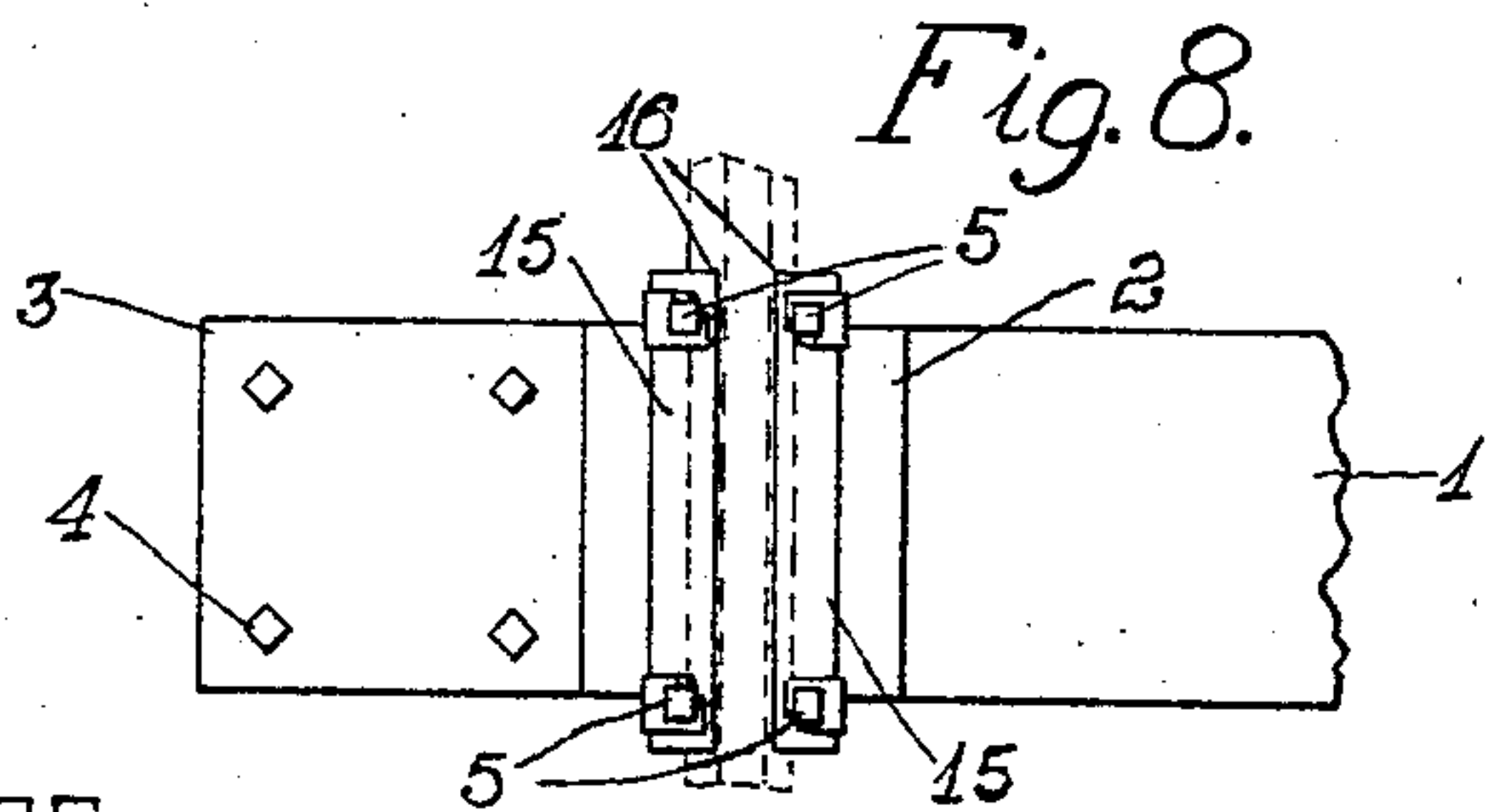
