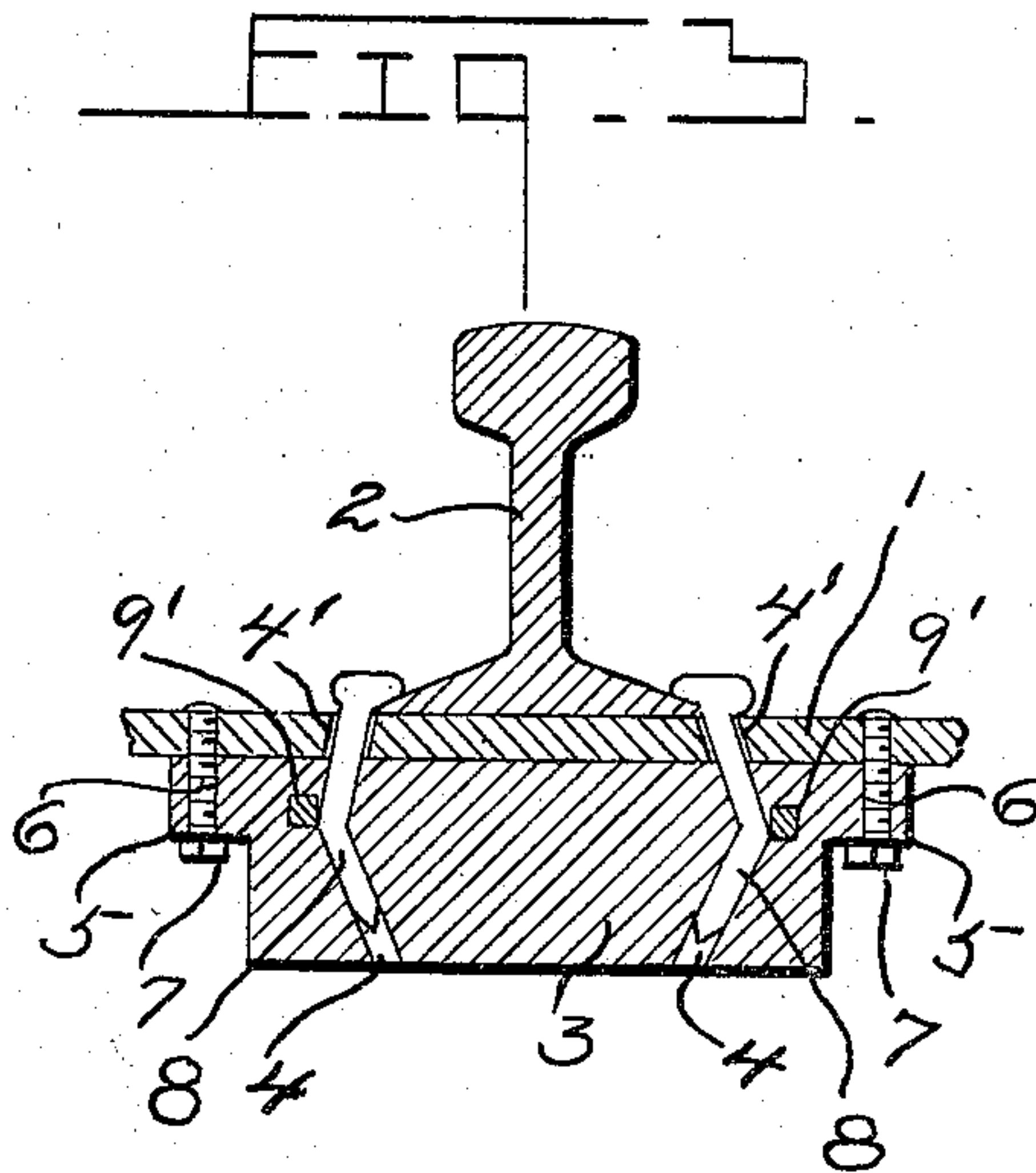
