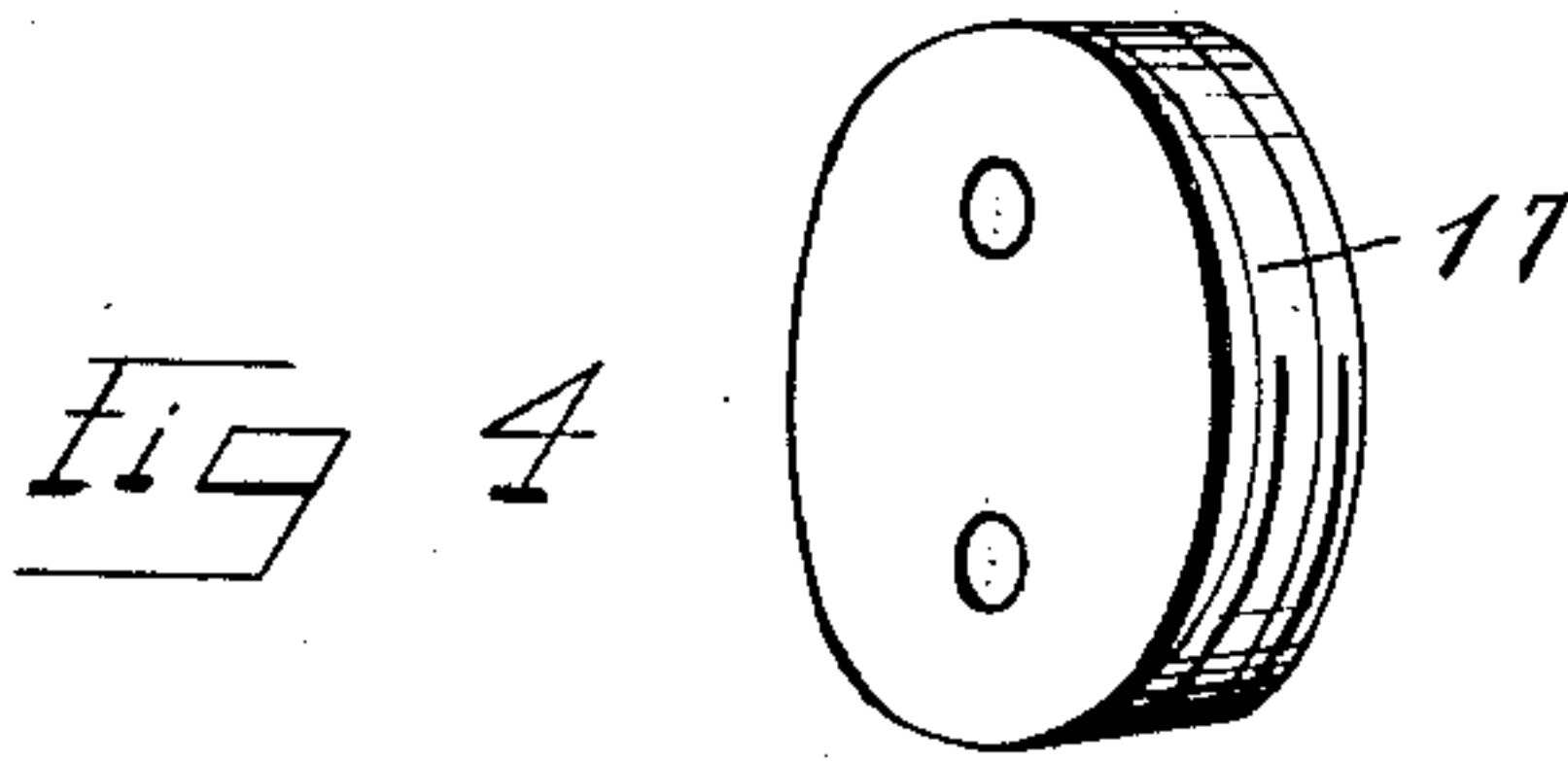
