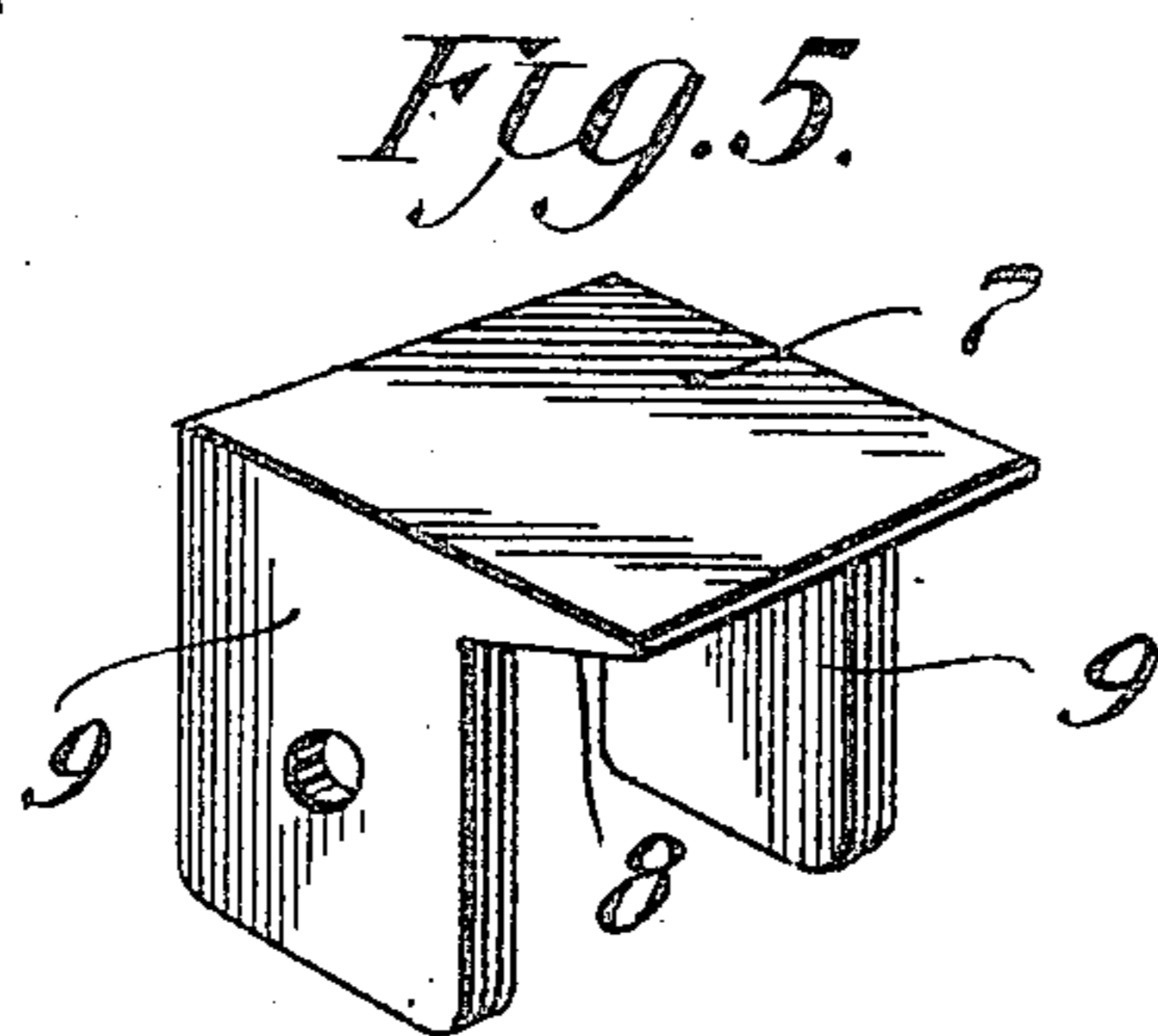
