

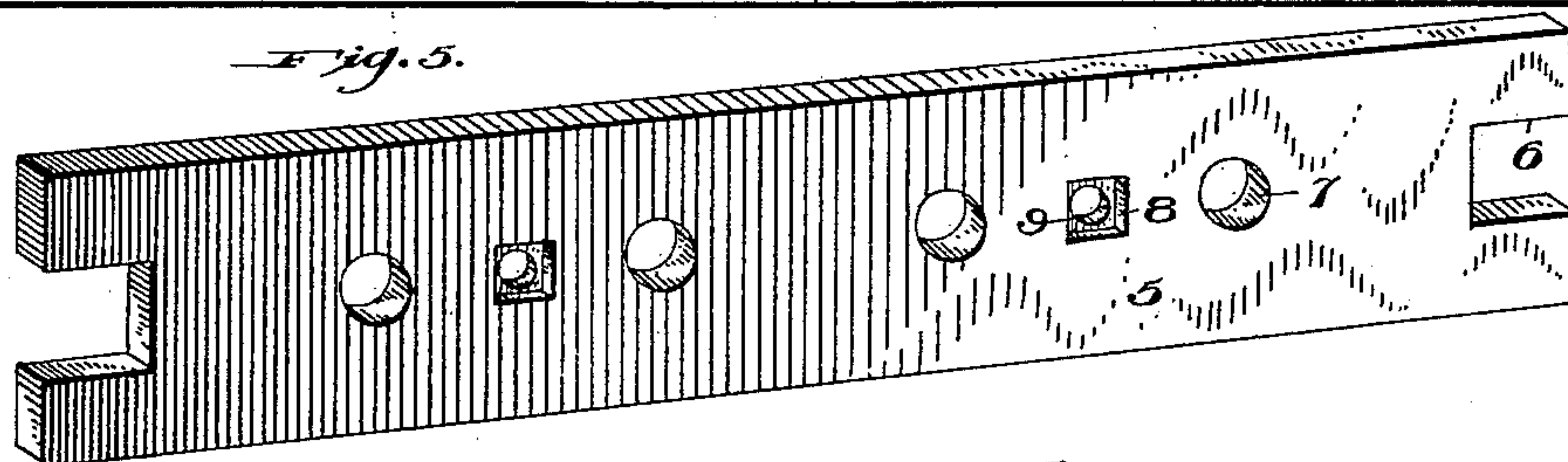
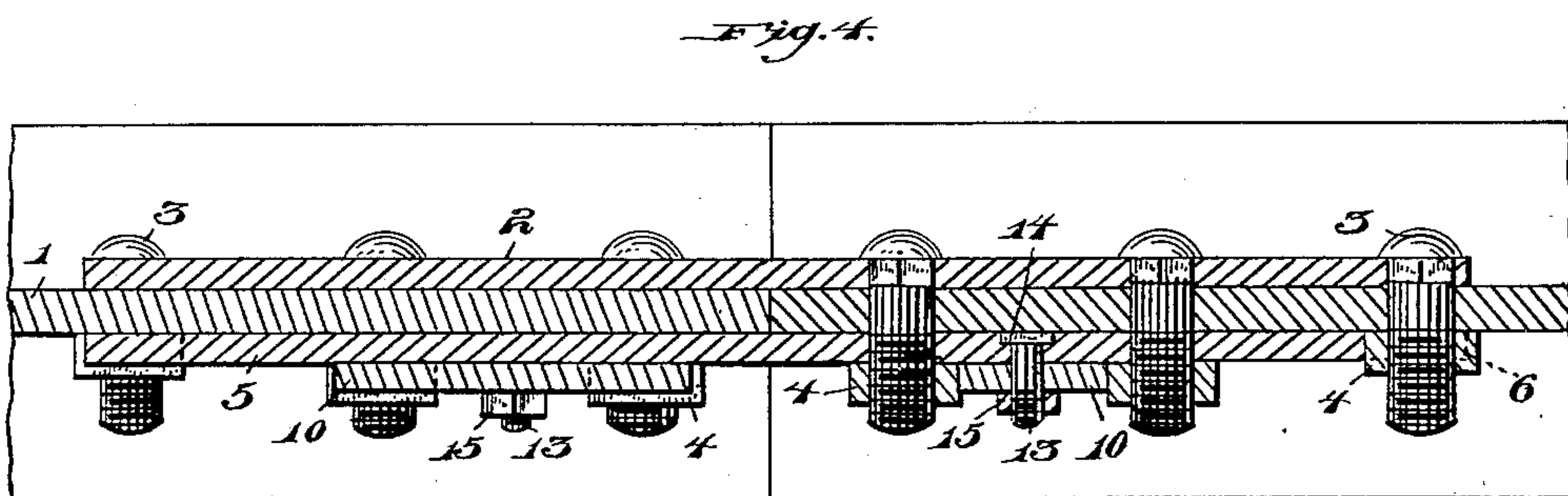
