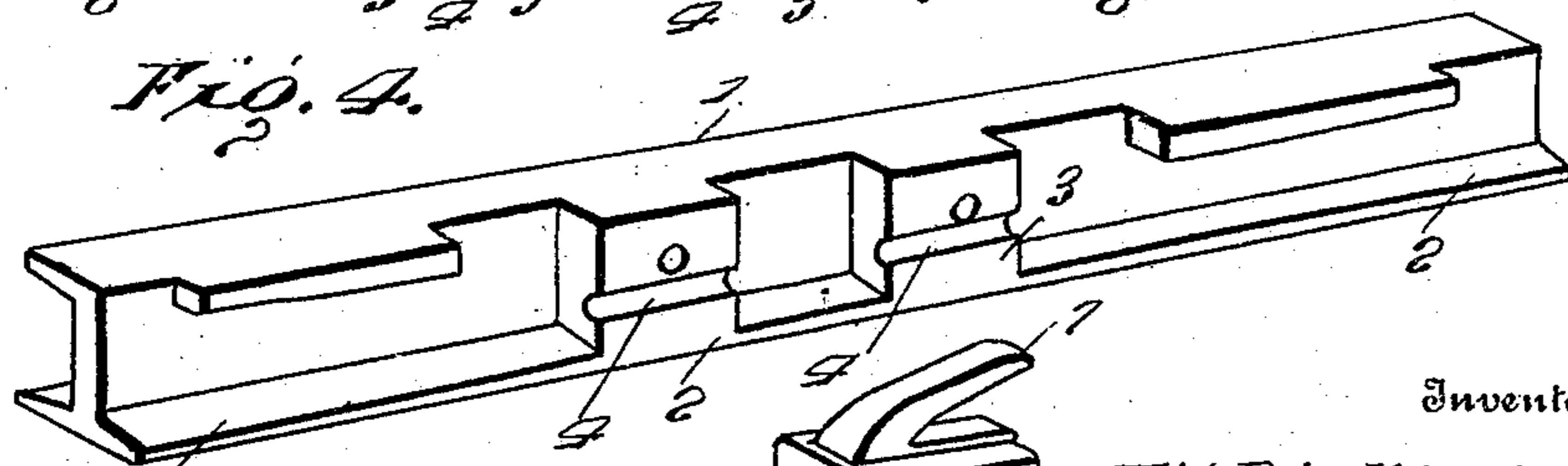
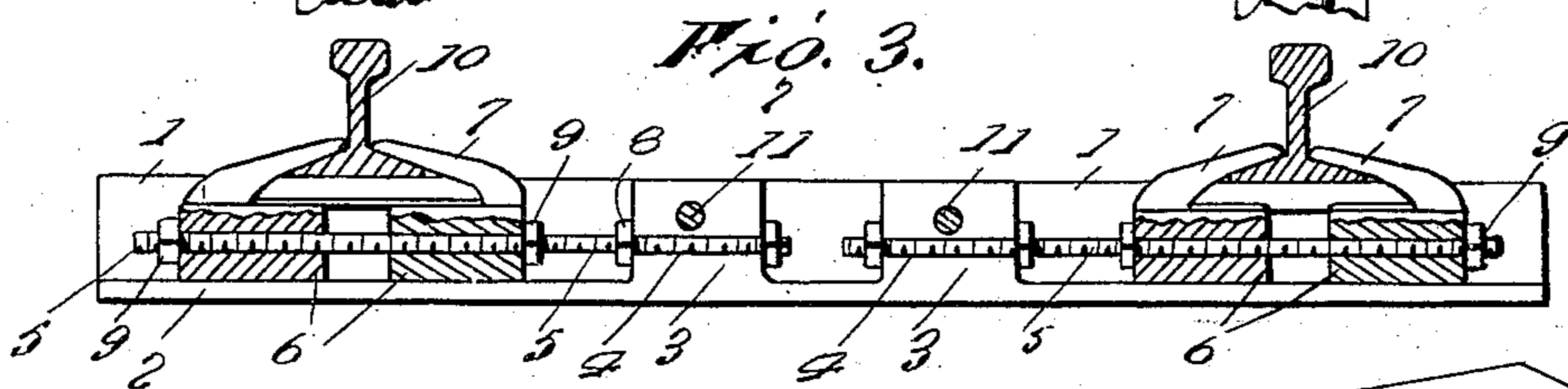
