

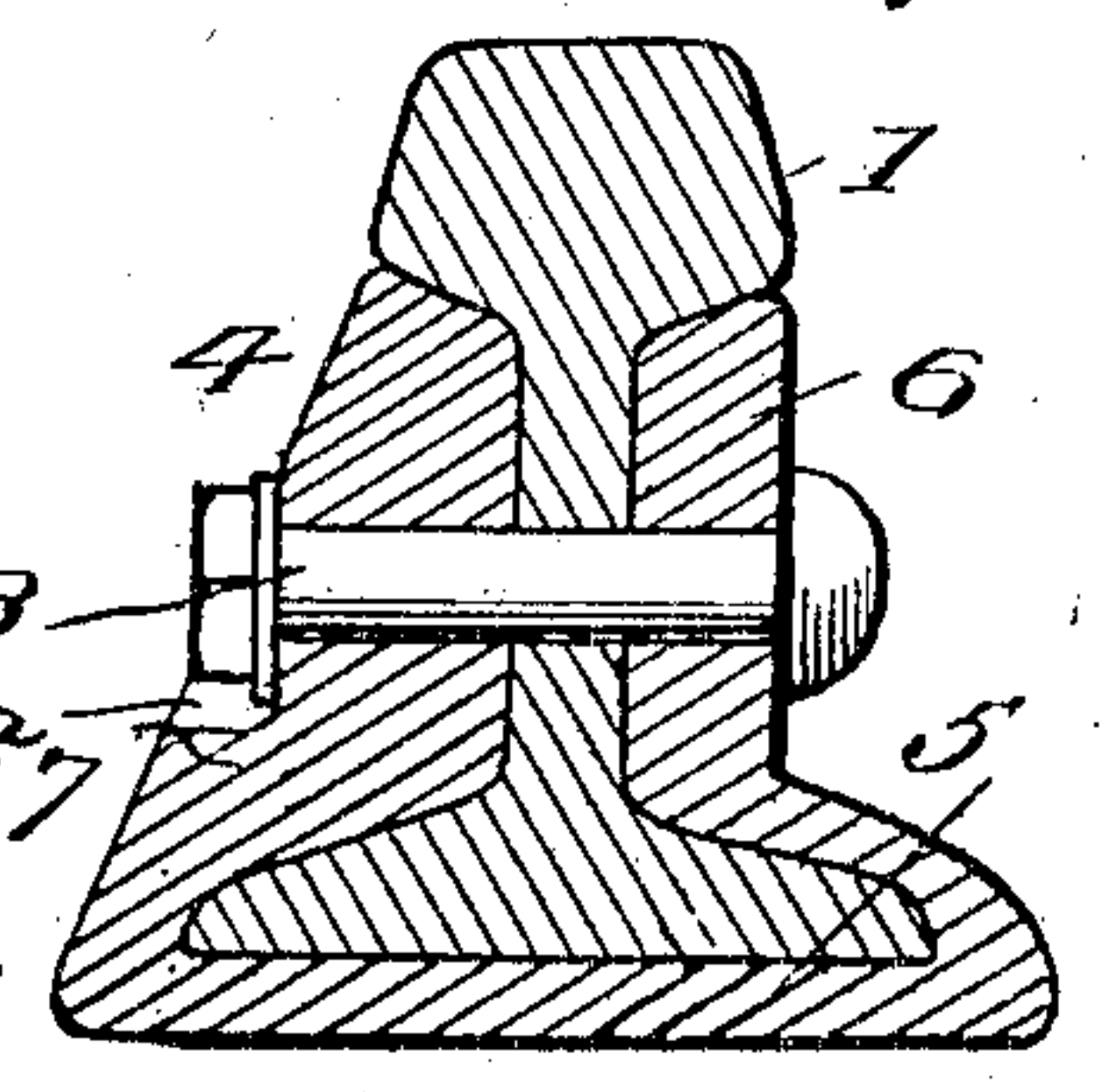
