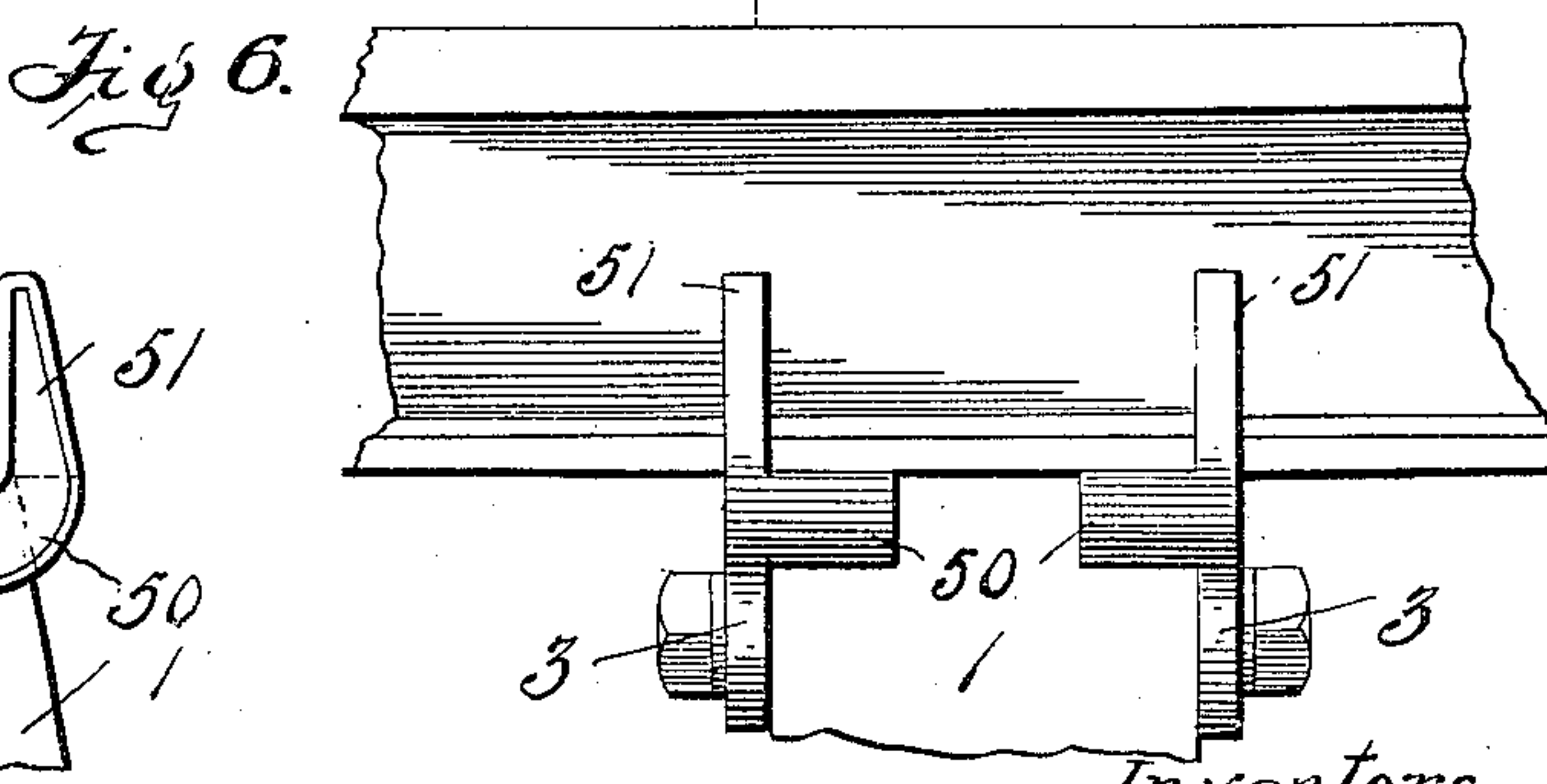