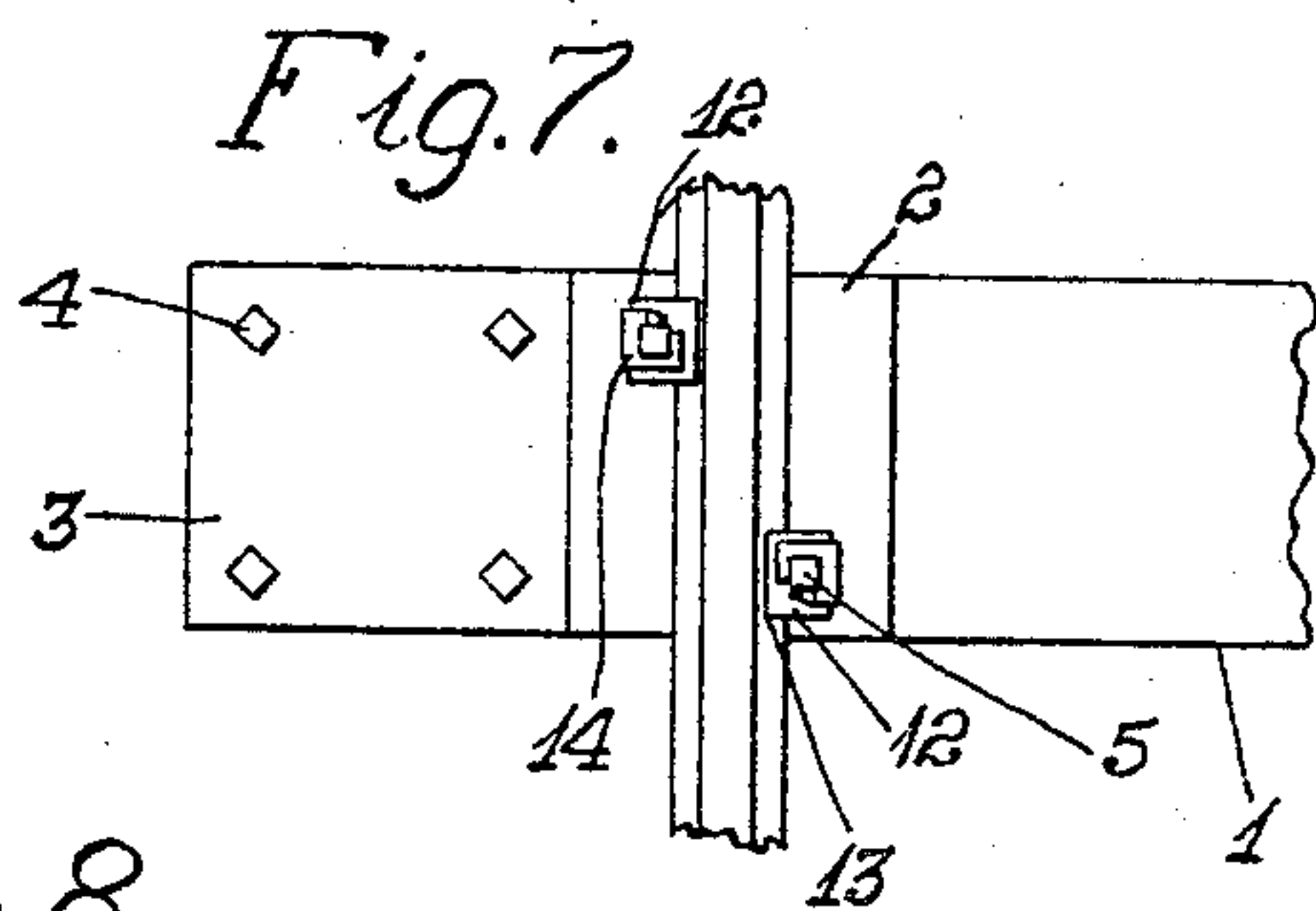
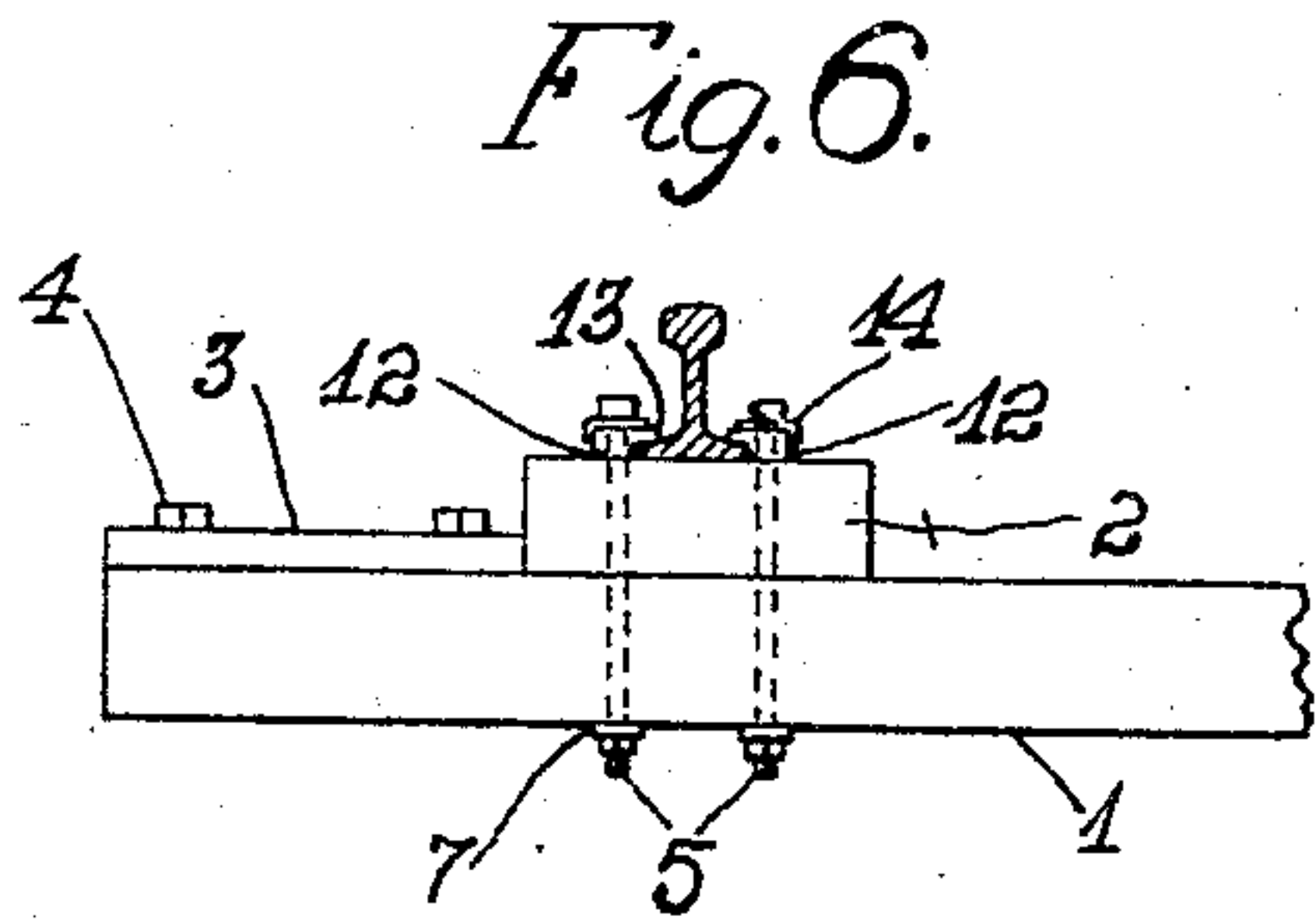