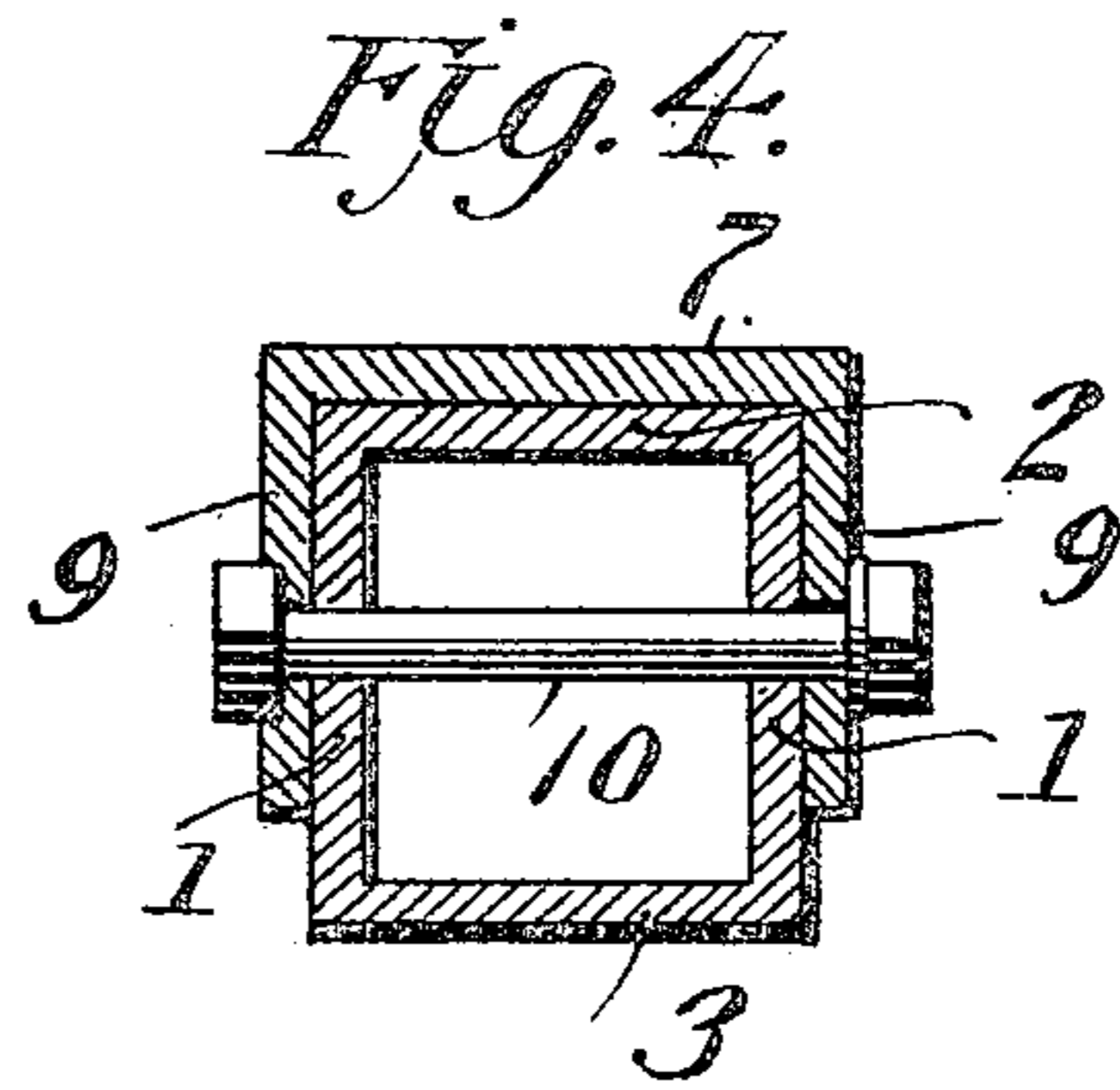
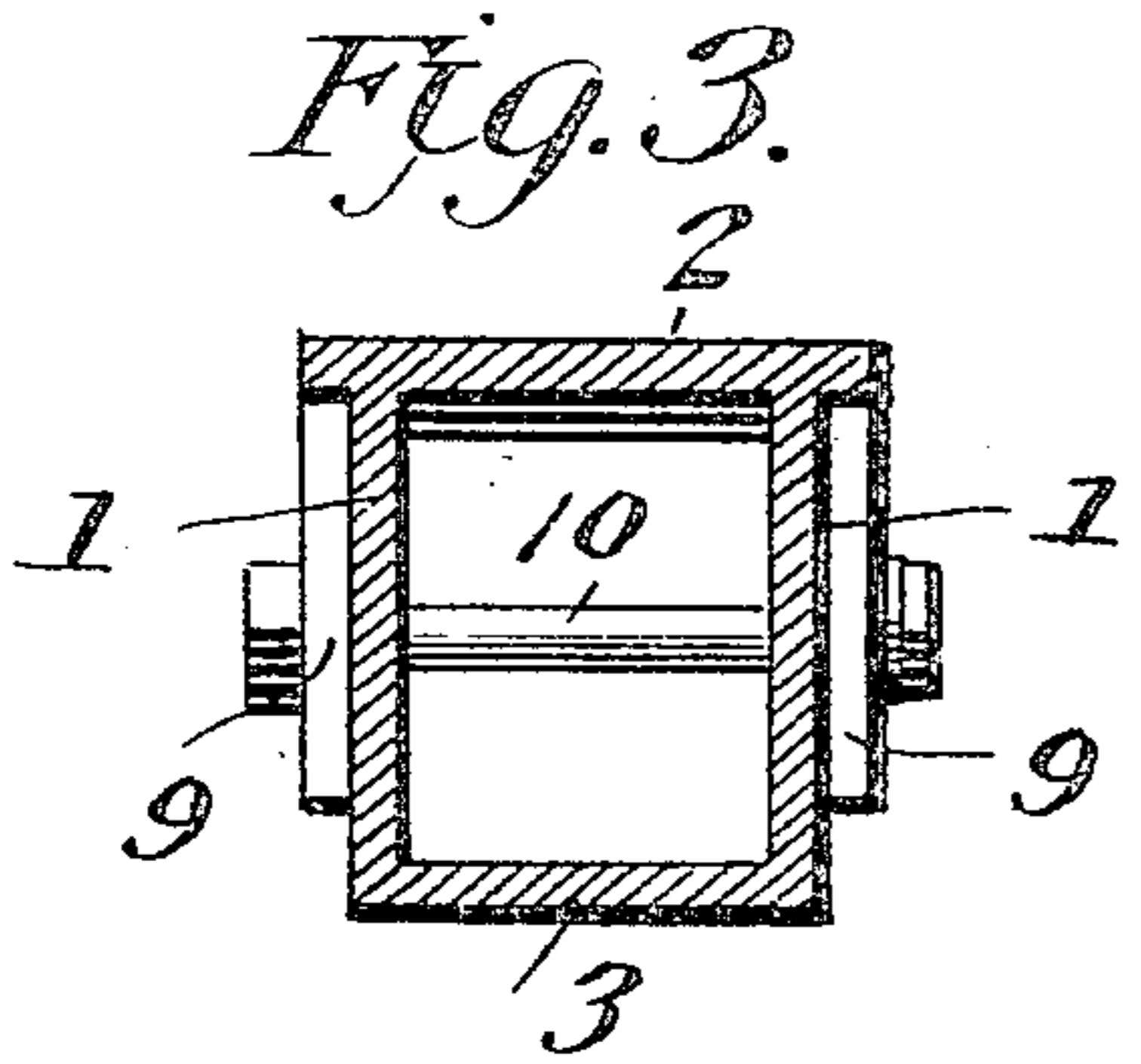