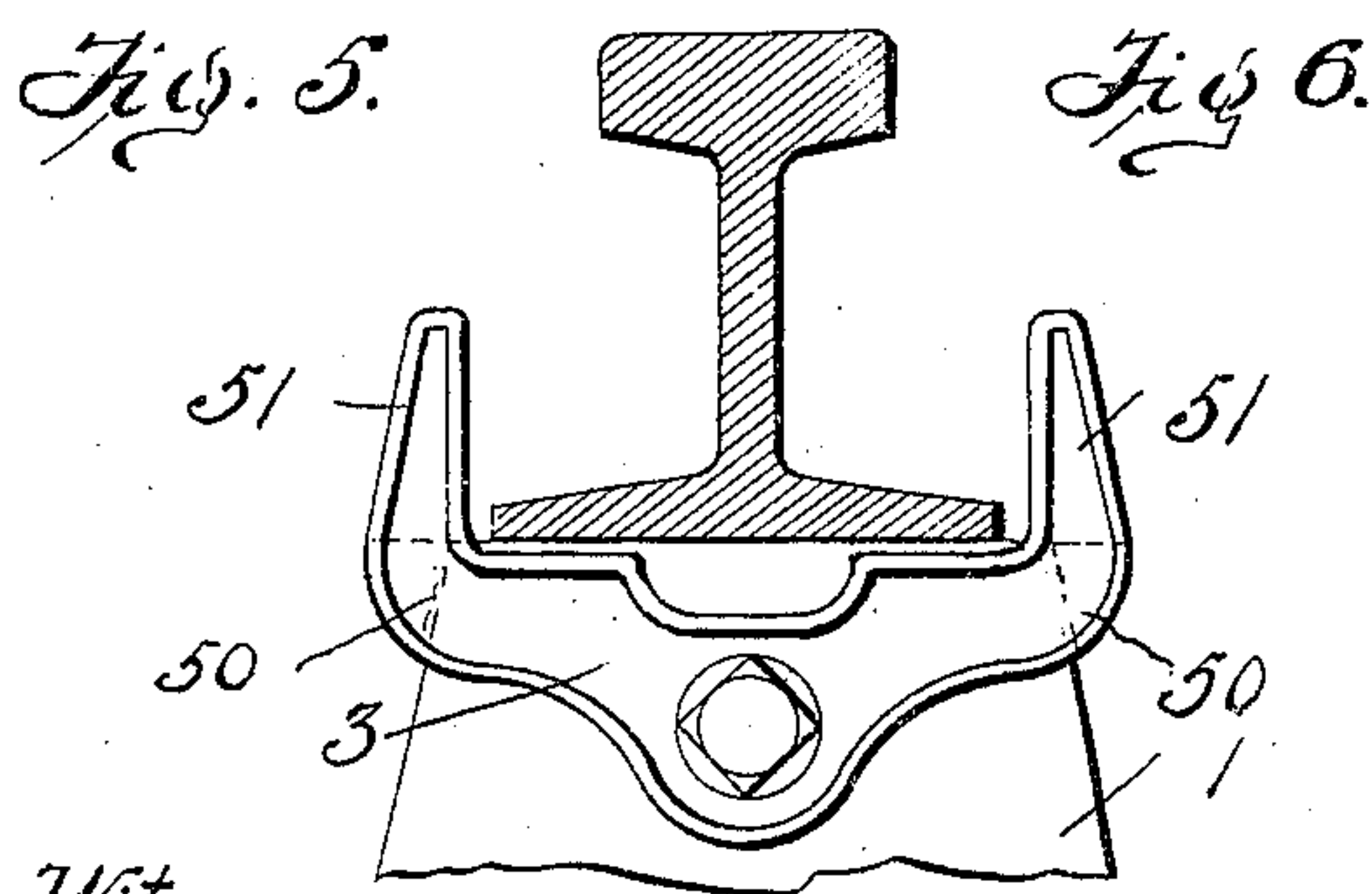