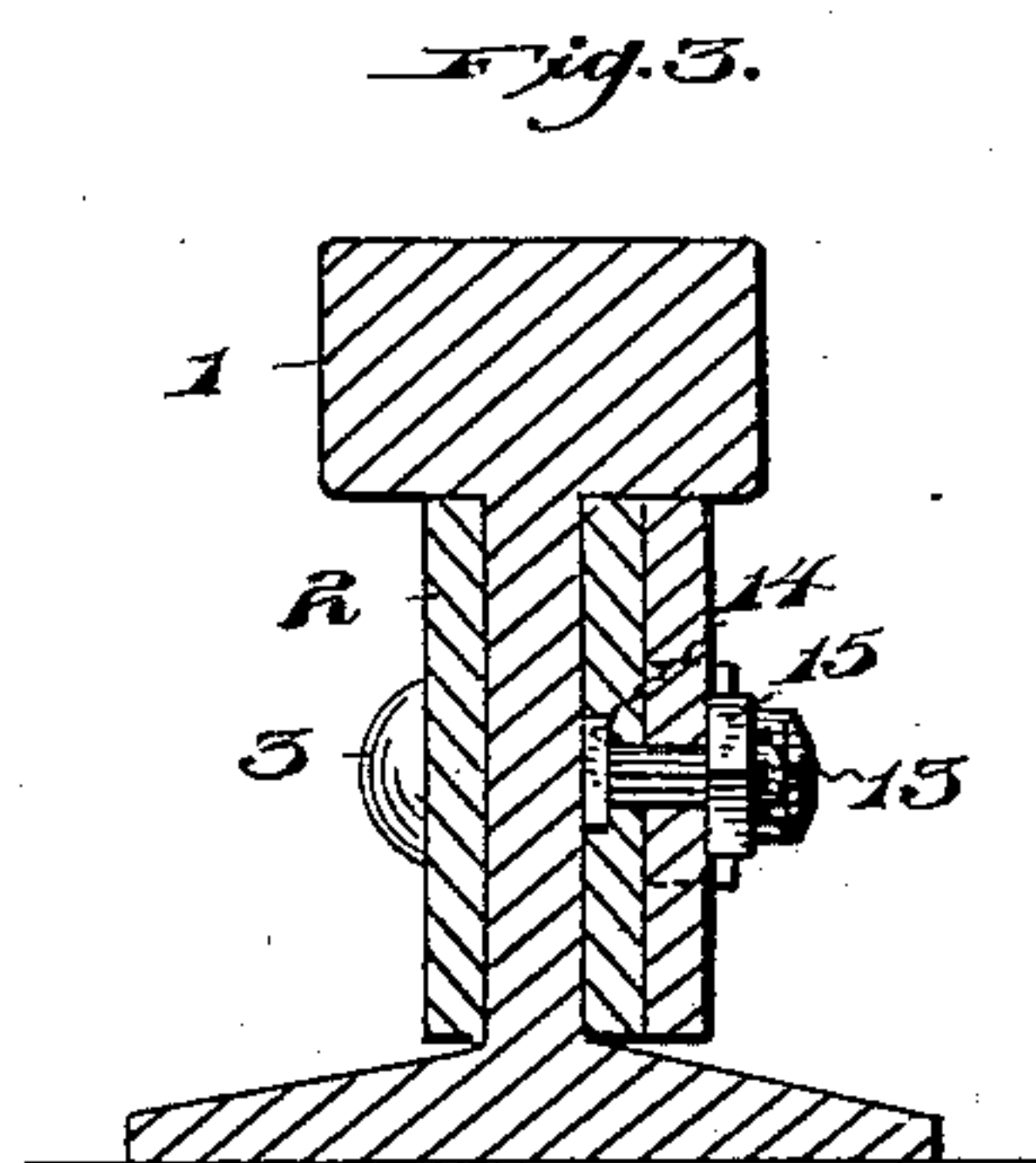
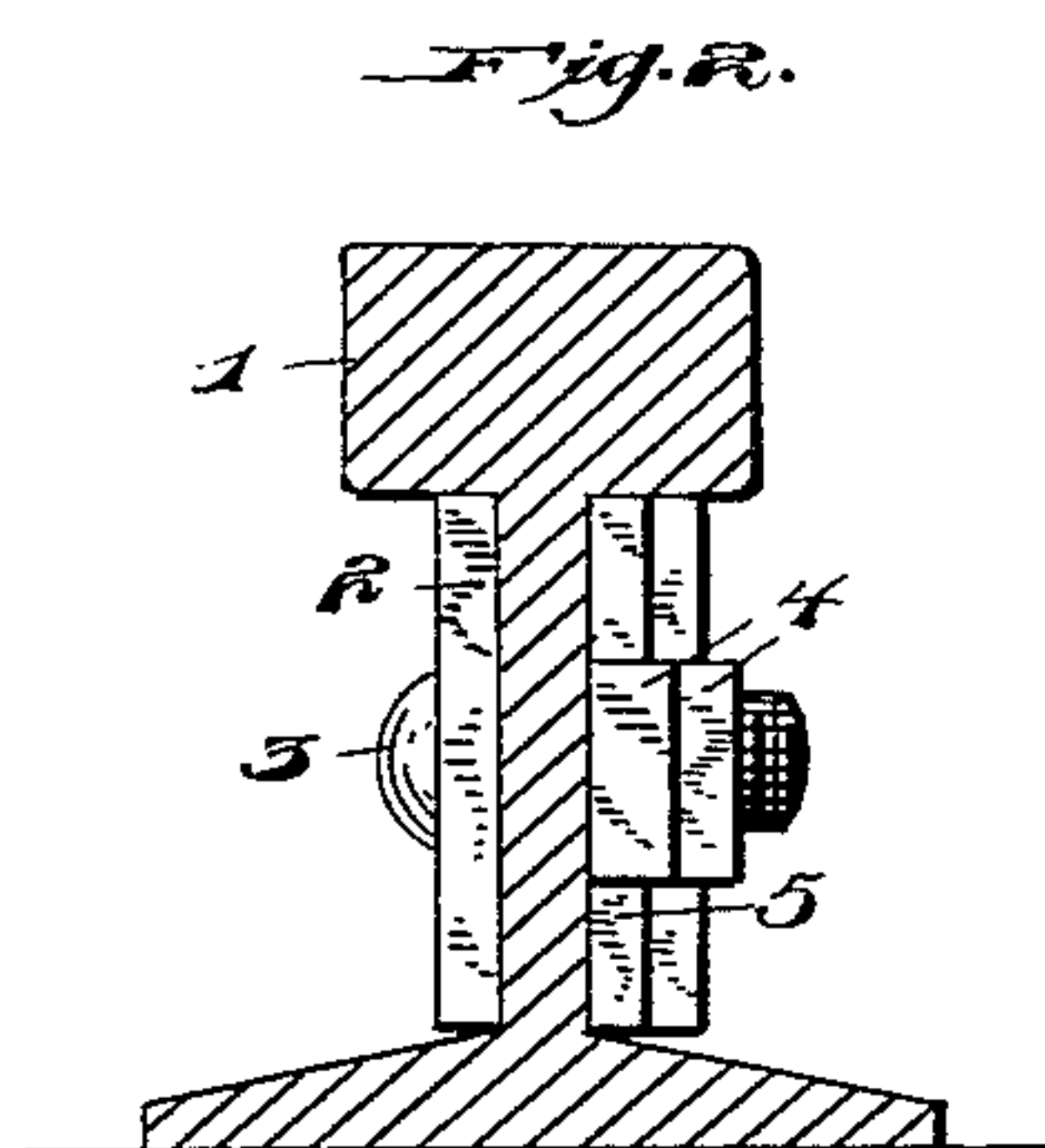