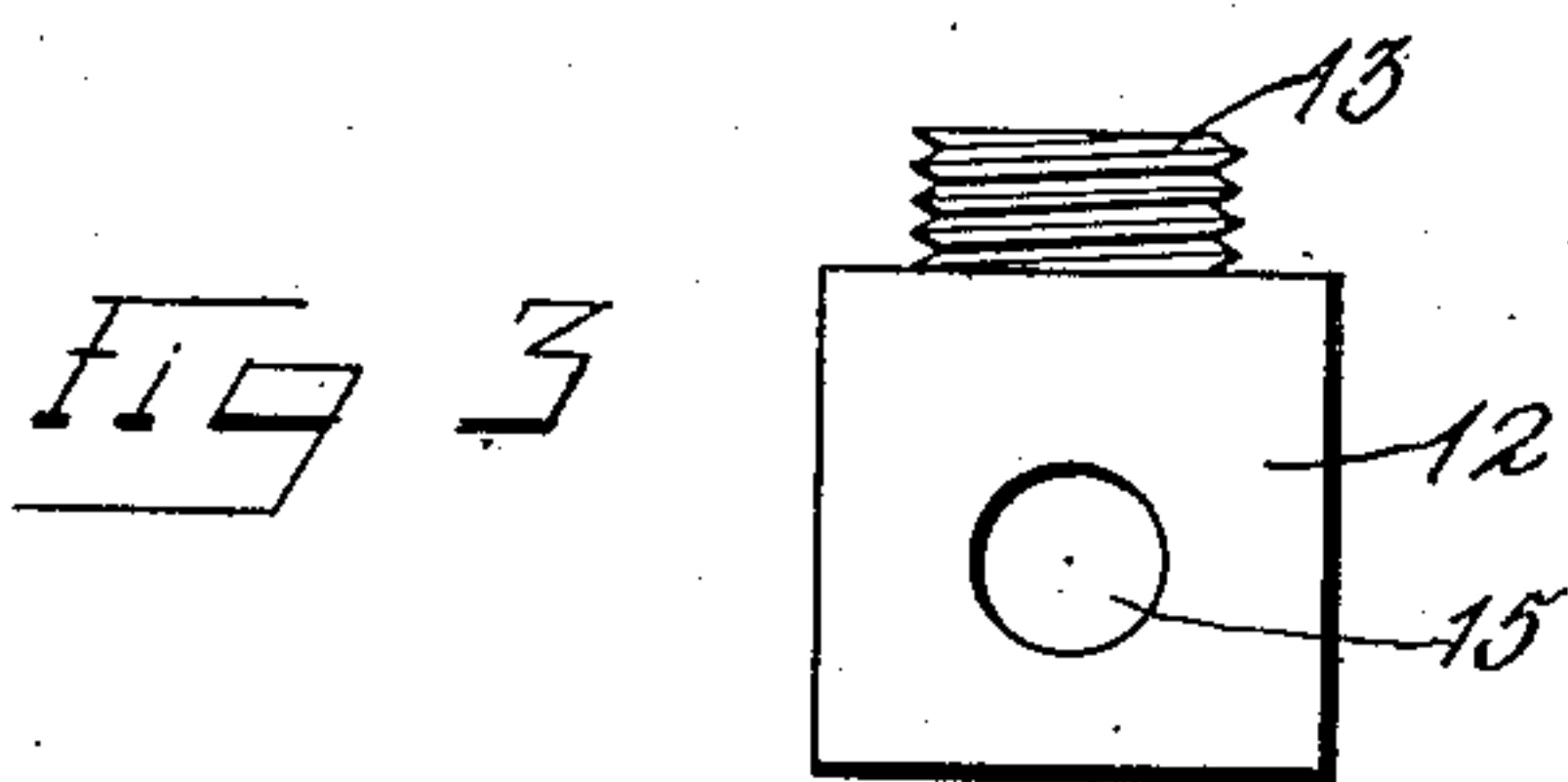
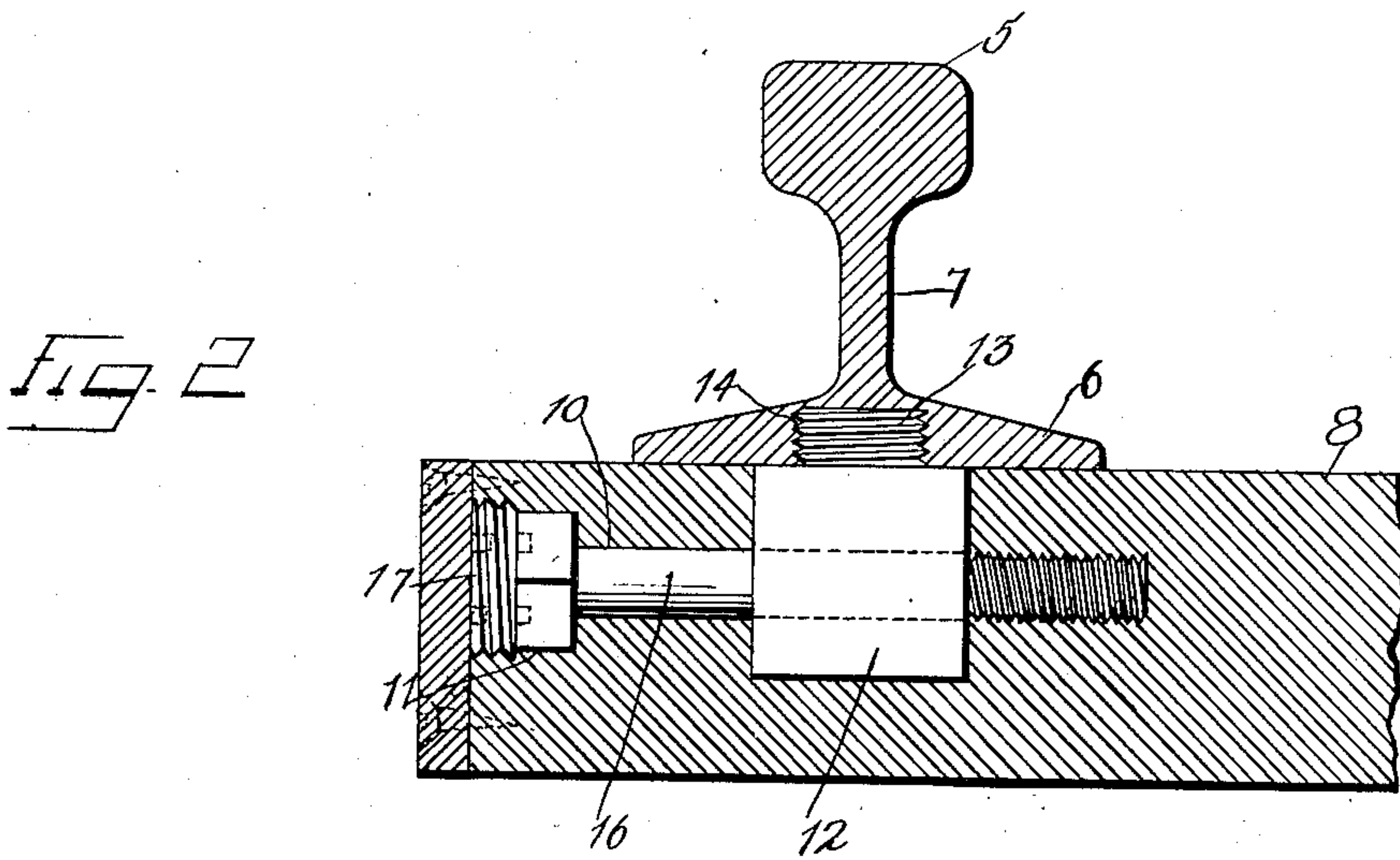