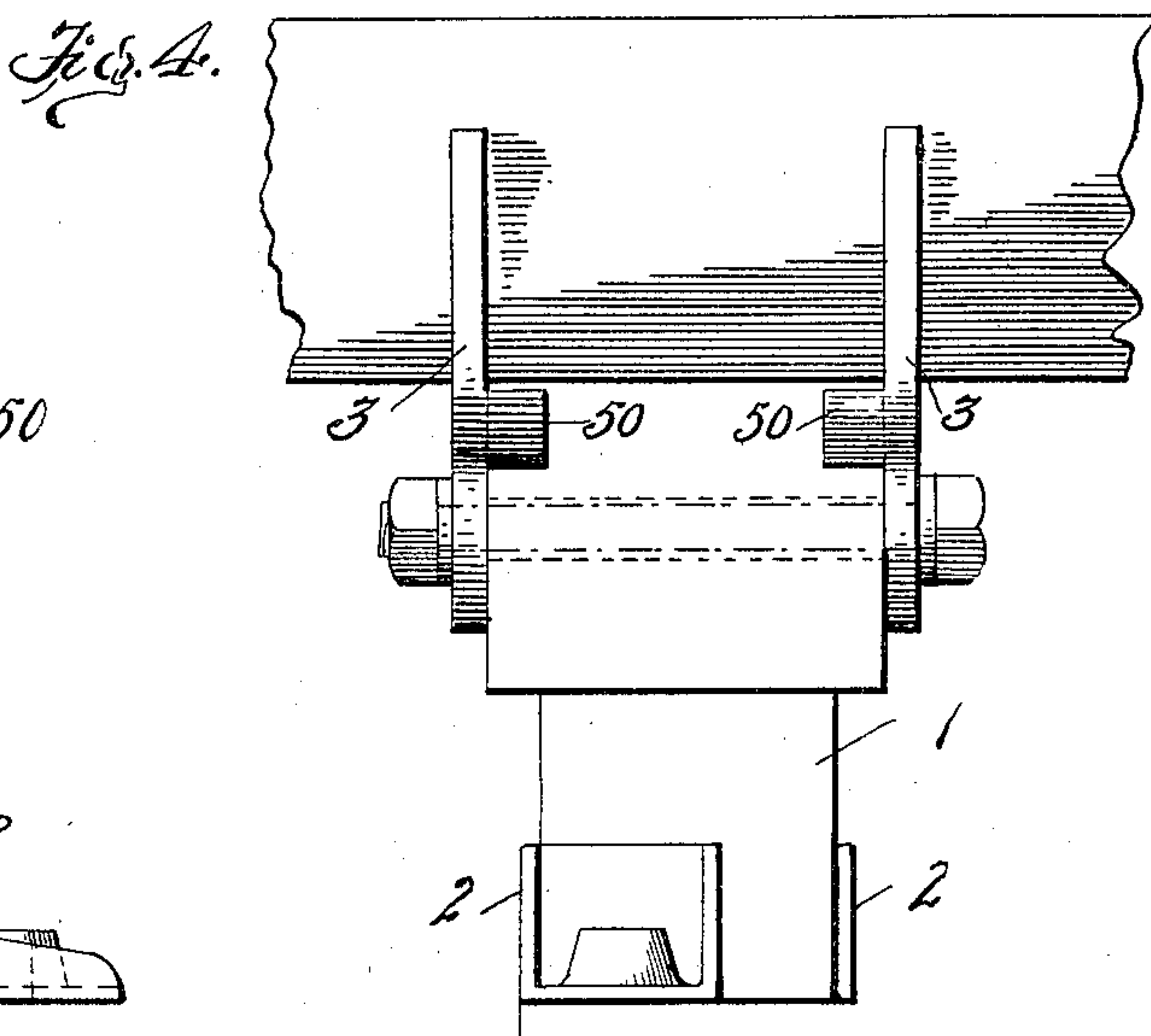
