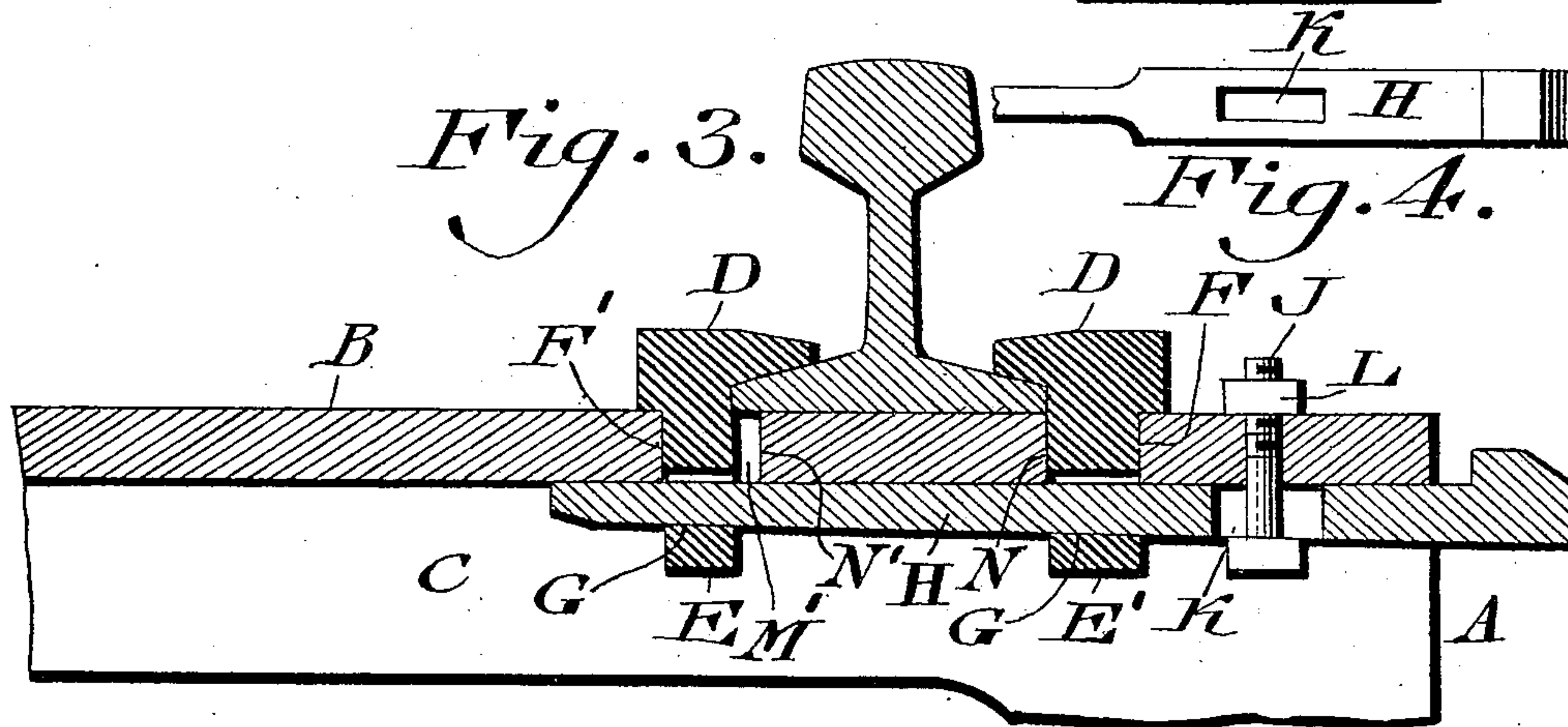
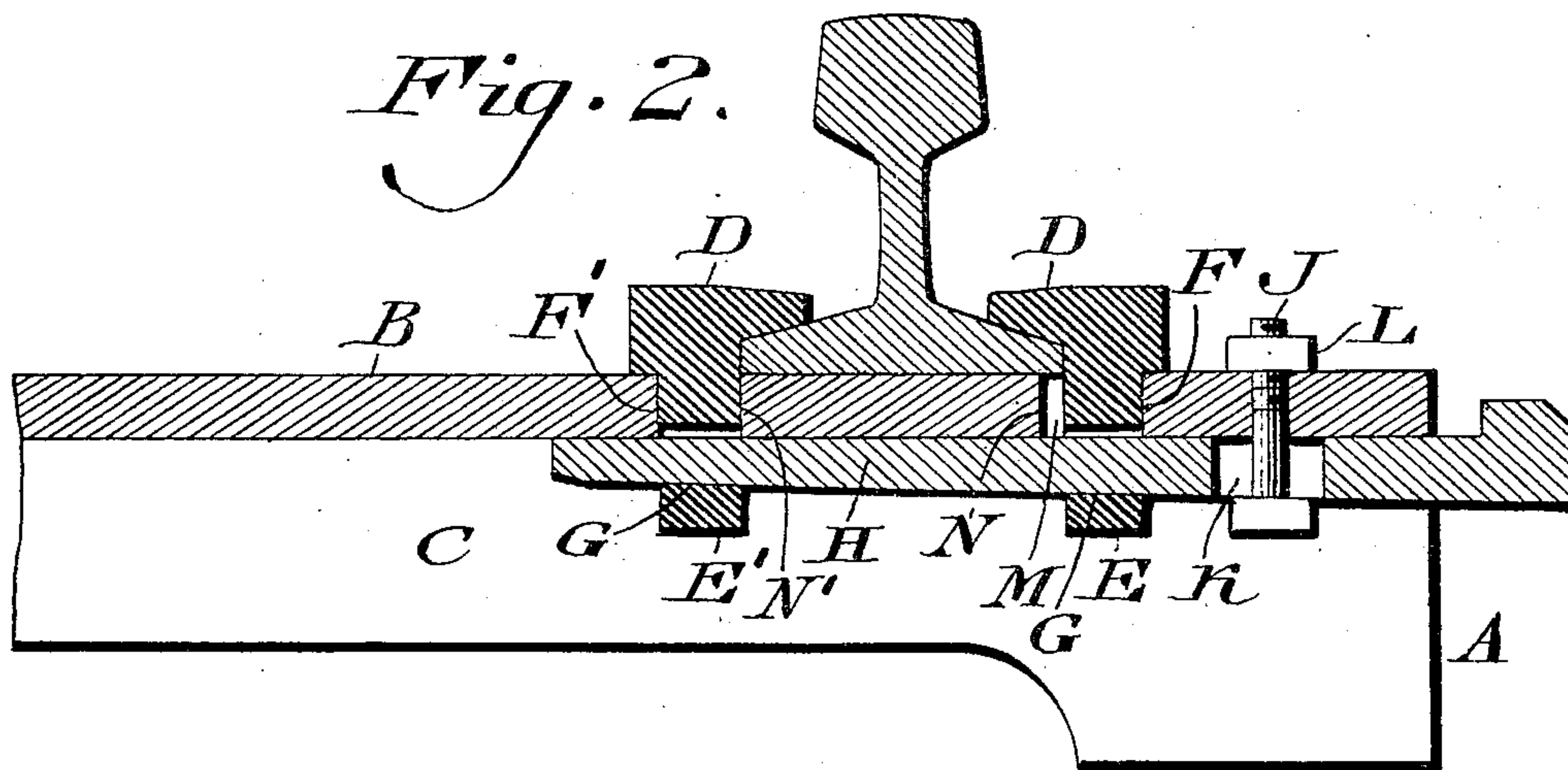