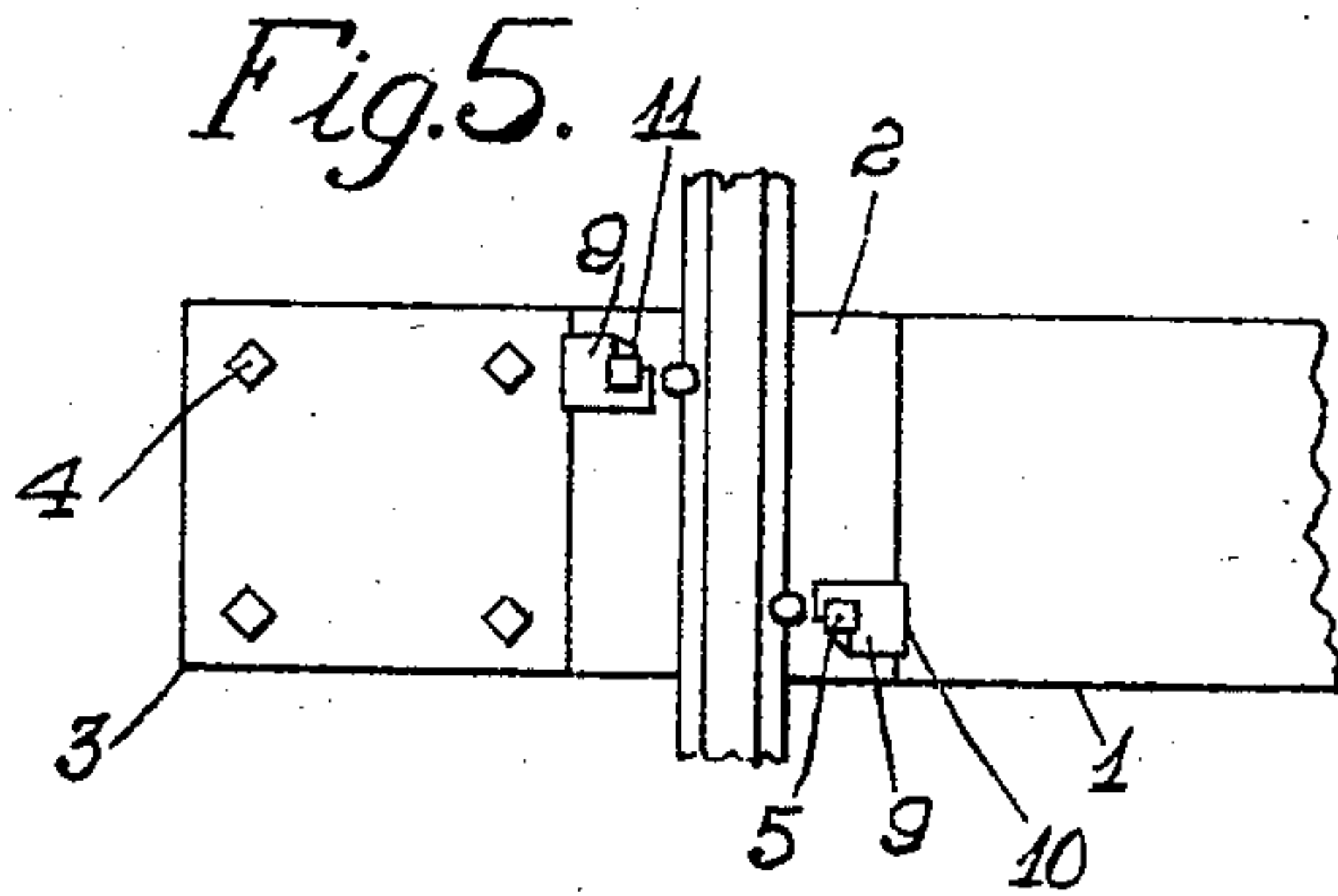
