

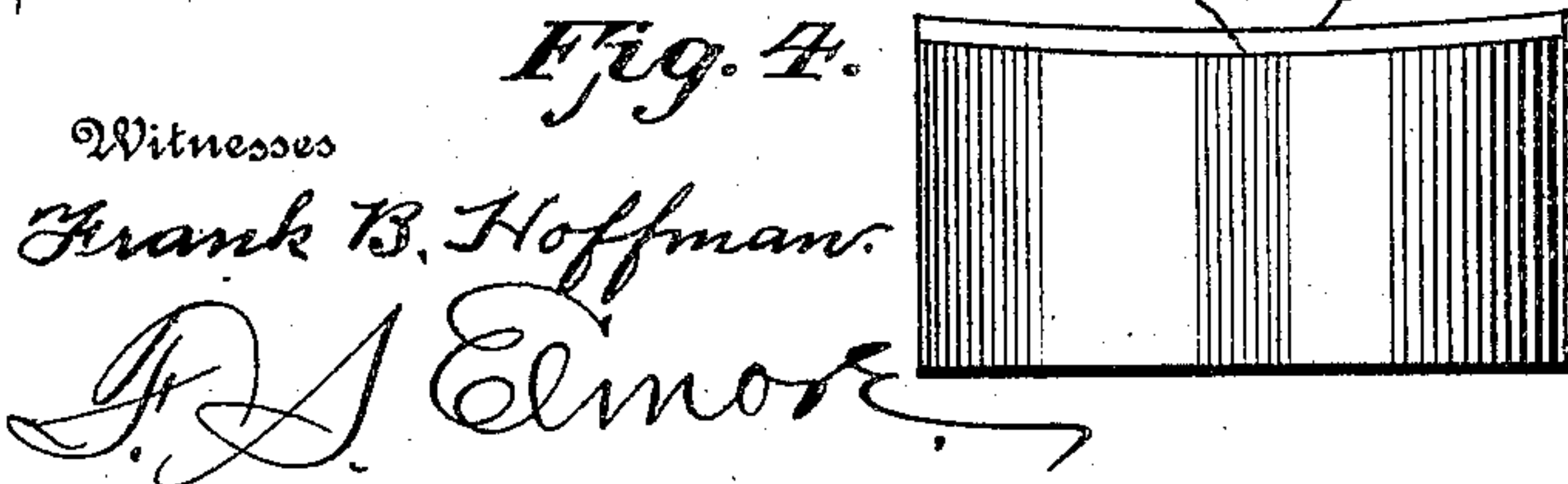