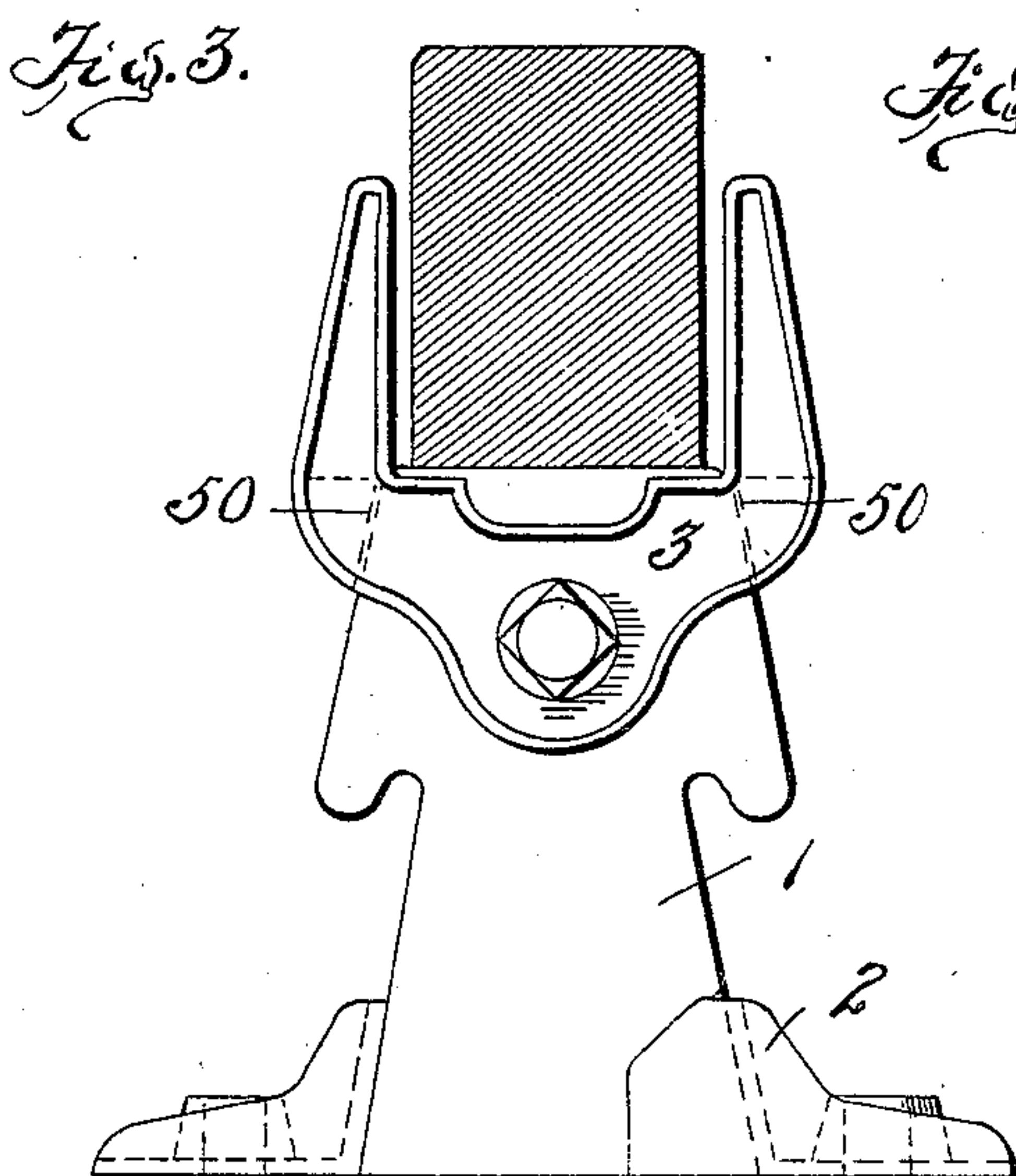