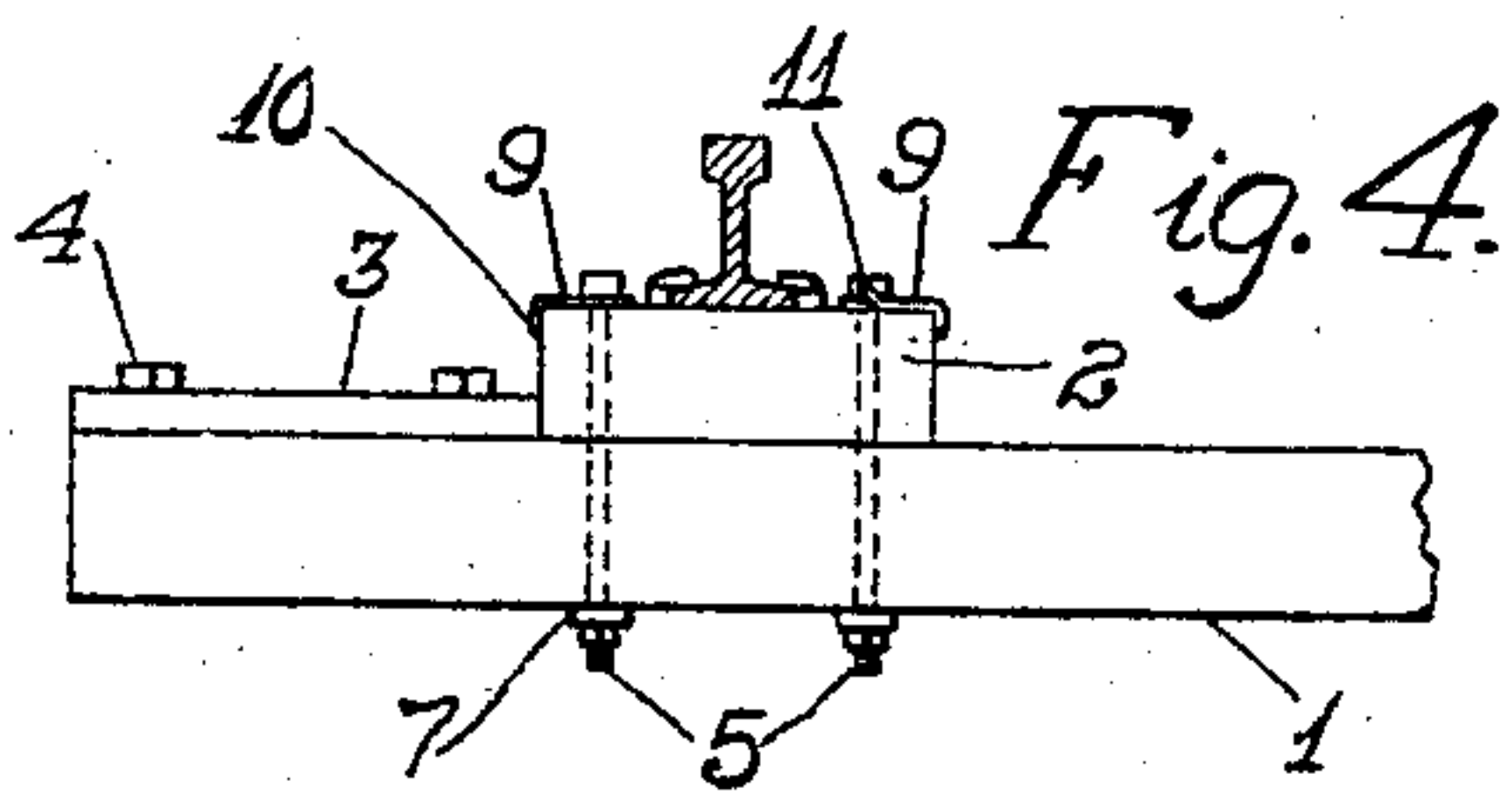