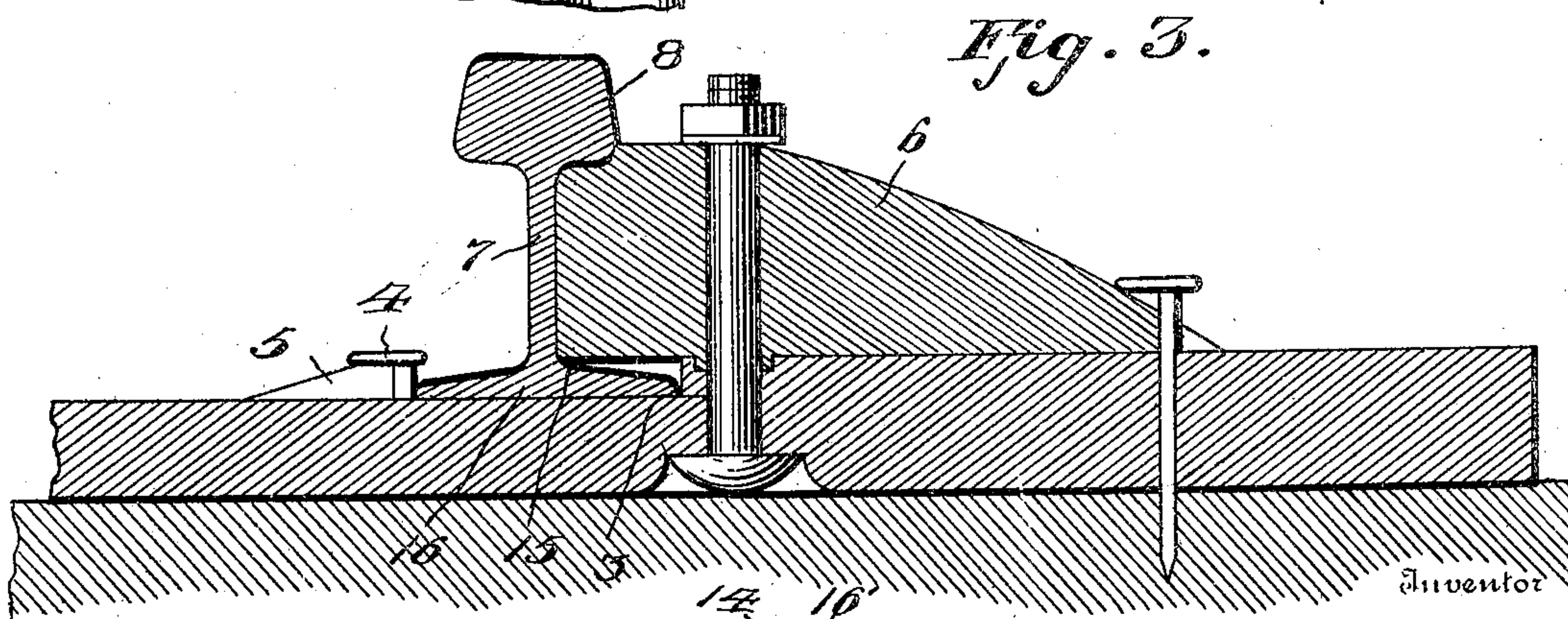
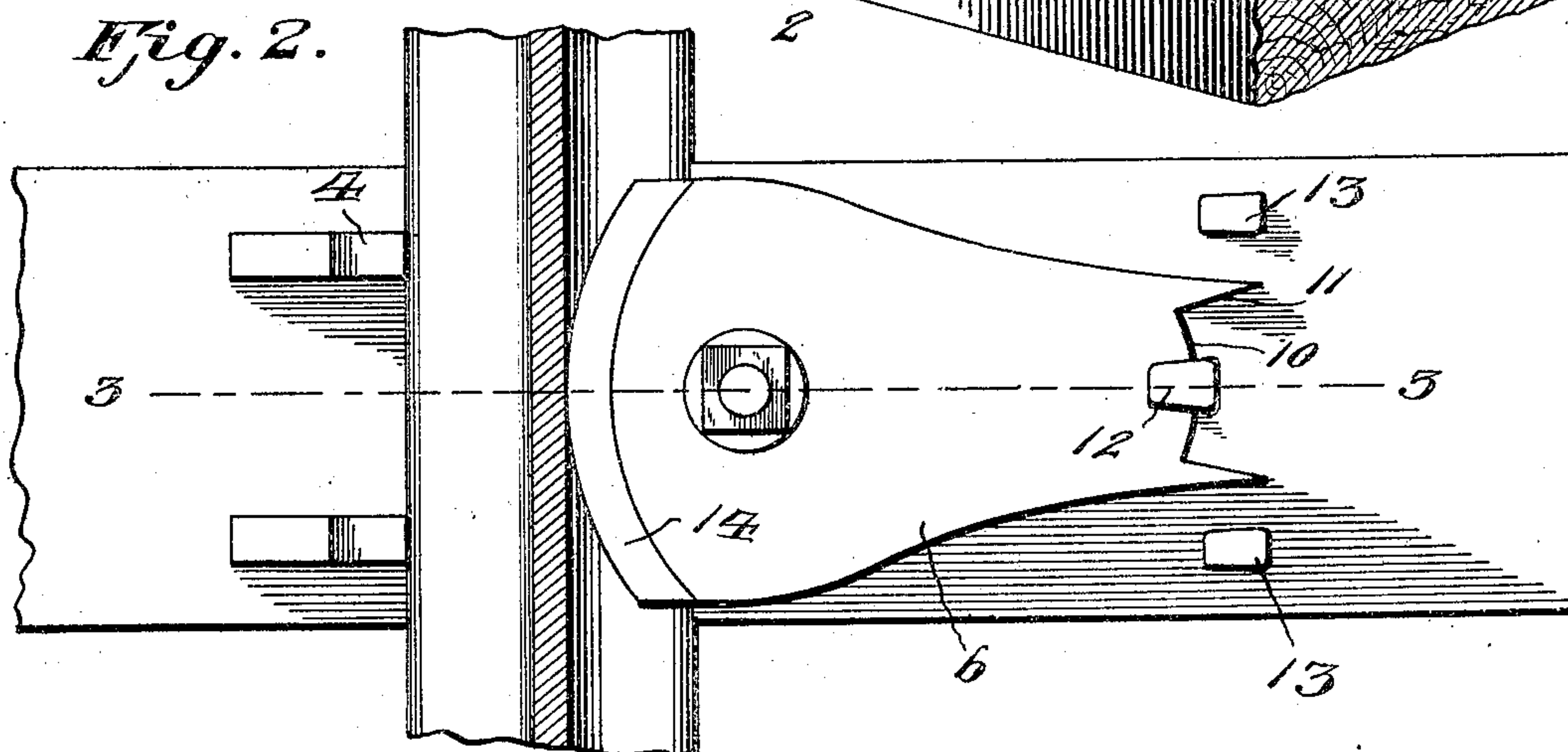