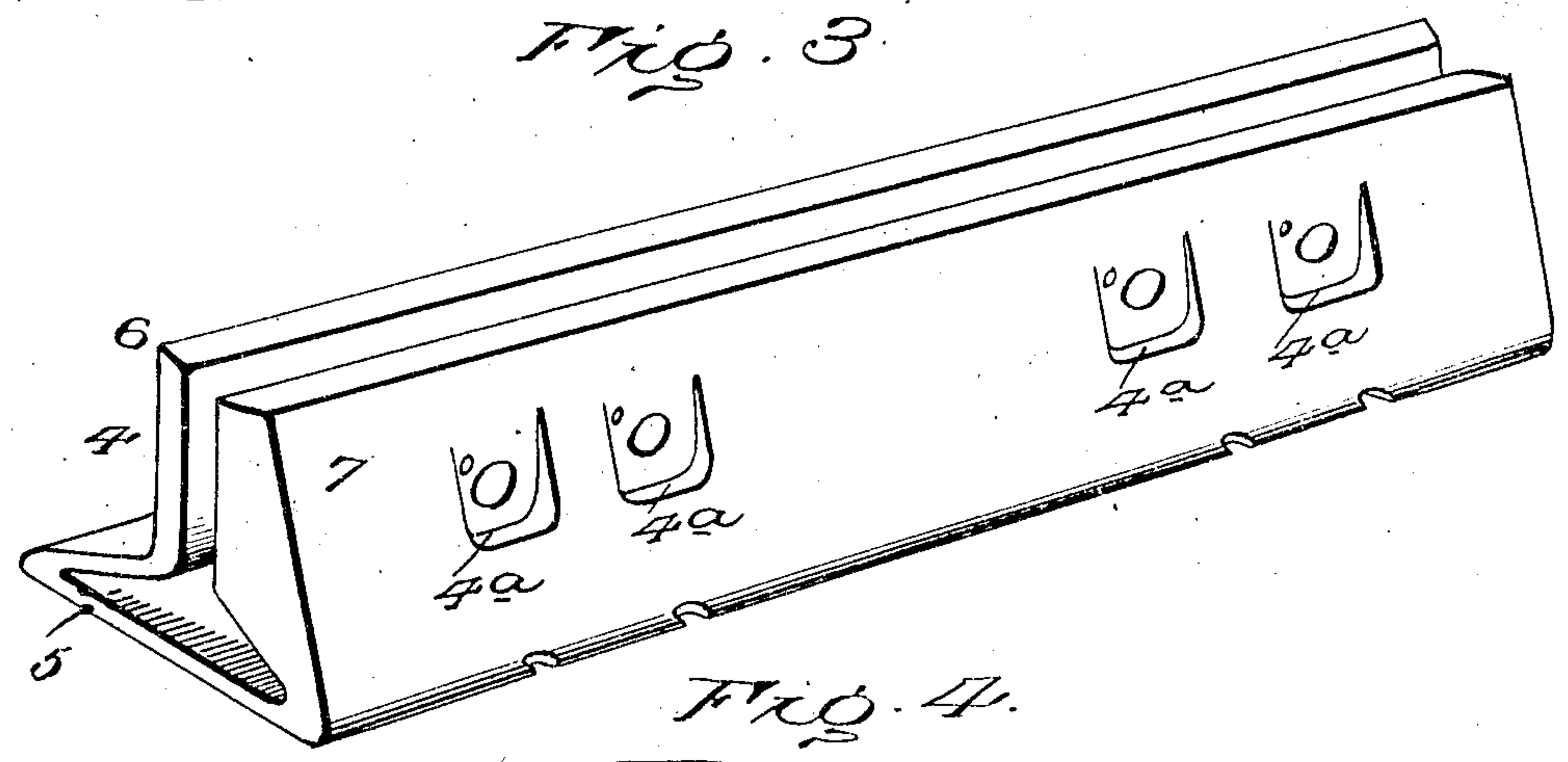
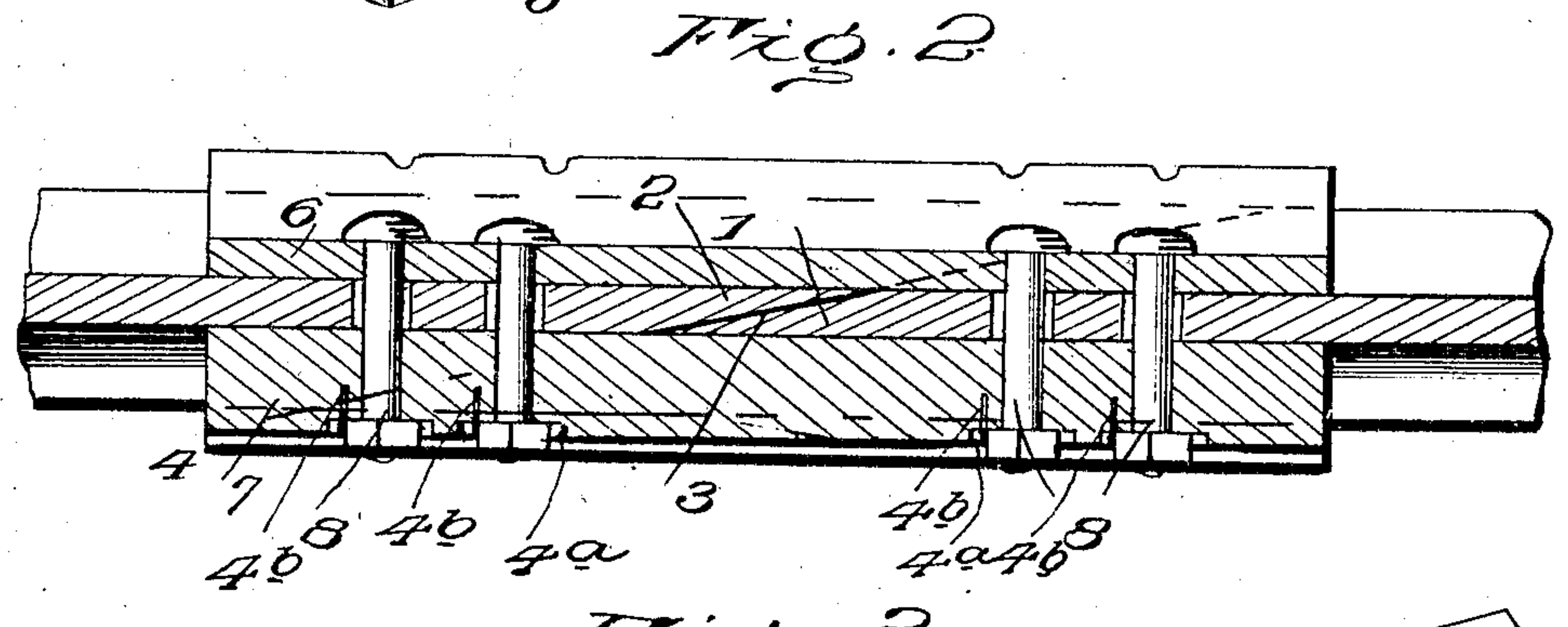