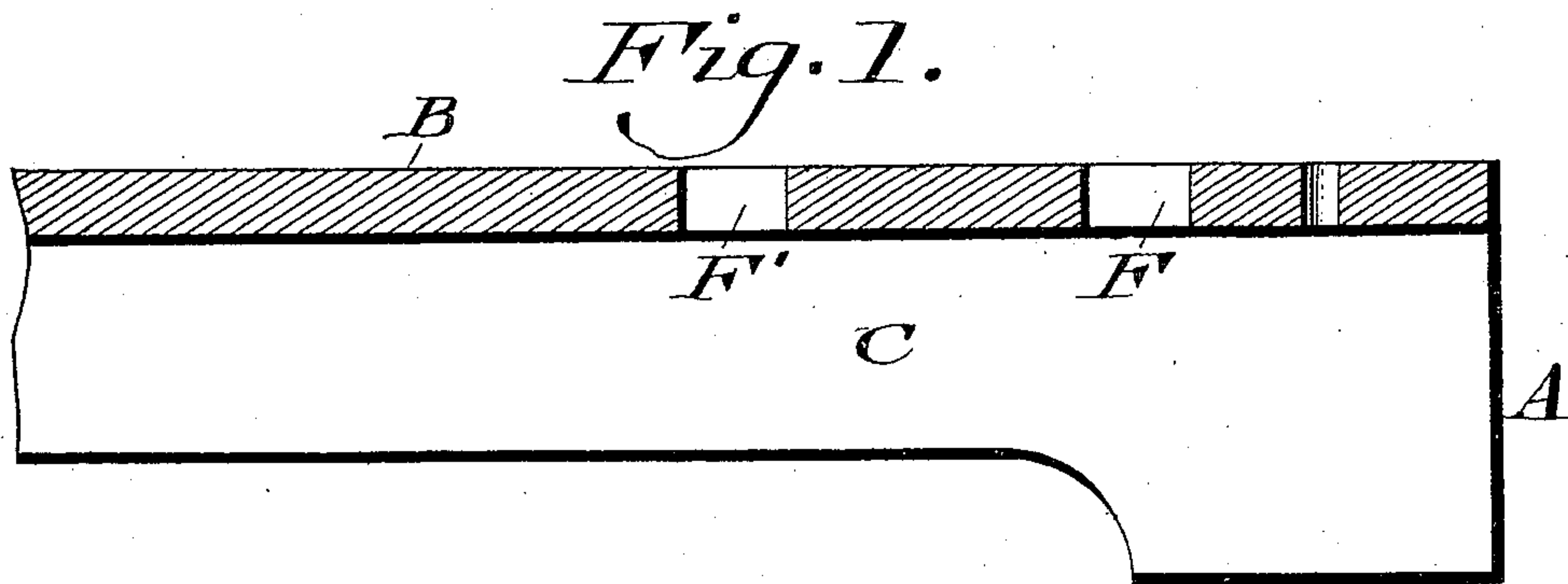