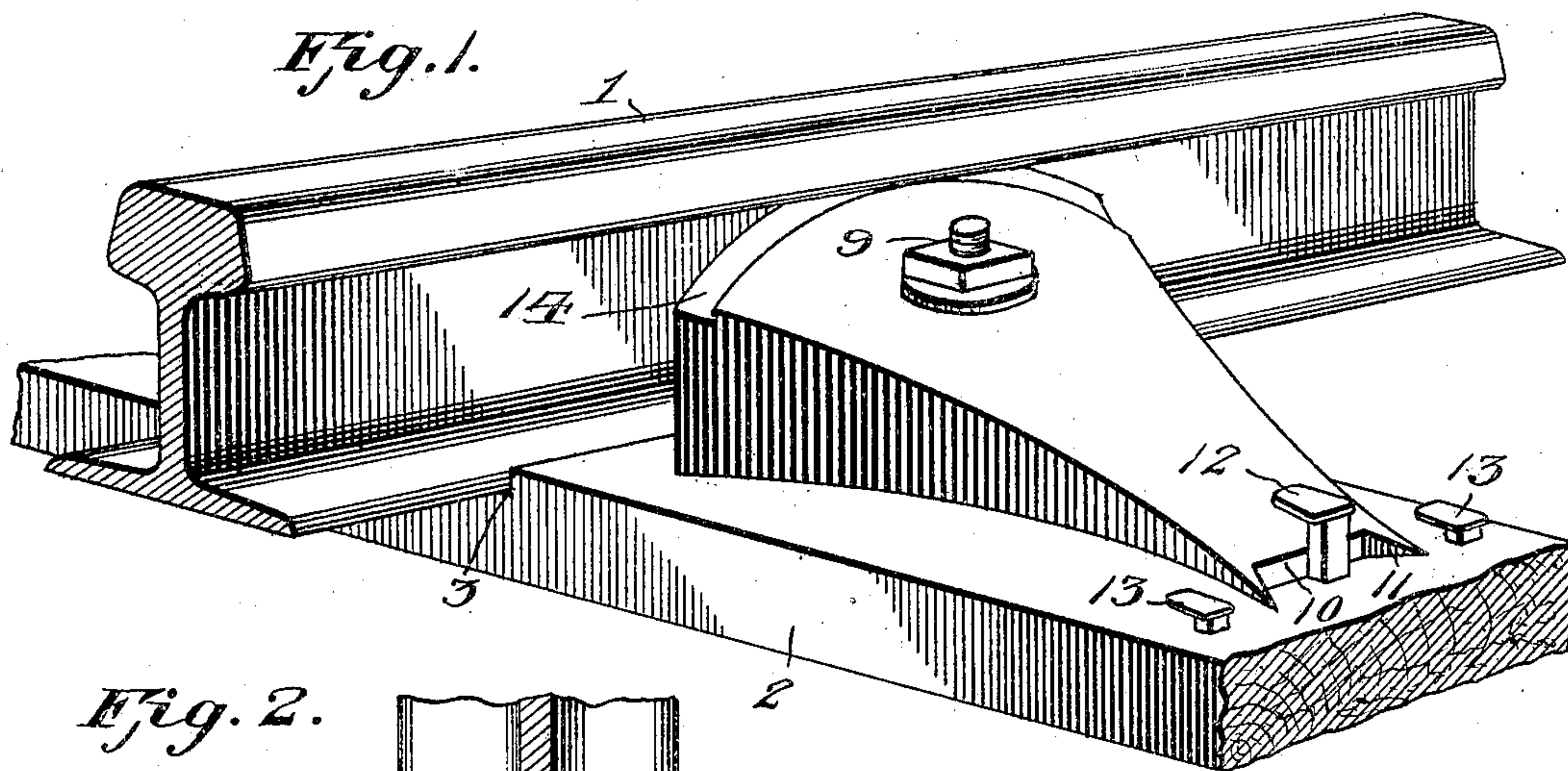
No. 793,644.