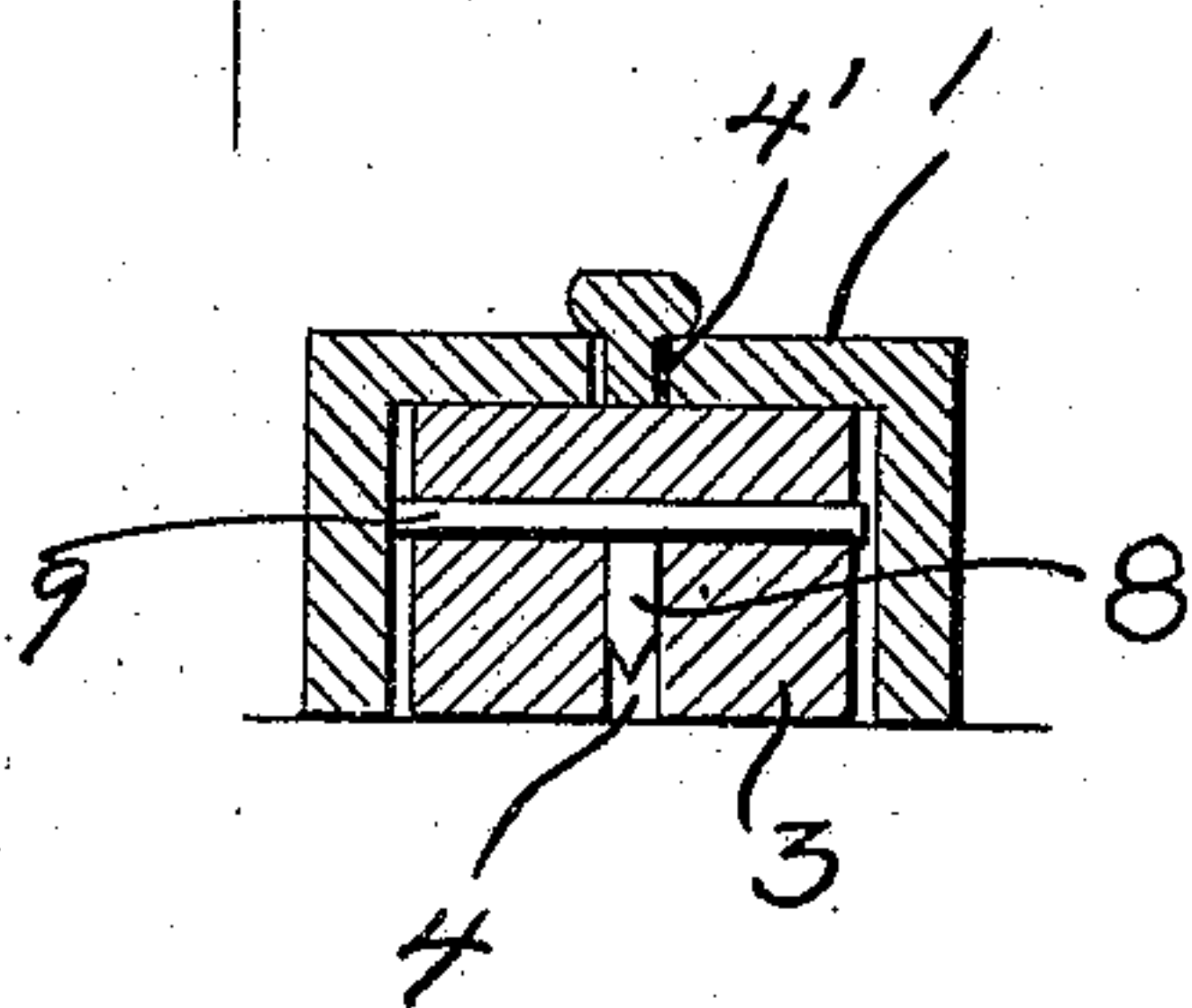
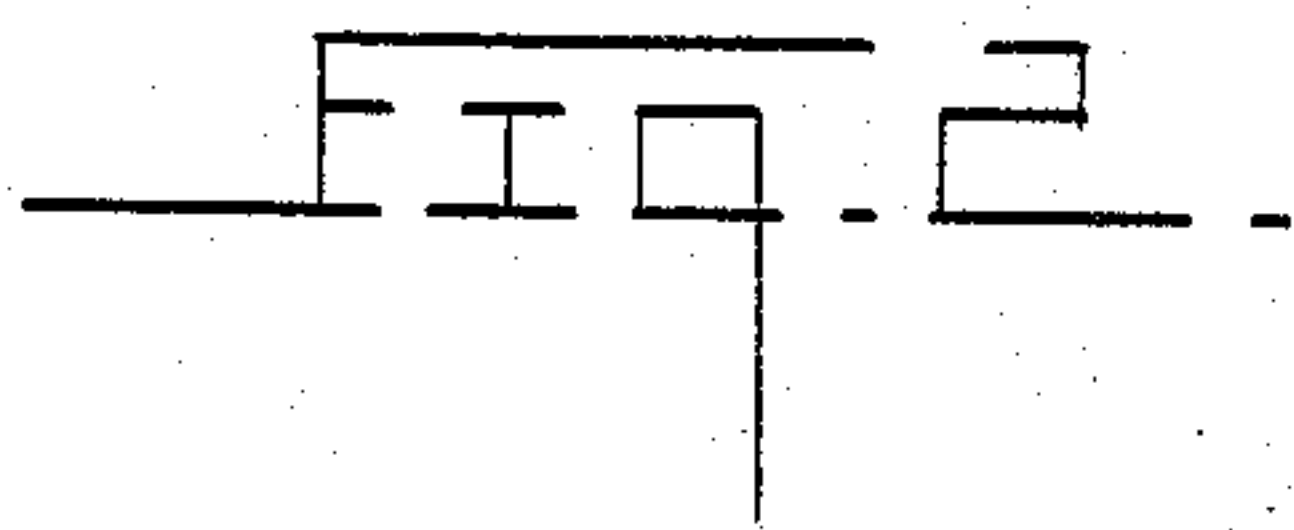