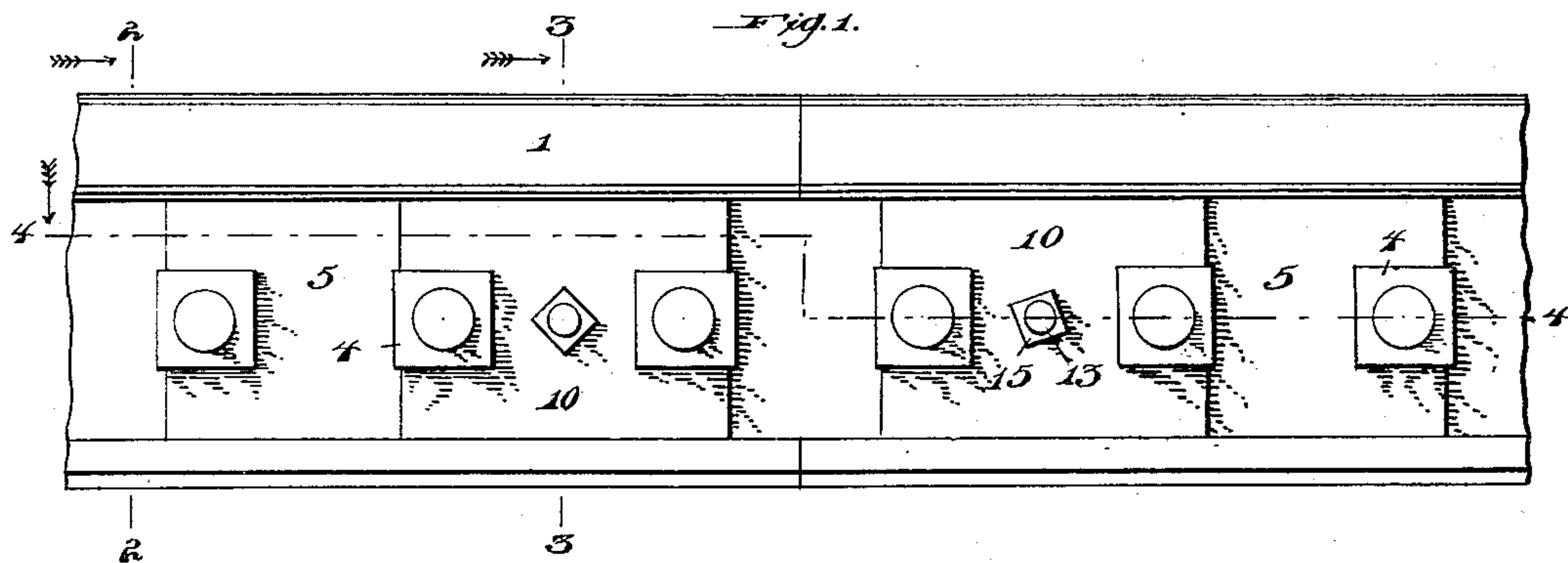
No. 632,501.