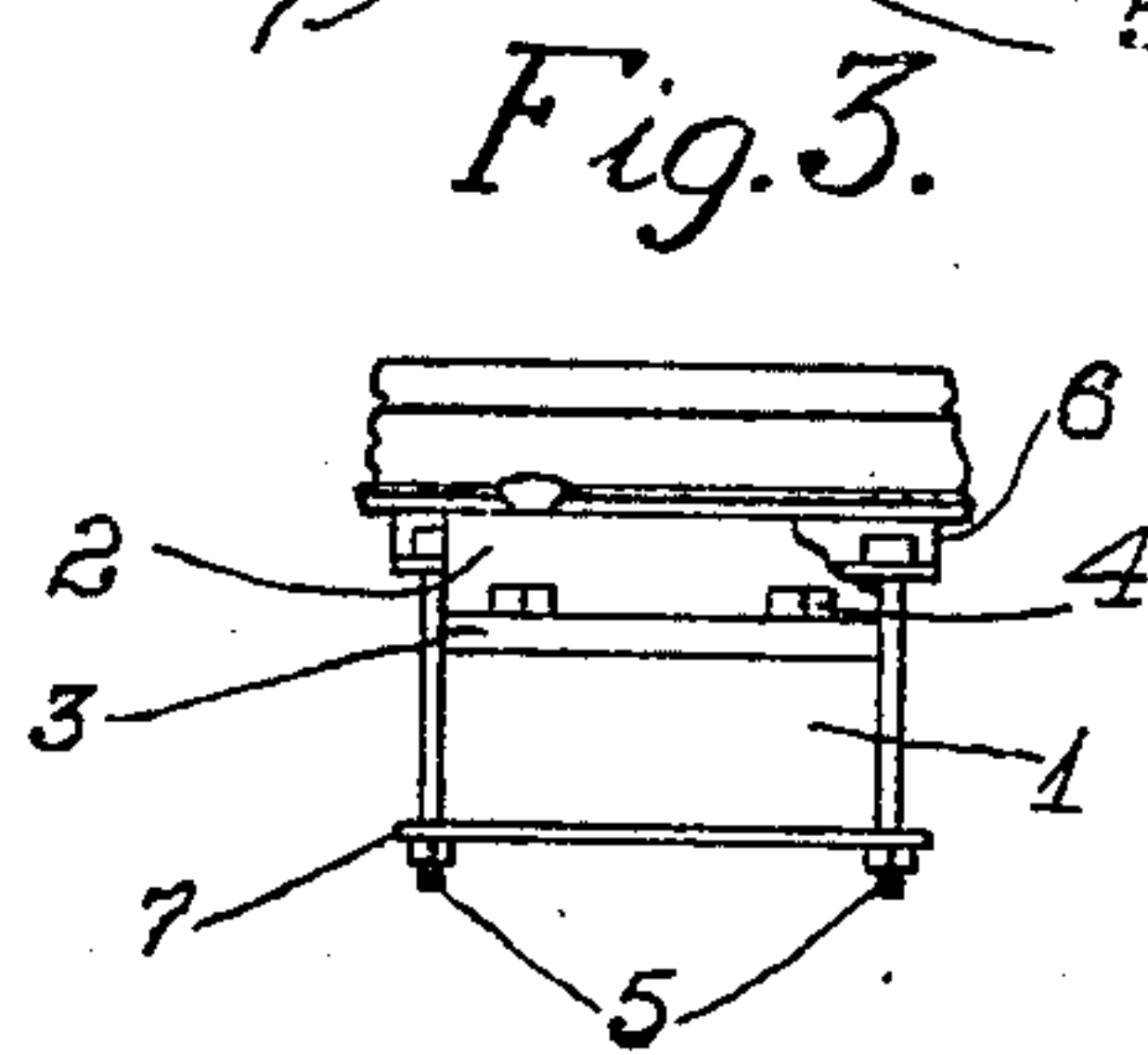
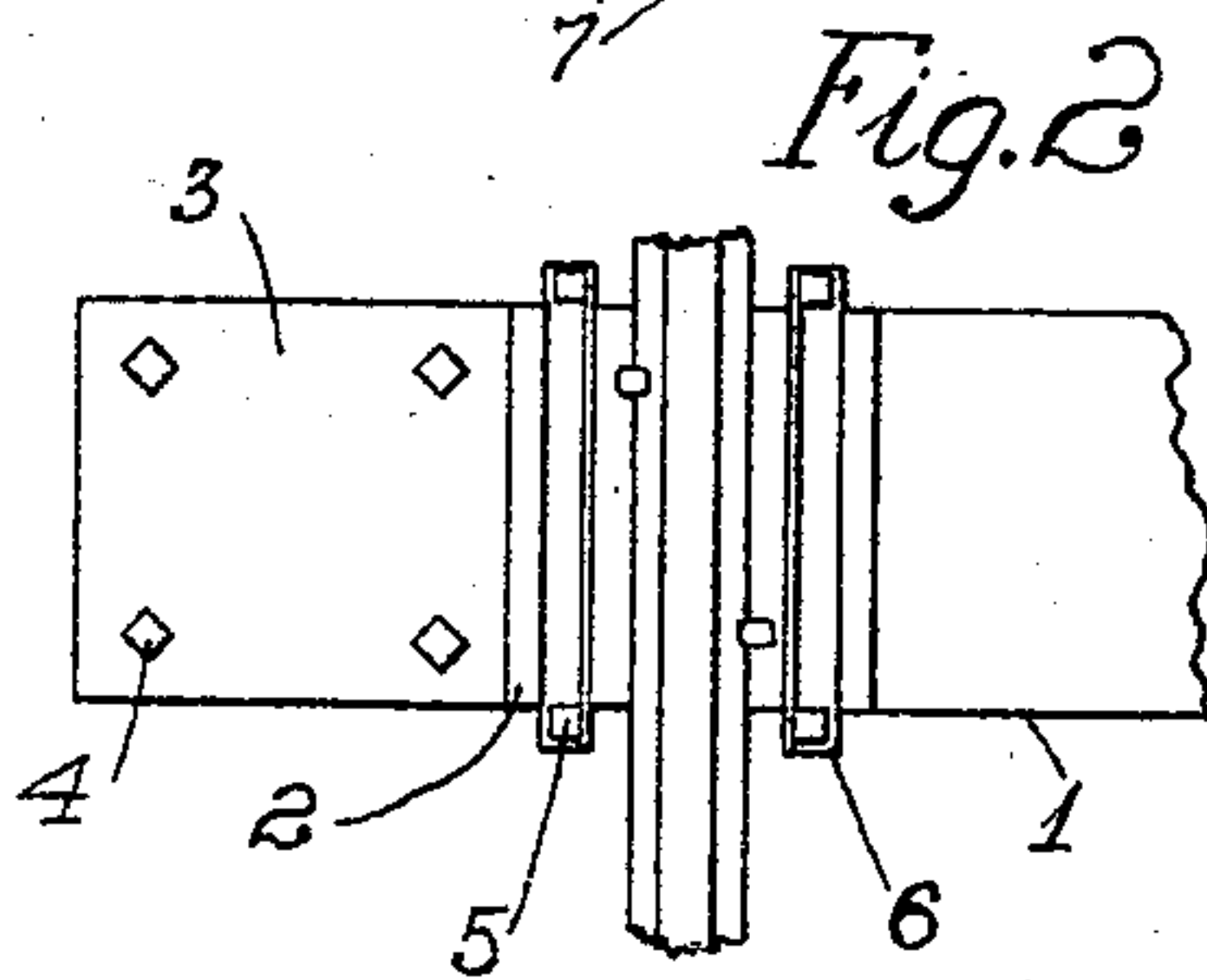