PATENTED JULY 4, 1905.

J. EICHHOLTZ.

FASTENING DEVICE FOR SECURING RAILWAY RAILS.

APPLICATION FILED OCT. 15, 1904.



Witnesses

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FASTENING DEVICE FOR SECURING RAILWAY-RAILS.

SPECIFICATION forming part of Letters Patent, No. 793,644, dated July 4, 1905.

Application filed October 15, 1904. Serial No. 228,582.

To all whom it may concern:

Be it known that I, JOHN EICHHOLTZ, a citizen of the United States, residing at Chamita, in the county of Rio Arriba and Territory of New Mexico, have invented new and useful Improvements in Fastening Devices for Securing Railway-Rails, of which the following is a specification.

This invention relates to fastening devices for securing railway-rails, and has for its object to produce a comparatively simple inexpensive device of this character which will in practice effectually prevent spreading, to prevent the rails from spreading on heavy grades, and one wherein the rails will be firmly secured to the sleepers and ties.

To these ends the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a railway-rail and its sleeper, showing my improved device applied thereto. Fig. 2 is a top plan view of the same, partly in section. Fig. 3 is a section taken on the line 3 3 of Fig. 2. Fig. 4 is an end elevation of the fastening-block.

Referring to the drawings, 1 designates a railway-rail, and 2 a support therefor in the form of a chair or sleeper, the latter being provided with a recess 3, in which the base of the rail seats. These parts may be of the usual or any appropriate construction and material, inasmuch as they constitute no part of the invention.

In accordance with my invention I provide upon the sleeper 2, at one side of the base of the rail, a pair of stops or abutments 4, preferably in the form of spikes driven into the material of the chair and in turn braced by lugs 5, cast onto the latter, while at the other side of the rail, opposite the abutments 4, I pivot to the sleeper 2 a fastening block or member 6, designed to bear at its inner end against the web 7 and under side of the tread 8 of the rail. The inner bearing-face of the block 6 is curved, as shown more clearly in Fig. 2, the line of curvature being eccentric to the pivotal bolt

or axle 9, while at the outer end of the block there is formed a recess 10, the end walls 11 of which constitute stops or abutments for engagement with a spike or other fastening device 12, by which the end of the block is prevented from springing upward from the sleeper. There is also provided on the sleeper at opposite sides and suitably remote from the side walls of the block 6, adjacent to the rear end of the latter, a pair of stops 13 in the form of spikes with which the outer end of the block may under certain conditions contact to limit its swinging or pivotal movement. The block 6 has also formed in its upper face at its inner bearing end a seat or depression 14, which receives and fits snugly against the under face of the tread of the rail, while the lower face of the block at its inner end bears, as at 15, upon the upper face of the base 16, attention being directed to the fact that the upper face of the block at its inner end is concaved, as at 16', whereby it curves upwardly from its center to its side edges to thus bind tightly beneath the head of the rail when the block is turned.

In practice when the parts are assembled as illustrated in the drawings the inner end of the block 6 will, as before stated, bear firmly against the tread, base, and web of the rail, thereby maintaining the latter firmly to its seat upon the sleeper 2 and at the same time pressing the rail laterally and firmly against the stops or abutments 4. With the parts in the normal position (illustrated in Fig. 2) if the rail expands or contracts under the influence of heat or cold it will of course tend to move longitudinally and owing to frictional contact with the inner end of block 6 turn the latter on its pivot. Owing, however, to the bearing-face of the block being eccentric to the pivotal axis, any tendency on the part of the block to rotate will serve to crowd the rail laterally against the abutments 4, as will be readily understood, thereby securely binding the rail against movement and preventing the expansion or contraction of the same. The spike 12 will serve to hold the outer end of the block firmly to its seat and in the event

of the block turning upon its pivot sufficiently will act in conjunction with the walls 11 to limit such movement, this movement at the sametime being further limited and prevented
5 by contact of the walls with the stop-lugs 13.

From the foregoing it is apparent that I produce a simple device admirably adapted for the attainment of the ends in view, it being understood that minor changes in the details herein set forth may be resorted to without departing from the spirit of the invention.
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Having thus described the invention, what is claimed as new is—

1. The combination with a railway-rail and
15 its support, of an abutment provided on the latter for engagement with one side of the rail, a pivoted fastening-block arranged upon the opposite side of the rail and provided with stops or abutments, and a fastening device
20 for the block designed to contact with the stops or abutments for limiting the pivotal movement of the block.

2. The combination with a railway-rail and its sleeper, of an abutment provided on the
25 latter for engagement at one side of the rail, and a bearing-block pivoted to the sleeper at the other side of the rail and having its bearing edge curved eccentrically to its pivotal axis, there being provided in the upper face

of the block a seat for the lower face of the tread of the rail. 30

3. The combination with a railway-rail and its sleeper, of an abutment provided upon the latter for engagement at one side of the rail, a bearing-block pivoted to the sleeper at the
3 other side of the rail and having its outer end recessed, and a fastening device for the outer end of the block seated within the recess and coöperating with the end walls of the latter to limit the pivotal movement of the block. 40

4. The combination with a railway-rail and its sleeper, of an abutment provided on the latter for engagement at one side of the rail, a pivotal bearing member disposed on the opposite side of the rail, and having stops or
4 abutments, a fastening device for the block disposed between the stops or abutments to coöperate therewith for limiting the pivotal movement of the block, and supplemental
5 stops provided on the sleeper for engagement with the block to limit its pivotal movement. 50

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

JOHN EICHHOLTZ.

Witnesses:

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AMOS H. PRICE.