Patented Sept. 5, 1899.

E. LING.  
NUT LOCK.

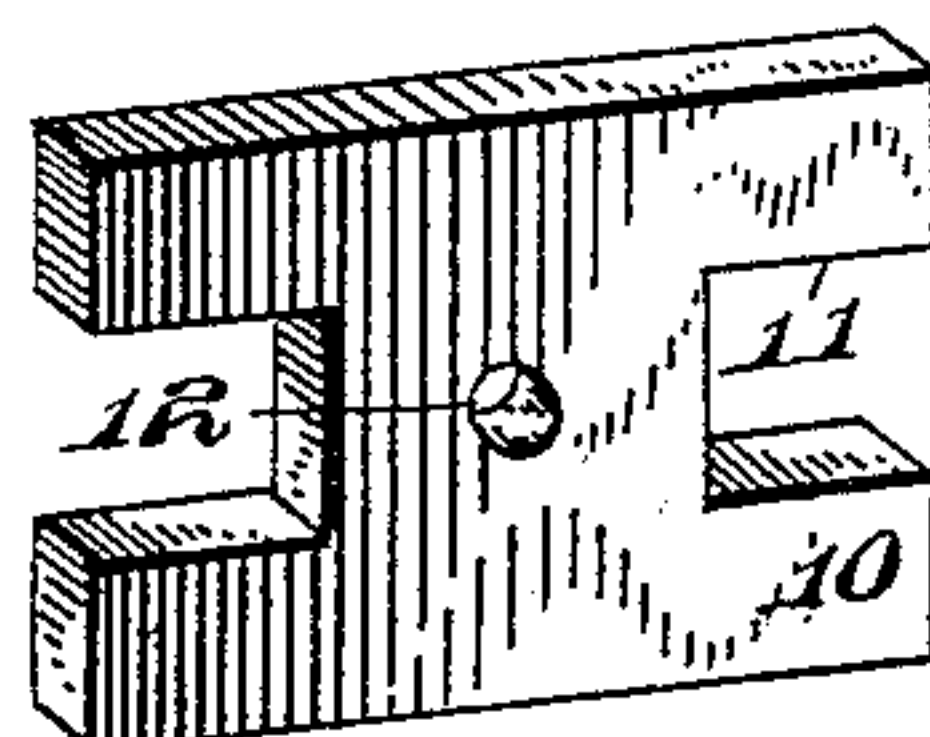
(Application filed June 7, 1899.)