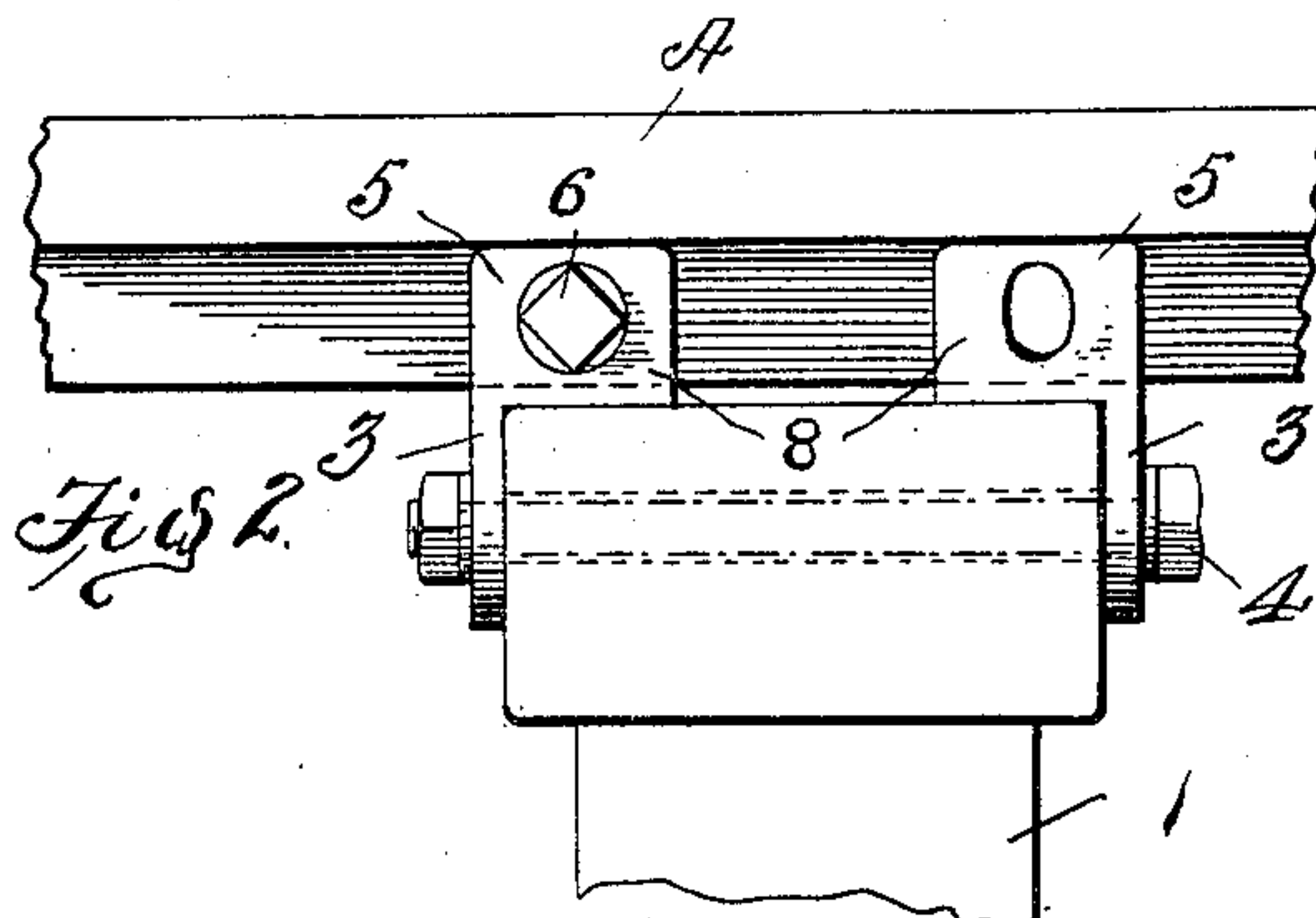