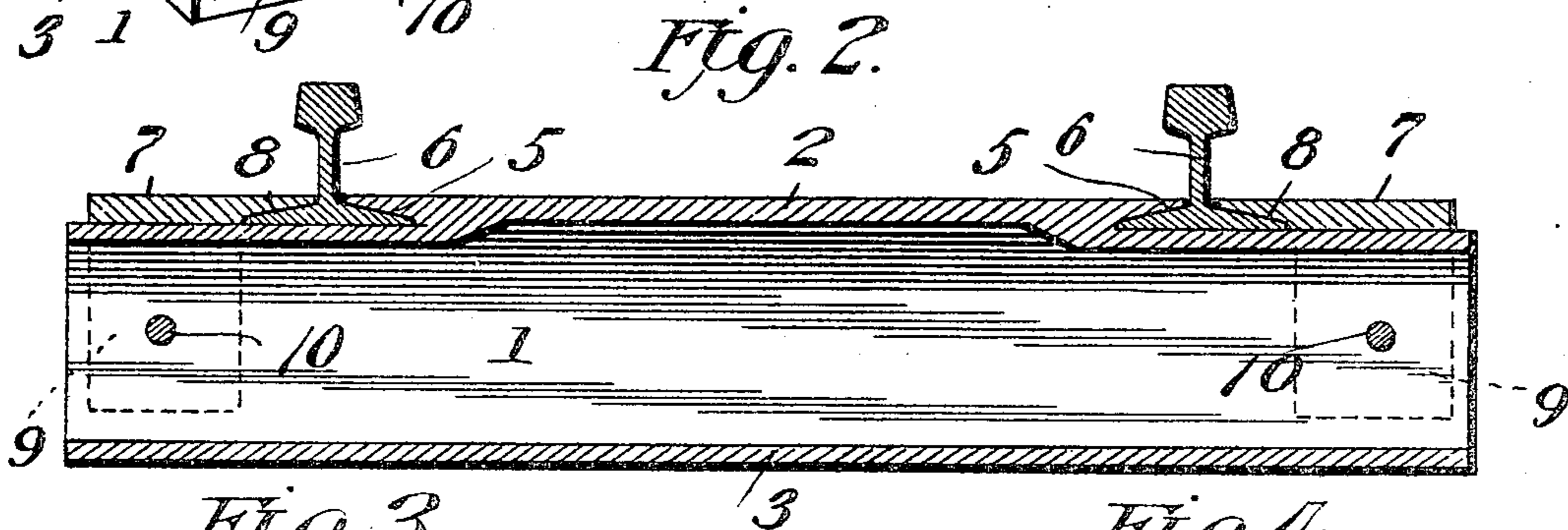