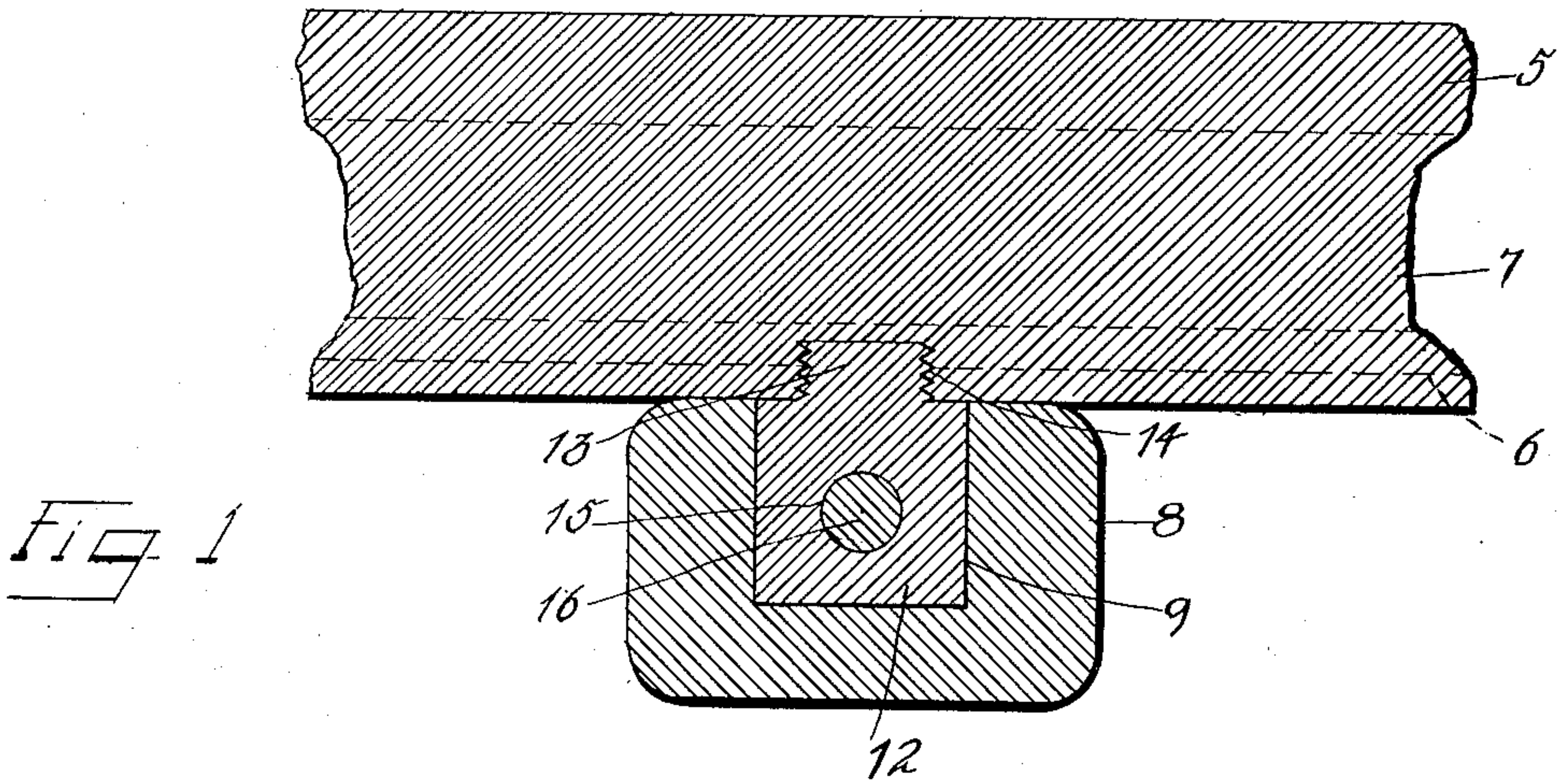