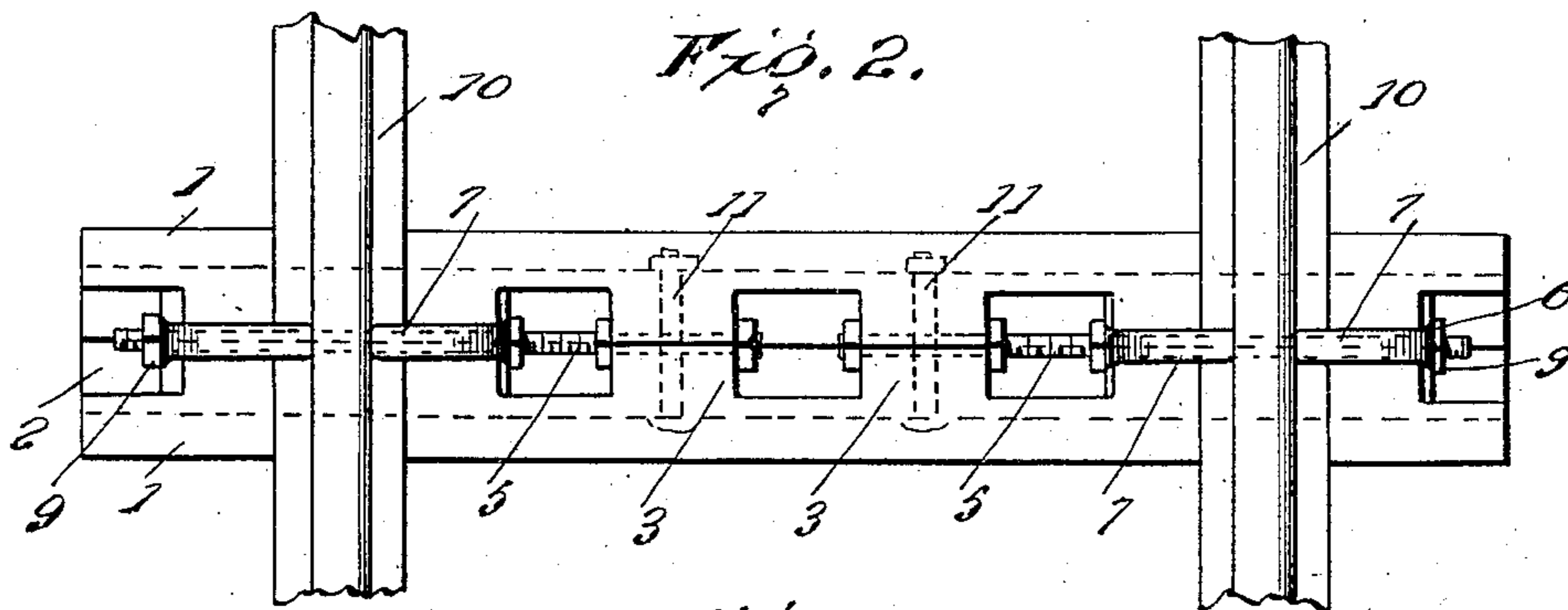
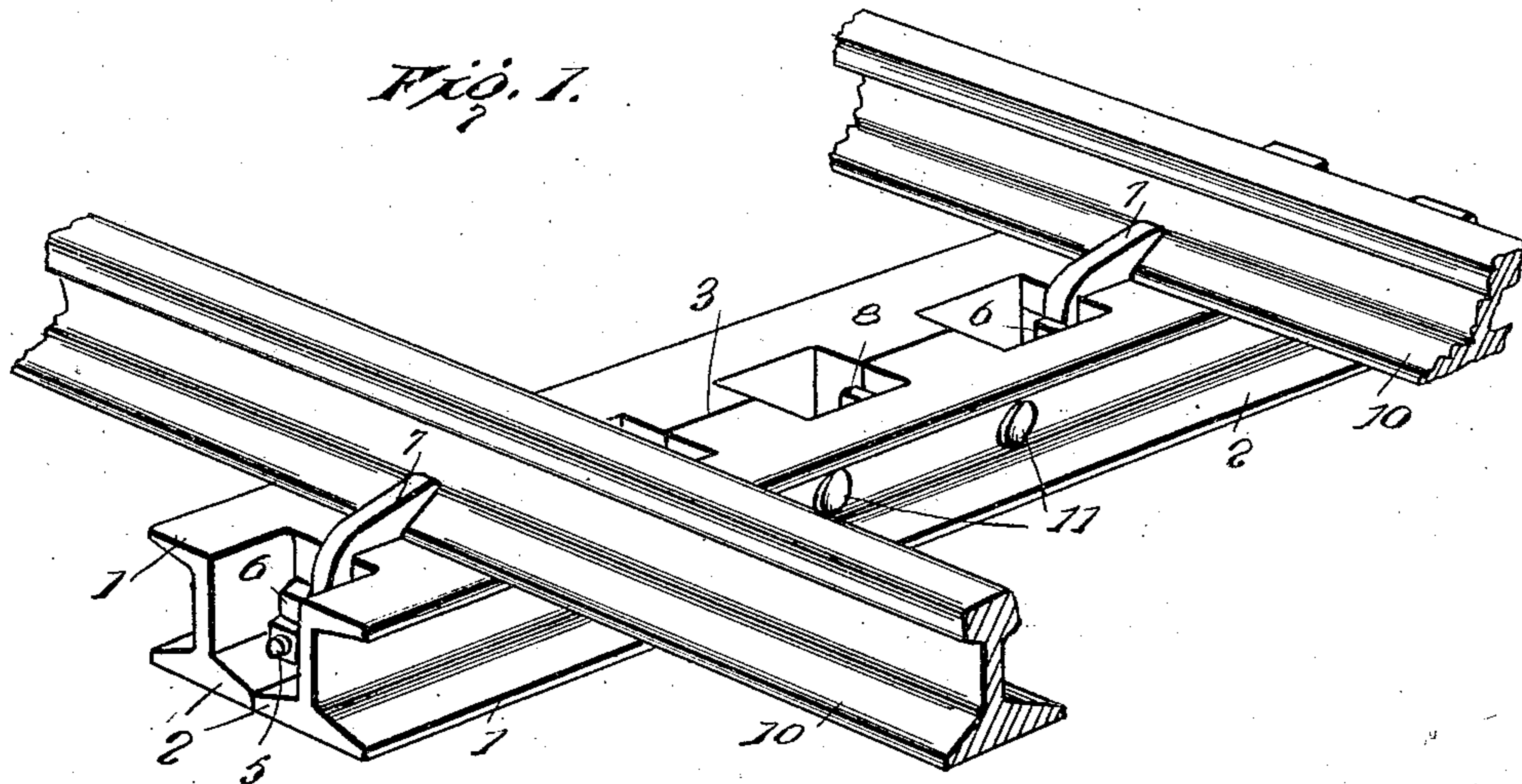