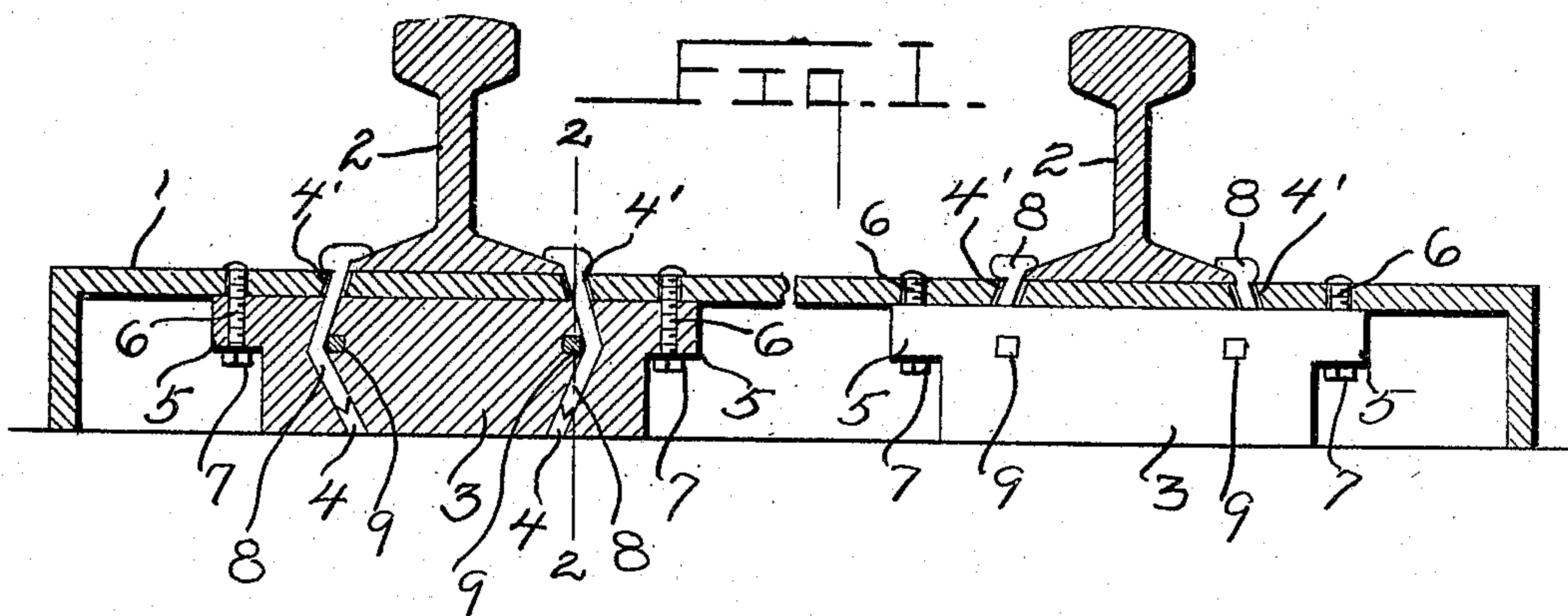