L. D'O. CHABUT.  
RAILROAD RAIL FASTENING DEVICE.  
APPLICATION FILED NOV. 12, 1909.

966,087.

Patented Aug. 2, 1910.



Witnesses  
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By

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Attorneys



# UNITED STATES PATENT OFFICE.

LOUIS D'ORVILLE CHABUT, OF YOUNGSTOWN, OHIO.

## RAILROAD-RAIL-FASTENING DEVICE.

966,087.

Specification of Letters Patent.

Patented Aug. 2, 1910.

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*To all whom it may concern:*

Be it known that I, LOUIS D'ORVILLE CHABUT, a citizen of the United States, residing at Youngstown, in the county of Mahoning, State of Ohio, have invented certain new and useful Improvements in Railroad-Rail-Fastening Devices; and I do hereby 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.

This invention relates to improvements in railway rail fastening devices and has for its object the provision of a device of that kind, whereby the rail may be secured to the tie without the use of spikes.

Another object is the provision of a rail provided with a plug and a tie provided with a socket to receive the plug and a locking pin passing through the tie and plug, whereby the rail is locked to the tie.

A further object is the provision of a means for sealing the opening through which the locking pin passes in order to prevent accidental displacement of the locking pin.

With these and other objects in view as will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claims; it being understood that various changes in the form, proportion, size and minor details of the device may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming part of the specification:—Figure 1 is a portion of a rail in longitudinal section and showing my improved device positioned to secure the rail to the tie. Fig. 2 is a transverse section of a rail and longitudinal section of a portion of a tie and showing the device in side elevation. Fig. 3 is a side elevation of the plug. Fig. 4 is a perspective view of the closure cap for the locking pin.