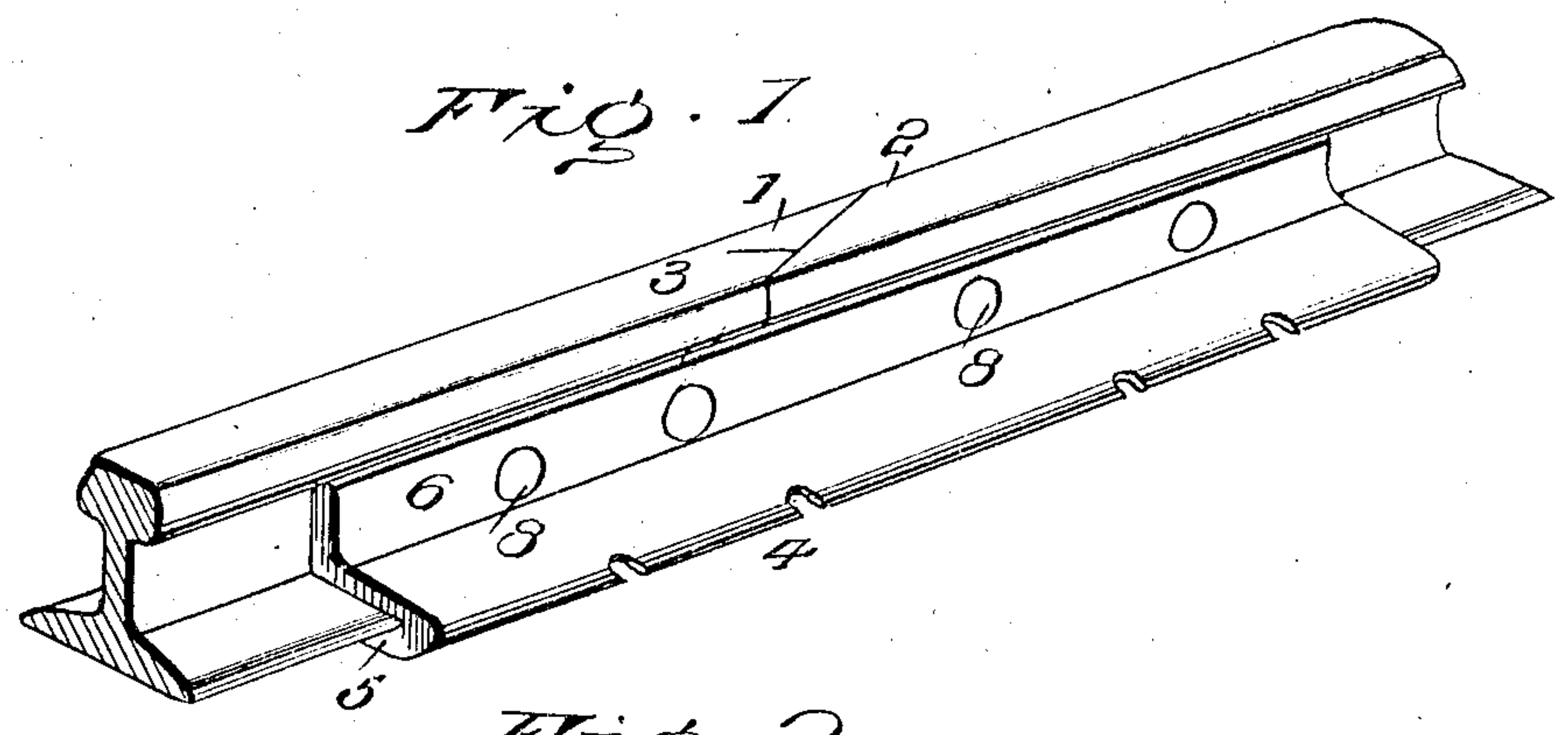
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PATENTED APR. 9, 1907.