(No Model.)



WITNESSES:

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INVENTOR

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# UNITED STATES PATENT OFFICE.

EDWARD LING, OF PITTSBURG, PENNSYLVANIA.

## NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 632,501, dated September 5, 1899.

Application filed June 7, 1899. Serial No. 719,686. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD LING, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Nut-Locks, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in rail-joints, and more particularly to nut-locks.

The invention has for its object to provide new and novel means that will effectually prevent the nuts and bolts from becoming loose, caused by the constant jar incident to rails during heavy freight traffic.

15 Another object of the invention is to construct a nut-lock of this class wherein the ordinary nuts and bolts that are now employed may be used.

20 A still further object of the invention is to construct a device of the above-referred-to class that will be extremely simple in its construction, strong, durable, and comparatively inexpensive to manufacture.

25 With the above and other objects in view the invention finally consists in the novel combination and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claim.

30 In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like numerals of reference indicate corresponding parts throughout the several views thereof, and in which—

35 Figure 1 is a side elevation of two sections of rails with my improved nut-locks applied thereto. Fig. 2 is a transverse vertical sectional view taken on the line 2 2 of Fig. 1. Fig. 3 is a like view taken on the line 3 3 of Fig. 1. Fig. 4 is a horizontal longitudinal sectional view taken on the line 4 4 of Fig. 1. 40 Fig. 5 is a perspective view of the retaining-plate. Fig. 6 is a perspective view of the locking-plate.

45 Referring to the drawings by reference-numerals, 1 indicates the section of the rails; 2, the ordinary fish-plate; 3, the bolt, and 4 the nut.

The reference-numeral 5 represents the retaining-plate, having formed in the ends thereof square recesses 6 and in the body portion thereof apertures 7 for the reception of bolts 3. Between the apertures 7 and in alignment therewith is arranged a recess 8, and an aperture 9 is arranged in the said recess, extending through the retaining-plate. 55

The reference-numeral 10 indicates a locking-plate having formed in the ends thereof cut-away portions 11 and centrally arranged therein an aperture 12. 60

The bolts and fish-plate are secured to the web of the rail in the ordinary manner. The retaining-plate is then placed in its proper position, allowing the bolts to pass through the apertures 7, and the bolts at the end are adapted to fit in the recesses 6. An auxiliary bolt 13, having a head 14, which is adapted to fit in the recess 8, is placed in said retaining-plate and passes through the aperture 9, being provided at its screw-threaded end with a nut. Said auxiliary bolt is also adapted to pass through the aperture 12 of the locking-plate, the cut-away portions 11 of the locking-plate being adapted to fit over and engage the sides of the nuts. The nut 15 is then driven home, and the nuts and bolts are securely locked by this means. 65 70 75 80

It will be noted that the retaining-plate contains two sets of bolts and nuts, as heretofore described, this being for the purpose of illustration, as the same may contain only one set or any number, as desired. 85

It will be seen that in case repairs are necessary upon the road-bed or in case it is desired to replace a new rail the device may be readily removed and again placed in proper position. 90

Particular attention is directed to the fact that various changes may be made in the details of construction of my improved nut-lock without departing from the general spirit of my invention. 95

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

The combination with the fish-plate 2, and series of bolts 3, 3, and nuts 4, 4, of the retaining-plate 5, provided in its ends with the recesses 6, 6, adapted to receive the end nuts 100

of the series, said plate being further provided with apertures 7, 7, and 9, 9, and with recesses 8, 8, locking-plates 10 having a central aperture 12 registering with the apertures 9,  
5 securing-bolts engaging in said apertures 9 and 12 with their heads engaging the recesses 8 in the retaining-plate, the ends of said locking-plates 10 being cut away to receive the

nuts 4, 4, adjacent to said ends, substantially as described.

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

EDWARD LING.

Witnesses:

JOHN NOLAND,  
ARTHUR HAYMAKER.