No. 869,732.

PATENTED OCT. 29, 1907.

G. W. RITTERSBACH.  
RAILROAD TIE AND RAIL FASTENING.  
APPLICATION FILED MAR. 27, 1907.



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# UNITED STATES PATENT OFFICE.

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## RAILROAD-TIE AND RAIL-FASTENING.

No. 869,732.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed March 27, 1907. Serial No. 364,869.

*To all whom it may concern:*

Be it known that I, GEORGE W. RITTERSBACH, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have  
5 invented a new and useful Railroad-Tie and Rail-Fastening, of which the following is a specification.

My invention consists of a railroad tie and rail fastening which is composed of members adapted to firmly clamp the rail, and permit the latter, particularly, when its head is worn, to be moved or shifted so  
10 as to restore the gage of the track.

Figure 1 represents a longitudinal section of a portion of a railroad tie embodying my invention. Fig. 2 represents a similar section, including a longitudinal  
15 section of the fastening for the rail embodying my invention. Fig. 3 represents a view similar to Fig. 2, showing, however, the fastenings in different position. Fig. 4 represents a top view of a detached portion.

Similar letters of reference indicate corresponding  
20 parts in the figures.

Referring to the drawings: A designates a metallic tie, composed of the top or bed B, and sides C depending therefrom.

D designates cheek pieces or clamps which engage  
25 the base of the rail, the same being formed with legs E, E' which are passed through openings F, F', in the top of the tie and are formed with slots G, through which is passed the key or wedge H, the same being below said top and having its head accessible at the  
30 end of the tie.

In order to secure the key after being properly driven into the legs E, E', I employ the bolt J, which is adapted to enter the slot K in said key and pass through an opening in the top of the tie, it being provided with a nut L for tightening purposes.  
35

Attention is especially directed to the fact that the openings F, F' are of the same dimensions, and the legs E, E' are of different dimensions, both in the direction of the length of the tie, so that in one of said openings a space M primarily exists between the inner side  
40 of the respective leg and the adjacent wall N of said opening. By this provision, when the head of the

rail wears away on what may be termed its inner side, thus making a change in the gage of the rail, it is important to drive or move the rail inwardly and so restore the gage. To this end the key H is released and  
45 withdrawn from the legs E, E', and the clamps D are removed from the openings F, F', and transposed, that is to say, the clamp D with the thick leg E' is placed in the opening F, and the clamp with the thinner leg  
50 E is placed in the opening F', whereby the space M' now exists between the inner side of the leg E and the adjacent wall N' of said opening. This allows the rail to be moved towards said leg E, see Fig. 3, and have one side of its base engaged by the head of the clamp  
55 thereof. After this the key H is inserted in the legs, and the clamps are accordingly controlled, while firmly holding the rail anew in its shifted position, it being seen that in either position of the differential clamps while the heads of the same engage the upper  
60 side of the base of the rail, the inner sides of the legs abut solidly against the outer side of said base, and furthermore, the outer sides of the legs abut solidly against the outer walls of the openings F, F', thus firmly holding the rail and preventing spreading of  
65 the same.

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

1. In a railroad rail fastening, clamps adapted to engage the base of a rail, the same having members adapted  
70 to engage a railroad tie, said members being of different dimensions in the direction of the length of the tie and transposable in said tie.

2. In a railroad tie and rail fastening, a tie, and rail clamps having legs adapted to enter openings in said tie, said legs being of different dimensions in the direction of  
75 the length of the tie and transposable in said openings.

3. In a railroad rail fastening, rail clamps having legs adapted to enter a tie, a key adapted to occupy said legs, and a bolt adapted to pass through said key and the tie.  
80

4. In a railroad rail fastening, a rail support, and means for clamping a rail thereon, certain members of said means being differential in dimensions and transposable, for restoring the gage of a railroad track.

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