J. H. MARTIN.

RAIL JOINT.

APPLICATION FILED JAN. 9, 1907.



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UNITED STATES PATENT OFFICE.

JAMES H. MARTIN, OF FALUN, KANSAS.

RAIL-JOINT.

No. 849,408.

Specification of Letters Patent.

Patented April 9, 1907.

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To all whom it may concern:

Be it known that I, JAMES H. MARTIN, a citizen of the United States, residing at Falun, in the county of Saline and State of Kansas, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

The object of my invention is to provide a very simple, inexpensive, and efficient form of rail-joint which may be readily applied to the rails that have already been formed without the necessity of remolding the rails.

The invention consists in certain constructions and arrangements of the parts herein after fully described and claimed.

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 illustrating the application of my improved rail-joint. Fig. 2 is a horizontal sectional view thereof. Fig. 3 is a detail view of the chair, and Fig. 4 is a transverse sectional view.

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.

Referring to the drawings, the numerals 1 and 2 designate the meeting ends of two rails, each of which is sawed along a straight diagonal line to form the straight scarf-joint or edge 3, which extends entirely through the tread portion and web and base of the rail along the same plane, so that the said edge or joint may be formed by merely sawing a rail that has already been formed and without the necessity of remolding the rail.

4 designates my improved chair, which is constructed of one integral formation, with a base 5 extending underneath the base of the two adjoining rails and with an inner member 6 and an outer member 7. The inner member 6 extends over the inner base-flange of the rails at the joint thereof and tightly hugs the adjacent side wall of the web and extends up under the head of the rail and is of such thickness that its outermost side extends flush with the side edge of the rail at the head thereof, as shown. The outer member 7 also extends over the opposite base-flange and closely hugs the outer wall of the web and the lower wall of the head, and it is to be particularly noted that the outer mem-

ber 7 is comparatively thick with relation to the inner member 6 and has its outermost wall extending solidly in a diagonal plane from the outer lower corner of the head of the rail to the base 5 of the chair. Thus the chair is formed with one comparatively thick member at the outer side of the rails and a thinner member at the inner side thereof, the strain being greater at the outside than at the inner side.

8 designates bolts which extend entirely through the fish-plates constituted by the members 6 and 7 of the chair and also through the webs of the rails, said webs being slotted, as indicated in Fig. 2, to allow for expansion and contraction. By the construction of the scarf-joint as herein described not only may the meeting ends of the rails be sawed into the desired shape, but the wheels of the cars will in traveling over the joint always tread upon a solid portion of the rails, and thereby avoid the wear and jar that are incident to the joints of rails in which the meeting edges are at right angles to the length of the rails.

As shown best in Figs. 3 and 4, the chair 4 is provided with angular recesses 4^a to receive the nuts of the bolts 8, so that the same may lie square on the bolts, as shown. Within each one of these recesses is an opening which extends into the chair and is adapted to receive a locking-pin 4^b, so as to prevent the nut from turning after it has once been screwed up.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided a very simple, durable, and inexpensive form of rail-joint of the character described.

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

1. The combination with the meeting ends of rails that are formed with a diagonal edge or scarf-joint extending in one plane through the head, web and base of the rail, of a chair of one integral construction provided with a base portion extending underneath the base of the rails at the joint thereof and with two members 6 and 7, the inner member 6 lying at the inner side of the rails, extending over the base-flange of the rails and snugly engaging the web thereof and the under side of the adjacent portion of the head of the rails, such inner member being of a thickness that its exposed wall lies flush with the side edge of the head and extends downwardly in a verti-

cal plane therefrom, and the outer member of
said chair extending over the opposite base-
flange of the rails and snugly engaging the
adjacent wall of the web and the underneath
5 portion of the head, said last-named member
of the chair being comparatively thick with
respect to the other member and having its
exposed wall extending in a diagonal plane
from the outer side edge of the head of the
10 rail down to the base of the chair, and bolts
extending through the two members of the
chair and through the webs of the rails.

2. The combination with the meeting ends
of rails the webs of which are provided with
15 slots, of a chair adapted to extend under-
neath the base of the rails at the joint thereof
and formed with two members adapted to

extend up alongside of the rails, one member
of said chair being provided with angular re-
cesses 4^a and with openings in said recesses, 20
both members of the chair being formed with
bolt-holes and bolts extending through said
bolt-holes and through the slots of the webs
and provided with nuts fitting within the an-
gular recesses of the chair, and locking-pins 25
inserted in the said openings and adapted to
lie against the nuts, as and for the purpose
set forth.

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

JAMES H. MARTIN. [L. s.]

Witnesses:

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