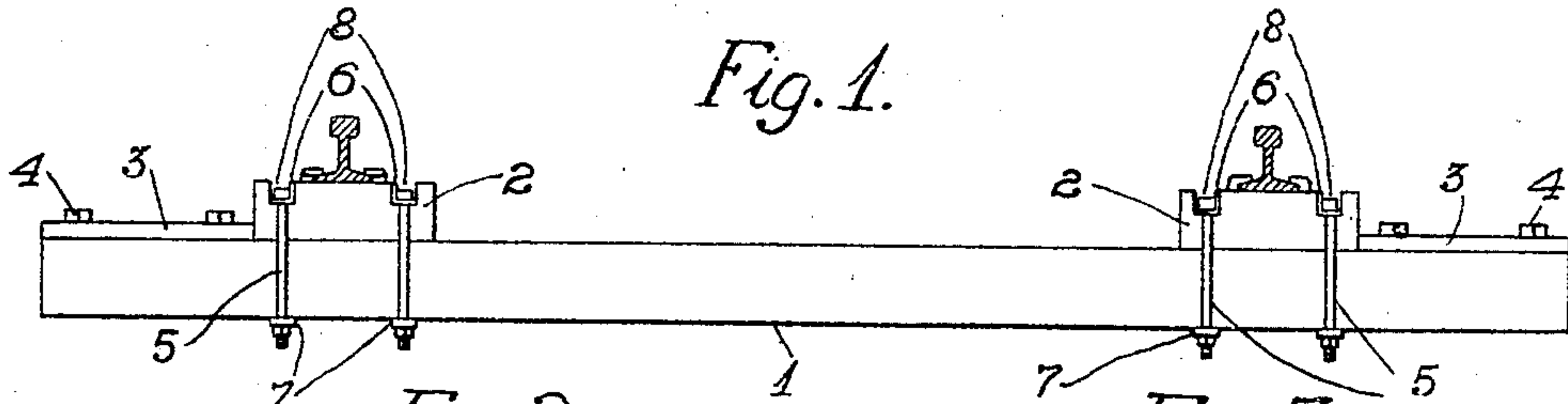