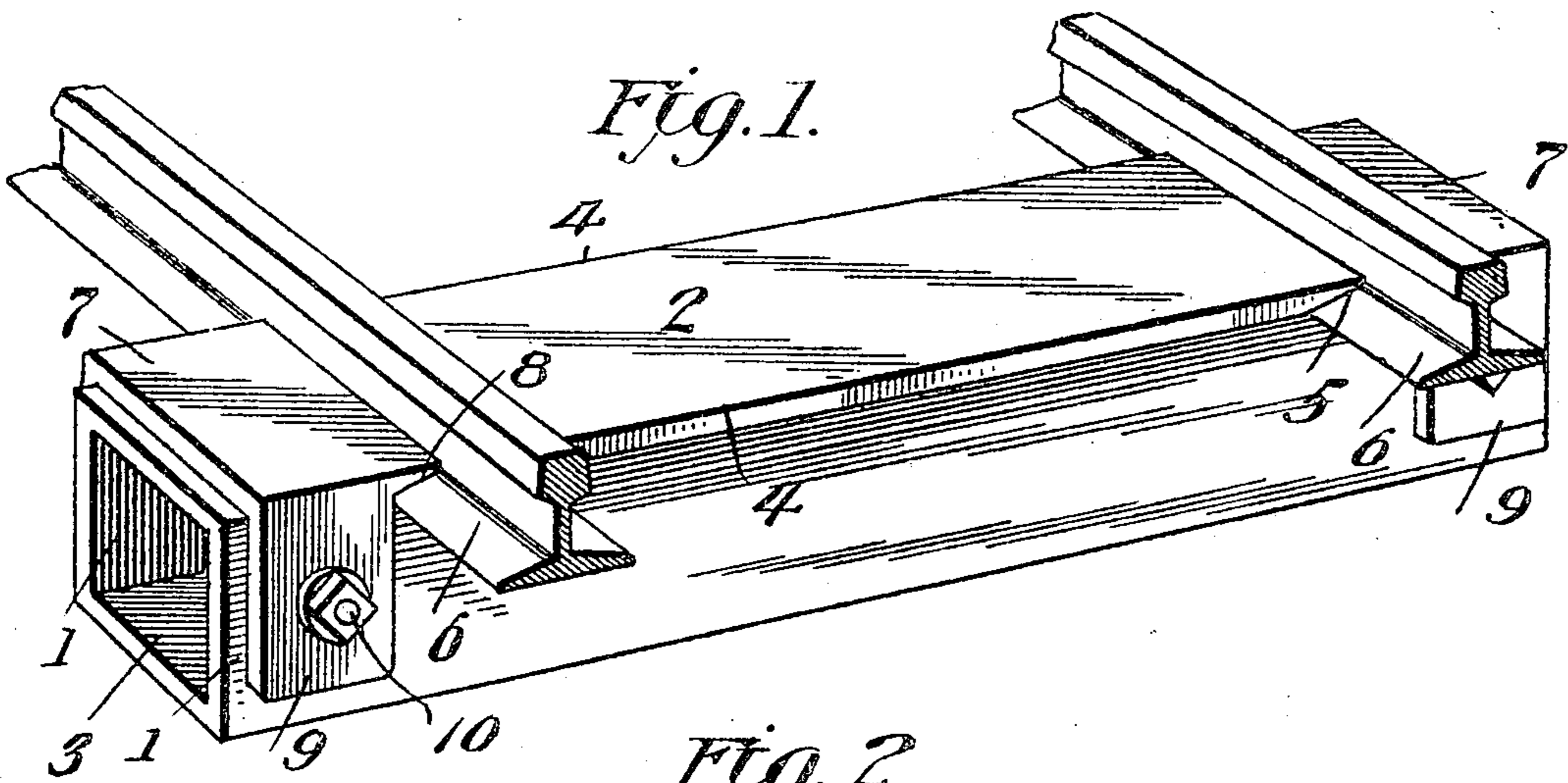