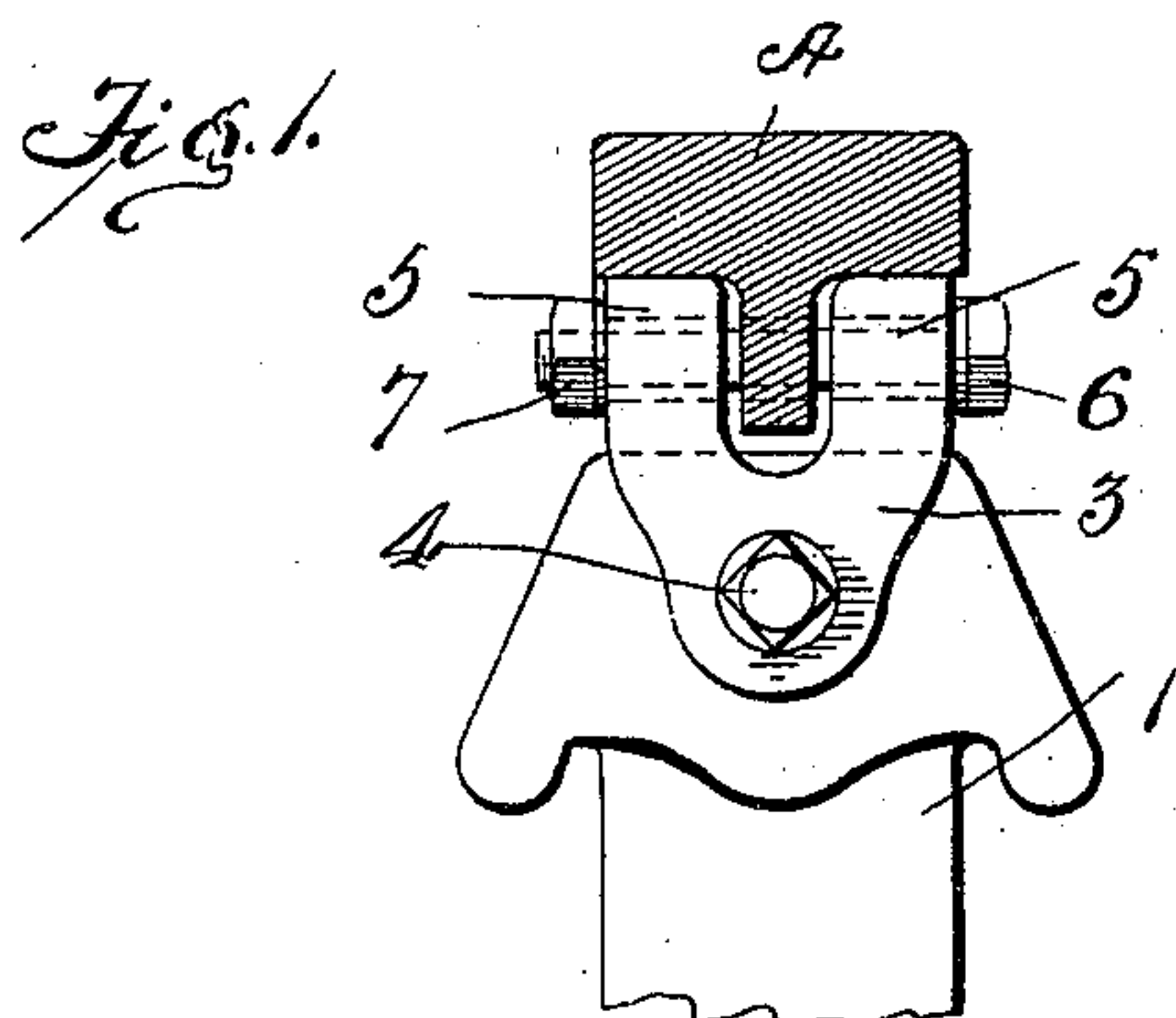