H. L. HOLLIS.
RAILWAY TIE.
APPLICATION FILED JAN. 11, 1909.

943,410.

Patented Dec. 14, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY L. HOLLIS, OF CHICAGO, ILLINOIS.

RAILWAY-TIE.

943,410.

Specification of Letters Patent.

Patented Dec. 14, 1909.

Application filed January 11, 1909. Serial No. 471,593.

To all whom it may concern:

Be it known that I, HENRY L. HOLLIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Railway-Ties, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to built-up railway ties, and has for its object improved ties built-up in greater part, of wooden members, in such manner that the complete tie is very inexpensive, but which at the same time possesses all the characteristics necessary for its purpose.

In the drawings which illustrate various forms possessing features of my invention, Figure 1 is a side view of a tie, Fig. 2 is a top view of one end of the tie, Fig. 3 is an end view, Fig. 4 is a side view of one end of the tie, showing a slightly modified arrangement, Fig. 5 is a top view of the parts shown in Fig. 4, Fig. 6 is an end view showing slightly modified arrangement, Fig. 7 is a top view of the parts shown in Fig. 6, and Fig. 8 is a top view of one end of a tie showing an arrangement which is a slight modification over the form shown in Figs. 6 and 7.

Referring to Figs. 1, 2, and 3, the main part of the tie is in the form of a wooden plank 1, whose cross-section is shown in Fig. 3. At each end of the plank and on top thereof is a rail block 2, for receiving a rail, these blocks being of the same width as the plank. Abutting against each of the blocks and extending to the adjacent end of the plank is an end block 3, these end blocks holding the rail blocks against lateral displacement toward the plank ends and are particularly effective on curves or other special work. These end blocks may be fastened to the plank by drive or screw spikes 4, or by bolts. The rail blocks are held in place by means of vertically extending bolts 5 which at the top engage clamping members which may be in the form of plates 6, and which at their lower ends engage other clamping members 7, which may also be in the form of plates.

In Figs. 1, 2, 3, the bolts are adjacent the sides of the rail blocks and planks and the top plates or bars 6 are laid in grooves 8 so that the bars and the bolt ends are below the upper plane of the rail blocks. The plank,

rail and end blocks, before being assembled, are treated with some preservative such as creosote and these wooden parts being comparatively thin, can be practically saturated with the preservative and thus the life of the ties is very greatly increased. The total amount of wood in the built-up tie is also very much less than a unitary wooden tie, which is also a very important feature, as wood, suitable for a unitary wooden tie is becoming more scarce every year.