H. STAADT.
METALLIC RAIL FASTENING.
APPLICATION FILED MAR. 31, 1909.

930,322.

Patented Aug. 3, 1909.



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UNITED STATES PATENT OFFICE.

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METALLIC RAIL-FASTENING.

No. 930,322.

Specification of Letters Patent.

Patented Aug. 3, 1909.

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To all whom it may concern:

Be it known that I, HERMAN STAADT, a citizen of the United States, residing at Findlay, in the county of Hancock and State of Ohio, have invented certain new and useful Improvements in Metallic Rail-Fastenings, of which the following is a specification.

This invention relates to metallic rail fastenings, and has for its object to provide improved means for securing rails in position upon metallic ties.

Another object is to provide a securing means in which, after the spikes have been driven home they will be securely locked against accidental removal.

A further object is to provide a construction in which the expansion and contraction of the several parts will not detract from the utility of or have any material detrimental effect upon the device.

With these and other objects in view, the present invention consists in the combination and arrangement of parts, which will be hereinafter more fully described and particularly pointed out in the appended claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a part of this specification and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a central longitudinal section through a metallic railroad tie, the rails secured in position thereon, one of the blocks being shown in section. Fig. 2 is a transverse section through the tie and block taken on the line 2—2, of Fig. 1. Fig. 3 is a longitudinal section through a portion of the tie and one of the blocks illustrating a modification.

Referring to the drawings, 1 indicates a hollow metallic tie and 2 the rails superposed thereon. Centrally located beneath each of the rails, within the tie, are the blocks 3. These blocks are provided with the apertures 4, adjacent to their ends, which diverge downwardly to the middle portion of the blocks. From this point the apertures converge toward the bottom of the blocks. It will thus be seen that the apertures 4 are angularly extended from the approximate longitudinal center of the blocks. A transverse opening is formed in the ends of the

blocks at the angle in the apertures 4, the purpose of which will be later described. The top of the tie is also provided with apertures 4' which are in alinement with those of the blocks. Each of the blocks is formed with the longitudinal extension 5, through which are adapted to extend the bolts 6, secured therein by means of the nuts 7, thus firmly securing the blocks in position. The blocks are preferably formed of hardened steel, and spikes 8 of comparatively softer material are driven into the apertures formed therein. The spikes will of course bend to conform to the angle of the apertures, and it will be readily seen that after they have once been driven home, to remove them would be extremely difficult, if not impossible. After the spikes have been inserted into the apertures and the heads of the same are firmly engaged with the flanges of the rail, the transverse openings will be left in the block at the angle of the apertures 4, at the inner sides thereof, or toward the longitudinal centers of the rails. Into these openings are driven the pins 9 as an additional means of security for the spikes. Thus should there be any loosening of the spikes owing to the expansion or contraction of the metal, the rails will still be securely held in the aperture by means of the pins 9.

In Fig. 3 I have shown a slight modification in which the securing pin 9' is located at the outside edge of the spike slightly above the angle in the apertures 4. This will accomplish the same result and be equally as efficacious in the event of any loosening of the parts as in the construction above described.

From the foregoing it will be seen that I have provided a metallic rail fastening which will securely hold the rail to the tie and overcome any tendency of the spike to work out of the apertures 4.

My invention is very simple and inexpensive in construction, and highly efficient and durable in operation, and

Having thus described my said invention, what I claim as new and desire to secure by United States Letters Patent is:

1. A metallic rail fastening comprising a hollow tie, blocks located in said tie at either end thereof, beneath the rail, longitudinal extensions at the upper ends of said blocks, apertures formed in said blocks and inwardly diverging from the longitudinal center there-

of, openings in said tie in alinement with said apertures, and spikes adapted to be driven into said apertures substantially as and for the purpose set forth.

5 2. A metallic rail fastening comprising a hollow metal tie, metal blocks located in said tie at either end thereof beneath the rail, longitudinal extensions at the upper ends of said blocks, bolts extending through said
10 ties and secured in said extensions, apertures formed in said blocks and diverging at an obtuse angle from the longitudinal center thereof, openings in said tie in alinement with said apertures, and spikes formed of a com-
15 paratively softer material than that of said block and adapted to be driven into said apertures and conform thereto, substantially as and for the purpose set forth.

20 3. A metallic rail fastening comprising a hollow metal tie, blocks located in said tie at either end thereof beneath the rails, longitudinal extensions at the upper ends of said blocks, means for securing said blocks to said tie, apertures inwardly diverging from the
25 longitudinal center of said blocks, openings in said tie in alinement with said apertures, spikes of a comparatively softer material

than said blocks adapted to be driven into said apertures and conform thereto and transverse pins in said blocks frictionally en- 30 gaging with said spikes substantially as and for the purpose set forth.

4. A metallic rail fastening comprising a hollow metal tie, blocks located in said tie at either end thereof beneath the rails, means 35 for securing said blocks to said tie, apertures in said blocks and angularly extending from the longitudinal center thereof, transverse openings formed in said blocks and communicating with said apertures, openings in said
40 tie in alinement with said apertures, spikes adapted to be driven into said apertures and to conform thereto, and pins in said transverse openings in frictional engagement with the inner edge of said spikes at the angle
45 thereof substantially as and for the purpose set forth.

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

HERMAN STAADT.

Witnesses:

J. A. GIBSON,
H. J. EVERITT.