No. 791,079.

PATENTED MAY 30, 1905.

G. L. & W. COURTENAY.  
RAIL CLIP FOR THIRD RAIL INSULATORS.

APPLICATION FILED AUG. 27, 1904.



Witnesses

Chas. K. Davis.

John A. Daly

Inventors.

G. L. Courtenay

Wm. Courtenay

By W. A. Bartlett

Attorney.



# UNITED STATES PATENT OFFICE.

GEORGE L. COURTENAY AND WILLIAM COURTENAY, OF NEW YORK, N. Y.

## RAIL-CLIP FOR THIRD-RAIL INSULATORS.

SPECIFICATION forming part of Letters Patent No. 791,079, dated May 30, 1905.

Application filed August 27, 1904. Serial No. 222,470.

*To all whom it may concern:*

Be it known that we, GEORGE L. COURTENAY and WILLIAM COURTENAY, citizens of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Rail-Clips for Third-Rail Insulators, of which the following is a specification.

This invention relates to rail-clips for third-rail or conductor-rail insulators.

The object of the invention is to improve the clip or clasp employed with insulator-blocks of the general character described in the patent of William Courtenay, No. 664,470, dated December 25, 1900.

This invention consists in the construction of a yoke or yokes as a substitute for the hooks described in said patent and in the attachments, connections, or combinations by which the insulating structure is rendered more advantageous for many purposes.

The yoke or clip of this invention is adapted to various forms of conductor-rails as at present constructed by slight modifications in the form of yoke.

Figure 1 is an elevation of a top portion of an insulator-block, showing a rail-holding clip applied to a T-bar rail, the rail being shown in section and holding-bolts applied. These latter may be omitted on occasion. Fig. 2 is a broken side elevation of same parts, one bolt being omitted. Fig. 3 is an end elevation of insulator-block and its holding devices, showing the form of yoke or clip used with a bar-rail. Fig. 4 is a broken side elevation of same. Fig. 5 is a broken end elevation of insulator-block with yoke as modified for common T-rail. Fig. 6 is a broken side elevation thereof.

The insulator 1 and its retaining devices 2 are preferably of the general character described in the patent referred to, and the present improvement is intended to more conveniently hold the conductor-rail of such insulator-blocks.

A metallic yoke, usually of cast metal, has a web 3, which lies against the end of an insulator-block 1. One yoke only may be secured to each insulator-block by a bolt 4, passing through holes in the yoke and insulator-

block 1, or a yoke may be secured to each end of each block, as in Figs. 2, 4, and 6. Each yoke has arms extending upward from web 3 at each side of the conductor-rail when applied. The arms 5 5 shown extend upward from web 3 alongside the downward flange of the rail A. The arms 5 may have lugs 8 of sufficient width to receive the bolts 6 6, which may pass through said arms and through the downward flange of the rail and when used are held by nuts 7. The rails are generally held by their own weight; but fastening devices may be used on occasion. The lugs 8 extend over the top of the blocks 1, as shown in Fig. 2, and the top bar of the rail rests on the upper edge of these lugs. The rail is thus supported by the yokes, which are held to the insulator-blocks 1 by bolts 4, and in the modification shown in Fig. 1 the rail does not come in direct contact with the insulator-blocks.

In the modification shown in Fig. 4 the lugs 50 on the yokes extend alongside the upper portion of the insulator-block instead of resting on the top thereof. The function of such lugs 50 is to prevent the rocking of the yokes, the webs 3 of which are held to the insulator-blocks, as before described.

In the modification shown in Figs. 5 and 6 the yoke has a web 3 and upwardly-extending arms 51. The lugs 50 lie alongside the insulator-blocks, as in the last example.

From the above it will be seen that while the general principle of the yokes is the same such yokes are modified to adapt them to the different varieties of rail in common use.

The advantage over the hook-clasp described in the patent referred to is that there is less strain on the insulator-blocks, as the sides of the yokes balance each other, and the yokes are adapted with slight modifications to various forms of rail, whereas the hooks formerly employed were suitable for use with one form of rail only. The conductor-rail is not subject to the heavy strains of a track-rail and may generally be held in place by the yokes alone, although in some instances it is desirable to provide means for securing the rails to the yoke. In such cases it is desirable to provide such securing mechanism for the con-

ductor-rail as will permit the yielding of the ties without disturbing said rail.

In Fig. 1 the hole through the lower web of the rail is larger than the bolt, as indicated by  
5 dotted lines.

What we claim is—

1. The combination with an insulator having a perforation in the direction of the length of the rail supported thereby, of a rigid yoke  
10 attached to said block at one end thereof, said yoke having an integral upward-extending arm at each side of the rail, and the bolt passing through the yoke and the perforation in the block.

15 2. The combination with an insulator-block of metallic yokes at each end of said block, said yokes each having rigid integral arms extend-

ing upward at each side of the contact or conductor-rail, and means for securing said yokes to the insulator-block. 20

3. The combination with an insulator-block, of a metallic yoke secured to one end of said block, said yoke having an arm extending upward at each side of the rail, and having separate lugs which bear on the upper portion of  
25 the insulator-block.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE L. COURTENAY.  
WILLIAM COURTENAY.

Witnesses:

BERTRAM C. SMITH,  
DAVID GRANT.