In the arrangement shown in Figs. 4 and 5, the same elements are present as in Fig. 1, except that instead of the plates or bars 6 on the top of the rail blocks, clamping members 9 are used in the form of plates through which bolts pass, the outer edges of the plates being bent down at right angles to engage over the edge of the rail blocks and a corner of the plates being bent up to form nut lock extensions 11. The bolts also in place of passing alongside the rail blocks and plank pass through these parts, as shown.

In the arrangement shown in Figs. 6 and 7, the clamping members at the top of the rail blocks are in the form of blocks 12 having clamping extensions 13, which engage over the flanges of rails to be supported by the tie. The bolts 5 may pass through these blocks and through the rail blocks and plank, and if desired, lock washers 14 may be applied between the bolts and clamping blocks. As shown in Fig. 8, the clamping blocks can be extended across the entire rail blocks to form clamping bars 15, whose clamping flanges 16 extend over the flanges of the rail to be held, the bolts 5 extending downwardly alongside the rail blocks and plank, as in the arrangement shown in Fig. 1.

I do not wish to confine myself to the particular methods of fastening the rail block to the plank which are here described, as any suitable means may be readily employed. Also the flanges of the rail may be fastened to the rail block by any of the well known methods, and if desirable a single fastening device may be used for fastening the rail to the rail block and the rail block to the plank.

If any of the members of a tie become defective or destroyed by the weather or otherwise, they can readily be removed and replaced with very little labor and cost. The various wooden parts comprising the tie are not of a special shape but can be readily cut from stock lumber. The assembling is also

so simple that the various parts can be shipped to the place where they are to be used, and there put together.

Having thus described my invention, I desire to secure the following claims by Letters Patent:—

1. In a built-up railway tie, the combination of a substantially flat wooden supporting plank, wooden rail blocks secured to the top of the plank near its ends, and wooden end blocks secured to the top of the plank between its ends and the rail blocks and serving to prevent lateral displacement of the rail blocks.

2. In a built-up railway tie, the combination of a substantially flat wooden plank, a wooden rail block secured to the top of the plank near each end thereof and serving to receive the rails to be supported, clamping members engaging at the top of the rail blocks, clamping members engaging the underside of the plank, bolts connecting between the ends of the clamping members, said clamping members and bolts serving to secure the rail blocks to the plank, and a wooden end plate secured at each end of the plank and engaging the adjacent rail block to prevent lateral displacement of said block.

3. In a built-up railway tie, the combination of a wooden plank, a rail block on top and at each end of said plank for receiving a rail to be supported, clamping members engaging the top of the rail blocks and the rail flanges, clamping members at each rail block engaging at the underside of the plank, and bolts connecting said rail clamping members and said lower clamping members, said bolts and clamping members cooperating to clamp the rails to the rail blocks and to secure said rail blocks to the plank.

4. In a built-up railway tie, the combination of a substantially flat wooden plank, a rail block on top and at each end of said plank for receiving a rail to be supported, clamping members engaging the top of the

rail blocks and the rail flanges, clamping members at each rail block, engaging at the underside of the plank, bolts connecting said rail clamping members and said lower clamping members, said bolts and clamping members cooperating to clamp the rails to the rail blocks and to secure said rail blocks to the plank, and wooden end plates secured to the top of the plank and abutting against the end of the rail blocks to prevent lateral displacement of said rail blocks.

5. In a built-up railway tie, the combination of a substantially flat wooden plank, a wooden rail block secured to the top of the plank near each end thereof and serving to receive the rails to be supported, clamping members engaging at the top of the rail blocks, clamping members engaging the underside of the planks, bolts connecting between the ends of the clamping members, said clamping members and bolts serving to secure the rail blocks to the plank, and abutment members secured at the ends of the plank for preventing lateral displacement of the rail blocks.

6. A railway tie, consisting of a wooden supporting plank, a rail block near each end of said plank for supporting a rail, clamping members for engaging the flanges of said rail and the top of said block, means for securing said block to said plank, and an abutment member rigidly secured between each block and the corresponding end of said plank, said abutment member being in contact with said block, the bottom of each block and the surface of the plank between said blocks being in the same horizontal plane.

In witness whereof, I hereunto subscribe my name, this 7th day of January, A. D. 1909.

HENRY L. HOLLIS.

Witnesses:

CHARLES J. SCHMIDT,
GEORGE E. HIGHAM.