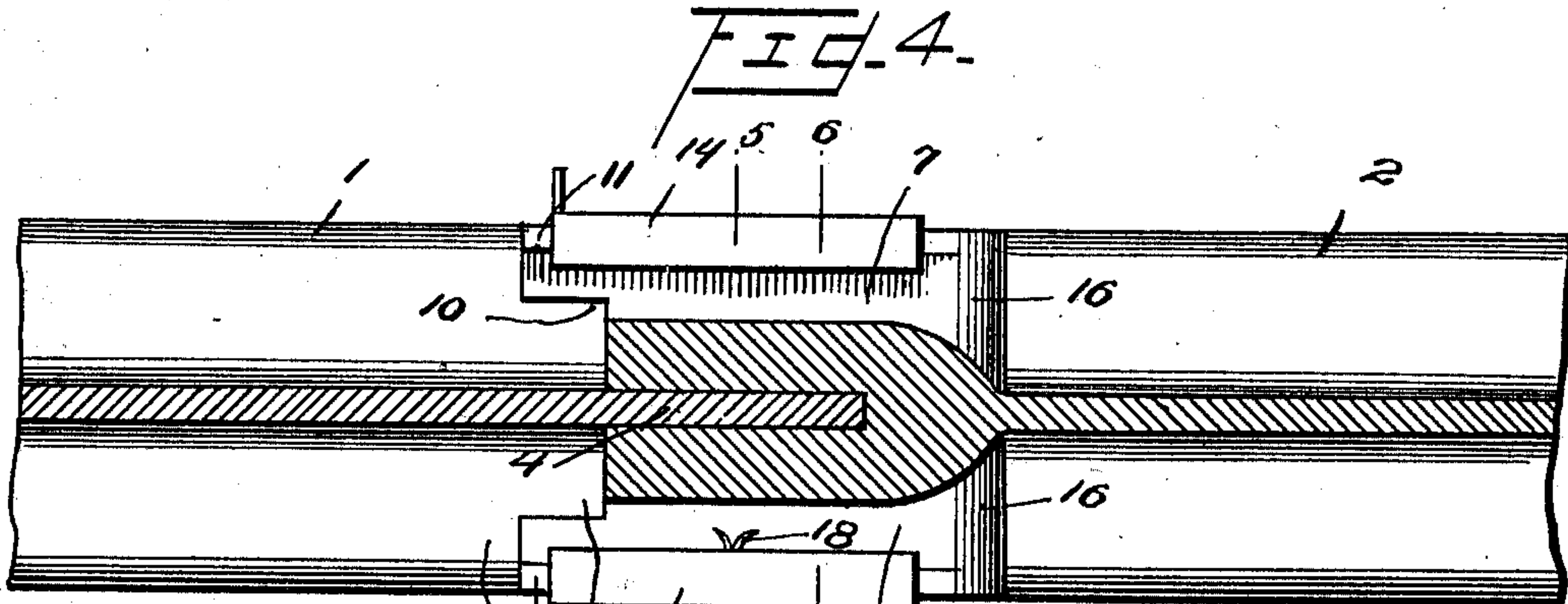
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Witnesses  
W. Strauss

R. H. Krenkel.

By

Joshua R. V. P. H.  
Attorney



# UNITED STATES PATENT OFFICE.

CLAYTON DETWILER, OF PHILADELPHIA, PENNSYLVANIA.

## RAIL-JOINT.

993,040.

Specification of Letters Patent.

Patented May 23, 1911.

Application filed February 16, 1911. Serial No. 608,939.

*To all whom it may concern:*

Be it known that I, CLAYTON DETWILER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

My invention relates to improvements in rail joints, the object of the invention being to provide an improved joint which will prevent independent movement of the rails in any direction, and which will dispense altogether with the necessity for fish plates and bolts.

A further object is to provide an improved joint of this character which enables a rail to be removed and replaced whenever occasion may require, and which when the rails are in position, they will be securely locked and held against movement.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1, is a perspective view illustrating my improved rail joint. Fig. 2, is a top plan view. Fig. 3, is a perspective view of the clamping plate 12. Fig. 4, is a view in horizontal longitudinal section taken through the web of the rails. Fig. 5, is a view in section on the line 5—5, of Fig. 4. Fig. 6, is a view in section on the line 6—6 of Fig. 4, and Fig. 7, illustrates in perspective the meeting ends of adjacent rails.

1, and 2, represent rails, both of these rails being precisely alike but reversely positioned. In other words, they are very different in structure at their opposite ends, and the adjoining of two rails only are illustrated. The head 3 of rail 1 is cut away as shown in Fig. 7, and the web portion 4 is notched in its upper edge as shown at 5. Rail 2 at its end, is of inverted U-shape as shown clearly in Fig. 7, so as to straddle the web 4 of rail 1, and in this inverted U-shaped end, a lug or key 6 is provided to enter the notch 5 and prevent any independent longitudinal movement of the rails. This rail 2, at its point of juncture with rail 1, has its base flanges 7 elevated so as to rest on the base flanges 8 of rail 1, the shoulder 9 being formed to re-

ceive the ends of flanges 8. The flanges 7 above referred to, are cut out as shown at 10, so as to accommodate the head 3 of rail 1, and permit rail 2 to be positioned when moved vertically, as it is to be understood that the flanges 7 extend beyond the point of juncture of the heads 3 of the two rails. Upwardly projecting longitudinal flanges 11 are provided at the outer edges of base flanges 7, and an improved clamping plate 12 is adapted to engage over these flanges 11. The clamping plate 12 extends transversely below the rails 1 and 2, and its ends are bent upward as shown at 13, then bent inward as shown at 14, and then downward as shown at 15 forming angles which, when the clamping plate is slid onto the joint, will engage over the flanges 11 as clearly shown. This plate 12 must be slid onto the joint longitudinally of the rails, which clamping action is facilitated by the curved formation of base flanges 7 and flanges 11 as shown at 16, and the movement of the plate is facilitated by means of lugs 17 at the respective ends of the plate.

To prevent any longitudinal movement of the clamping plate when once in position, a cotter pin or other locking device 18 is located in registering openings or recesses 19 and 20 in the clamping end of plate 12, and flange 11 respectively, thus securely locking the parts together.

Various slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

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 two rails, one rail having its head cut away exposing its web at the end, of base flanges on the other rail, adapted to rest upon the flanges of the first-mentioned rail, said last-mentioned rail of inverted U-shape to straddle the exposed web of the first-mentioned rail, said overlying base flanges having upwardly projecting flanges at their outer edges, and a clamping plate projecting under the rails at the joint and having bent ends engaging over said upwardly projecting flanges, substantially as described.



2. In a rail joint, the combination of two rails, one rail having its head cut away exposing its web at the end, of base flanges on the other rail, adapted to rest upon the  
5 flanges of the first-mentioned rail, said last-mentioned rail of inverted U-shape to straddle the exposed web of the first-mentioned rail, said overlying base flanges having upwardly projecting flanges at their outer edges,  
10 a clamping plate projecting under the rails at the joint and having bent ends engaging over said upwardly projecting flanges, said

upwardly projecting flanges and said clamping plate having registering openings, and a locking pin in said openings, substantially 15 as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CLAYTON DETWILER.

Witnesses:

CHAS. E. POTTS,  
R. H. KRENKEL.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

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