No. 842,752.

PATENTED JAN. 29, 1907.

F. V. BICKING.
RAILWAY TIE.

APPLICATION FILED JUNE 26, 1906.

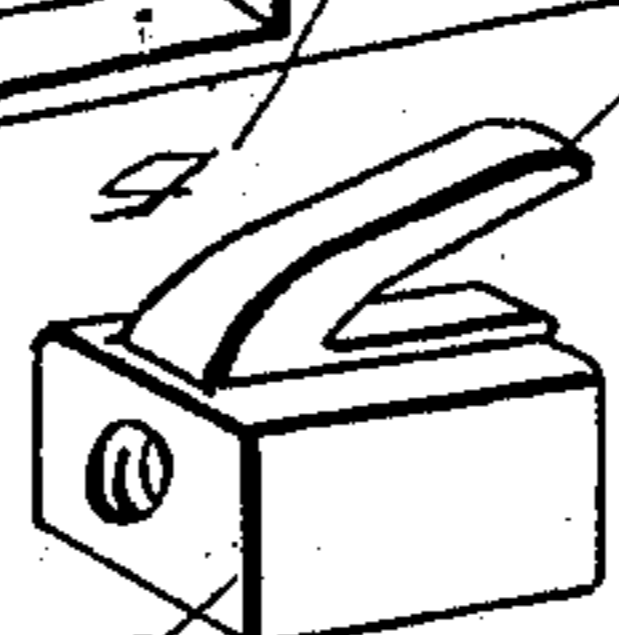


Witnesses

J. M. Woodson

Fig. 5.

By



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FREDERICK V. BICKING, OF PHOENIXVILLE, PENNSYLVANIA.

RAILWAY-TIE.

No. 842,752.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed June 26, 1906. Serial No. 323,515.

To all whom it may concern:

Be it known that I, FREDERICK V. BICKING, a citizen of the United States, residing at Phoenixville, in the county of Chester and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Ties, of which the following is a specification.

This invention relates to metallic railway-tie construction, and aims to provide a practical and advantageous article of this type, the details of construction of which will appear fully as the description proceeds.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a perspective view of a tie embodying the invention. Fig. 2 is a top plan view. Fig. 3 is a vertical sectional view. Fig. 4 is a detail perspective view of one of the sections of the tie. Fig. 5 is a detail perspective view of one of the rail-clamps.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Specifically describing the invention, a tie comprising the same is preferably made of two complementary sections 1, both of which are of the same form and which together constitute the body of the tie. Each section 1 includes a base 2, and the bases 2 of the sections are in contact with one another throughout the length thereof. The upper portions of the sections 1, however, are spaced apart except at two points, whereat they are formed with laterally-abutting enlargements 3. The enlargements 3 extend from each section 1 and abut with one another to form spaced abutments located adjacent to the center of the tie, and the inner abutting faces of the enlargements 3 are formed with longitudinal seats 4, adapted to register, and thereby constitute openings in which are received adjusting-rods 5, which cooperate with the rail-clamps 6. The rail-clamps 6 are mounted for movement longitudinally of the tie and are arranged between the upper portions of the sections 1. Each rail-clamp 6 has a clamping member 7 extending upwardly therefrom to engage over the base of a rail at one side thereof and secure said rail to the tie. Two clamps 6 are located at each end of the tie and cooperate

with one another in securing rails thereto.