Similar numerals of reference are employed to designate corresponding parts throughout.

The tread of the rail is designated by the numeral 5, the base flange by the numeral 6, and the web uniting the base flange with the

tread by the numeral 7. These parts are all of well known construction, therefore a detailed description of the same need not be given.

The cross tie forming a portion of the subject-matter of the present invention is designated in general by the numeral 8, and may be of wood, metal or other suitable material. Formed in the upper face of the tie and adjacent either end thereof is a non-cylindrical socket 9, which extends approximately half way through the tie and extending inwardly from either end of the tie is an axial bore 10, the inner end of which communicates with the socket 9. The outer end portion of the bore 10 is counterbored as shown at 11, and interiorly screw threaded; the function of this construction will appear later.

The plug for uniting the rail with the tie is designated by the numeral 12, and is shown to be formed of a cube of steel, of a size to nicely fit within the socket 9. When the plug is positioned in the socket as shown in Figs. 1 and 2 its upper side will be flush with the upper face of the tie 8, and arranged on the upper face of the plug is an exteriorly threaded boss 13. The boss 13 is circular in contour and of considerably less length and width than the plug.

By reference now to Figs. 1 and 2, it will be seen that formed in the central portion of the lower flange 6 of the rail is a threaded opening 14, of a depth and diameter to receive the boss 13. It is to be understood that the base flange of the rail is provided with a plurality of these openings which are spaced apart for a distance corresponding to the space between the longitudinal centers of the cross ties so that when the rails are positioned on the cross ties they are secured to the latter in a manner to be presently described.

By reference now to Figs. 1 and 2, it will be seen that the plug 12 is medially provided with a transverse aperture 15, adapted to aline with the bore 10, in the tie 8 and when the parts are so positioned these alining openings receive a locking pin 16, which passes through the bore 10 and aperture 15.

In assembling the parts, it being understood that the ties are first positioned in the bed, the bosses 13 of the plugs 12 are threaded into the openings 14, in the base flange of the rail and are turned until the axes of the apertures 15 are perpendicular to



the longitudinal center of the rail. When the parts are so positioned the rail is placed upon the cross ties and the plugs inserted into the sockets after which the locking pins are passed through the bores, whereby the parts are held against displacement.

It will be observed by reference to Fig. 2 that the head of the locking pin 16 is seated in the counterbore 11 and in order to prevent accidental displacement of the locking pin, due to the jarring produced by passing trains and at the same time to positively prevent tampering, a threaded cap 17 is provided. This member is provided with a flat outer surface having a pair of oppositely arranged depressions to receive a suitable tool by means of which the cap may be threaded into the counterbore 11 and bear on the head of the locking pin. The cap is of such thickness that when it has been completely threaded into the counterbore, its outer surface is substantially flush with the end of the tie and owing to the absence of projections on the said outer surface it will be impossible to remove the cap without the aid of a suitable tool. Thus it can be seen when the parts are positioned as shown in Figs. 1 and 2, that the rail will be securely locked to the tie and danger of its displacement reduced to a minimum.

What is claimed as new, is:—

1. In a rail fastening device, a rail provided on its base flange with an apertured

plug, a tie provided with a socket to receive the plug and further provided with an axial bore in alinement with the aperture of the plug and a locking pin passing into the bore of the tie and aperture of the plug. 35

2. In a rail fastening device, a rail provided on its base flange with an opening, a non-cylindrical apertured plug having a boss at one end threadable into said opening, a cross tie provided with a socket to receive said plug and further provided with an axial bore communicating with said plug and a locking pin passing into the bore of the tie and aperture of the plug. 40 45

3. In a rail fastening device, a rail provided on its base flange with a depending apertured plug, a tie provided with a socket to receive said plug and further provided with a bore the inner end of which terminates in said socket and the outer end of which is enlarged and interiorly screw threaded, a locking pin passing into said bore and through the apertured plug and a cap threadable into the enlarged portion of the bore and bearing on the outer end of the locking pin. 50 55

In testimony whereof, I affix my signature, in presence of two witnesses. 60

LOUIS D'ORVILLE CHABUT.

Witnesses:

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