No. 801,177.

PATENTED OCT. 3, 1905.

S. BURNEY.  
METALLIC RAILWAY TIE.  
APPLICATION FILED MAY 20, 1905.



Witnesses  
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# UNITED STATES PATENT OFFICE.

STRANGE BURNEY, OF ELKTON, NORTH CAROLINA.

## METALLIC RAILWAY-TIE.

No. 801,177.

Specification of Letters Patent.

Patented Oct. 3, 1905.

Application filed May 20, 1905. Serial No. 261,400.

*To all whom it may concern:*

Be it known that I, STRANGE BURNEY, a citizen of the United States of America, residing at Elkton, in the county of Bladen and State of North Carolina, have invented new and useful Improvements in Metallic Railway-Ties, of which the following is a specification.

This invention relates to metallic railway-ties, the object of the invention being to provide a simple, cheap, and efficient all-metal tie for railways having means by which the rails are secured to the tie in an absolutely reliable manner, thus reducing to a minimum the liability of the rails to spread.

A further object of the invention is to combine the rail-fastening means with the tie in such manner that such fastening means may be quickly and easily detached for the purpose of repairing or relaying the rails or removing old ties and inserting new ones.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts, as hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a metallic railway-tie constructed in accordance with the present invention. Fig. 2 is a vertical longitudinal section through the same. Fig. 3 is a vertical cross-section through the tie, taken about centrally. Fig. 4 is a similar cross-section taken in line with the securing-bolt of one of the end clamps, and Fig. 5 is a detail perspective view of one of the clamps.

Like reference-numerals designate corresponding parts in all figures of the drawings.

The tie contemplated in this invention is preferably in the form of a square or flat-sided tube, the walls of which are of the proper thickness or gage to form an efficient support for the rails and the load passing thereover. In cross-section the body of the tie is substantially square or rectangular, comprising the parallel sides 1 and the parallel top and bottom 2 and 3, respectively. The top of the tie is made thicker or heavier than the sides and bottom and is extended laterally to form flanges 4, which project a short distance beyond the sides 1, the ends of the thickened portion being undercut, as shown at 5, to form projecting lips beneath which the base-flanges

at the inner sides of the opposite rails 6 project and are held firmly against the top of the tie.

On the ends of the tie are mounted rail-clamps, each of which is substantially U-shaped or three-sided and comprises a mounted body portion 7, which extends across the top of the tie and has its inner edge undercut, as shown at 8, to fit over the base-flange of the rail at the outside, each clamp also comprising oppositely-arranged pendent sides or flanges 9, which extend downward on opposite sides of the tie and embrace the same, as shown. One or more securing-bolts 10 are passed through the flanges 9 and also through the side walls 1 of the hollow tie for the purpose of securing the clamps in place after they have been properly associated with the rails, the holes for said bolts being so located as to insure the securing-bolts 10 holding the body portions of said clamps tightly against the top of the tie and firmly against the base-flanges of the rails, thus avoiding any possibility of the rails spreading.

The clamps not only form efficient fastening means for locking the rails to the ties, but it will be seen that said clamps are adapted to be easily removed by simply withdrawing the bolts 10. This enables repairs to the road-bed to be easily made and adapts the ties to be removed and replaced in a short time.

If desired, the thickened portion of the top of the tie may be made in the form of a separate plate or casting and secured in any suitable way to the top of the tie. It will also be apparent that other changes may be made in the form, proportion, and minor details of construction without departing from the principle or sacrificing any of the advantages of the invention.

Having thus fully described the invention, what is claimed as new is—

1. A metallic railway-tie having a centrally-arranged thickened portion extending above the plane of the tie, the ends of said thickened portion being undercut to receive one flange of the rails, and clamps secured to the sides of the tie and having projecting portions to engage the opposite flange of the rail.

2. A metallic railway-tie having a hollow tubular body with flat parallel sides, the top of the body being extended to form laterally-

projecting flanges and provided with under-  
cut seats for the rails, clamps resting on the  
end portions of the tie and provided with  
flanges which extend downward and embrace  
5 the tie on opposite sides, and bolts passing  
horizontally through the sides of the tie and  
the flanges of the clamps.

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

STRANGE BURNEY.

Witnesses:

O. L. CLARK,  
S. G. WOOTEN.