One of the rods 5 is used for each pair of rail-clamps 6 and is arranged longitudinally in the space between the section 1, each rod 5 passing through longitudinal openings in the two clamps 6, with which it cooperates.

Each rod 5 is threaded in its length and is adjustably secured to the adjacent abutment formed by the adjacent enlargements 3 by means of nuts 8, which are arranged so as to bear against opposite ends of said adjacent abutment and fix the position of the rod 5 with reference thereto. By adjusting the rod 5 by means of the nuts 8 cooperating therewith said rod may be moved longitudinally with regard to its abutment to shift the position of the rail-clamps 6, through which it passes, and thereby determine the position of the rails which are engaged by said rail-clamps.

Nuts 9 are provided for each rod 5, and these nuts engaging the outer extremities of the clamps 6 will effect the adjustment of the clamps 6 with reference to one another, so that the nuts 9 constitute the means for adjusting the rail-clamps of each pair of clamps with respect to each other, and independent means, consisting of the nuts 8, is provided, whereby each pair of rail-clamps is adjusted to shift the position of the rail engaged thereby. In other words, the nuts 8 by adjustment simultaneously adjust a pair of rail-clamps, while the adjustment of the nuts 9 along the rods 5 effects the desired adjustment necessary to cause the clamps 6 to engage properly with the rails.

The rails are indicated at 10, and when secured in position by means of the clamps 6 and the operating mechanism of the latter said rails are firmly attached to the tie in a manner readily apparent. The sections 1 of the tie are connected together by any substantial means, and preferably by means of transverse rods or fastenings 11, which pass through the abutments constituted by the enlargements 3. The fastenings 11 may pass both above and below the rods 5, and, if necessary, the number of fastenings 11 may be varied according to the size of the tie and other governing conditions of service.

The construction of the tie is such that the rails are firmly held in position, may be readily placed in connection with the ties, may be readily removed, and such construction gives rise to other advantages obvious from the foregoing description.

Having thus described the invention, what is claimed as new is—

1. In combination, a railway-tie, a pair of means connecting each pair of clamps with rail-clamps arranged at each end of said tie, the tie for simultaneously adjusting the clamps of each pair, and means for adjusting said clamps of each pair with reference to one another.
2. In combination, a railway - tie, rail-clamps arranged in pairs located at opposite ends of the tie and adjusting-rods connected with the pairs of clamps, and nuts applied to said rods and each coöperating with the tie to adjust the position of a rod and to effect simultaneous adjustment of a pair of the clamps, and nuts arranged to adjust clamps of each pair with reference to one another.
3. In combination, a railway-tie comprising complementary sections embodying base portions in contact throughout the length of the tie, the upper portions of the sections being spaced apart, abutments at intervals in the space between the sections, rail-clamps movably mounted in the space between the sections, and rods connected with the abutments and with the rail-clamps including means mounted thereon for effecting the simultaneous adjustment of a pair of said clamps, or individual adjustment of the clamps with reference to one another.
4. In combination, a railway-tie comprising complementary sections embodying base portions in contact throughout the length of the tie, the upper portions of the section being spaced apart, abutments at intervals in

the space between the sections, rail-clamps movably mounted in the space between the sections, rods connected with the abutments and with the rail-clamps including means mounted thereon for effecting the simultaneous adjustment of a pair of said clamps or individual adjustment of the clamps of such pair with reference to one another.

5. In combination, a railway - tie embodying complementary longitudinal sections, transverse fastening means connecting the sections together, each section consisting of a base in contact with the base of the other section throughout the length of the tie, rail-clamps mounted between the upper portion of the tie and means for actuating said rail-clamps.

6. In combination, a railway - tie embodying complementary longitudinal sections, transverse fastening means connecting the sections together, each section consisting of a base in contact with the base of the other section throughout the length of the tie, rail-clamps mounted between the upper portion of the tie, each section being formed with enlargements projecting over the adjacent sides thereof, and constituting spaced abutments and members connecting the abutments with the rail-clamps for effecting the actuation of said clamps.

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

FREDERICK V. BICKING. [L. S.]

Witnesses:

P. W. KING,
GEORGE GEISER.