

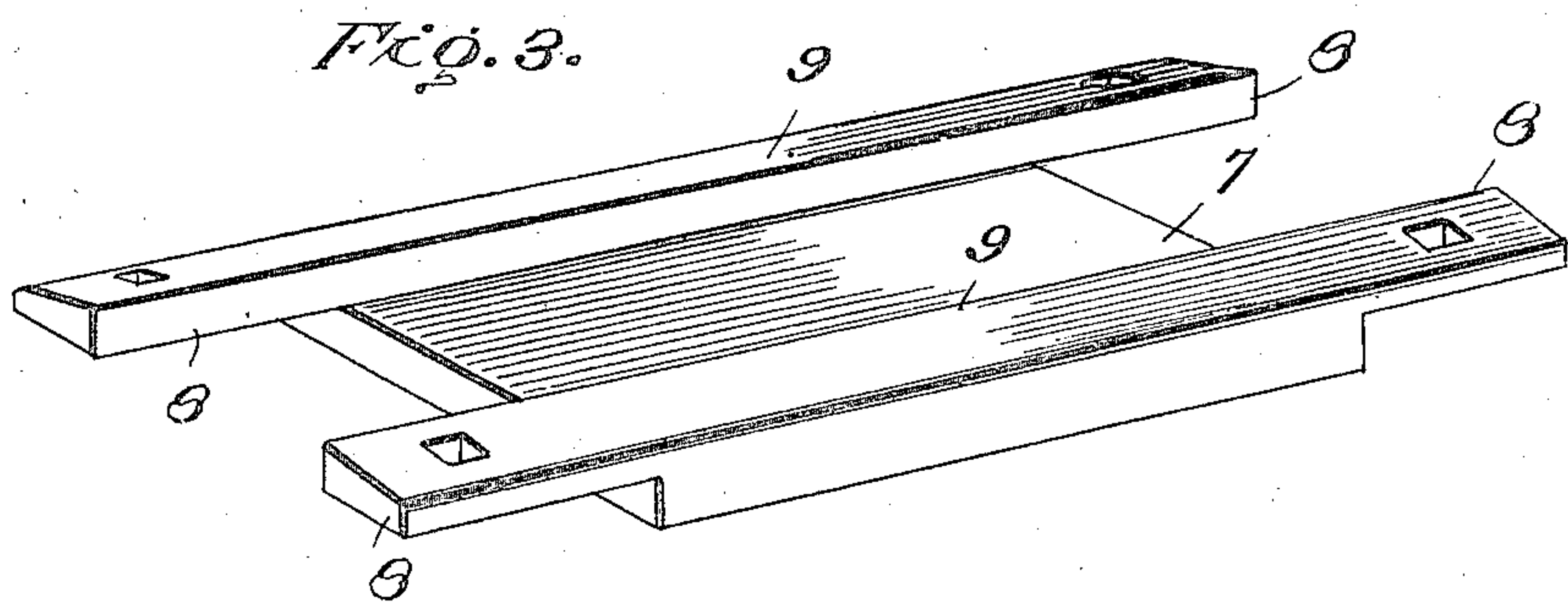
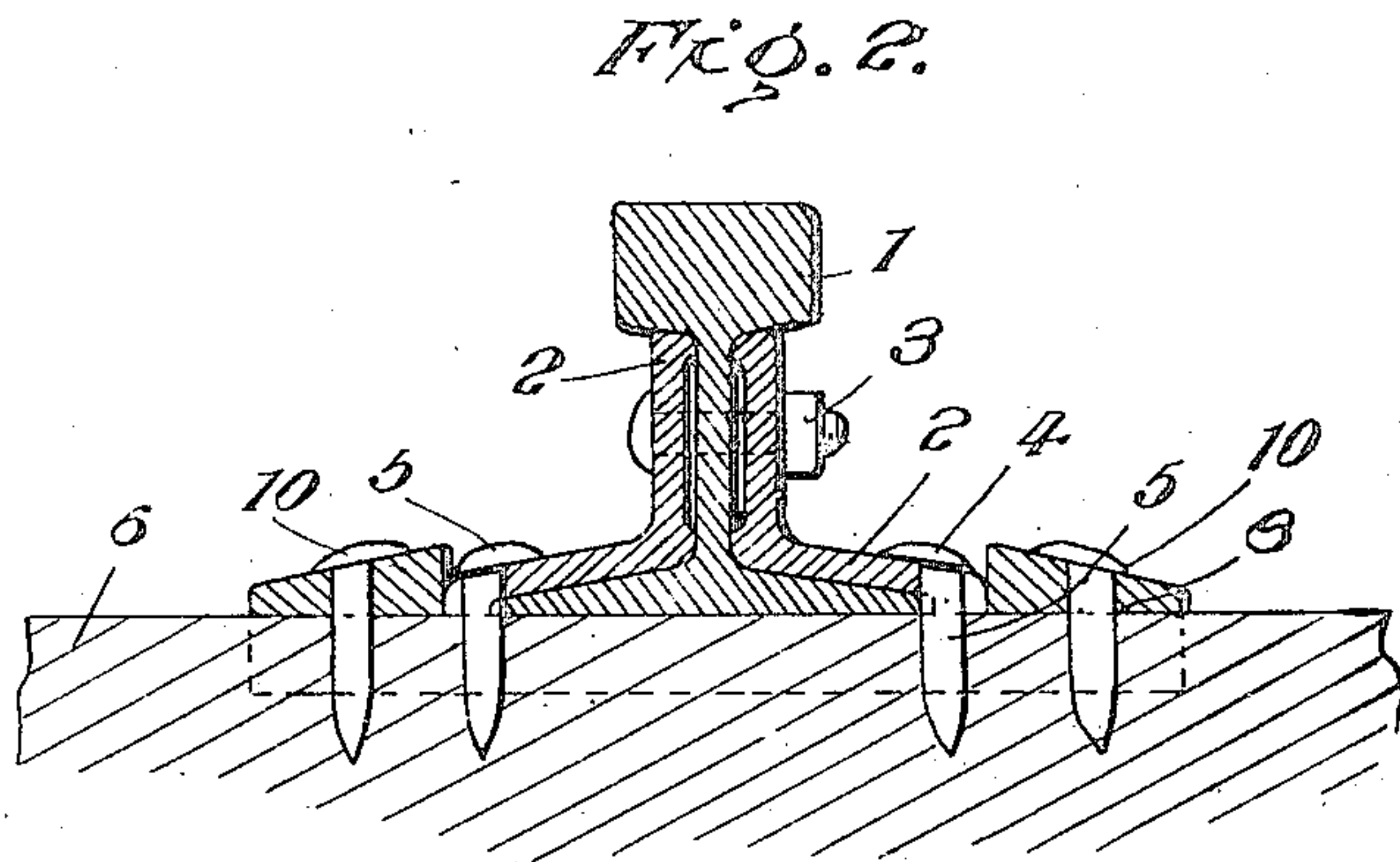
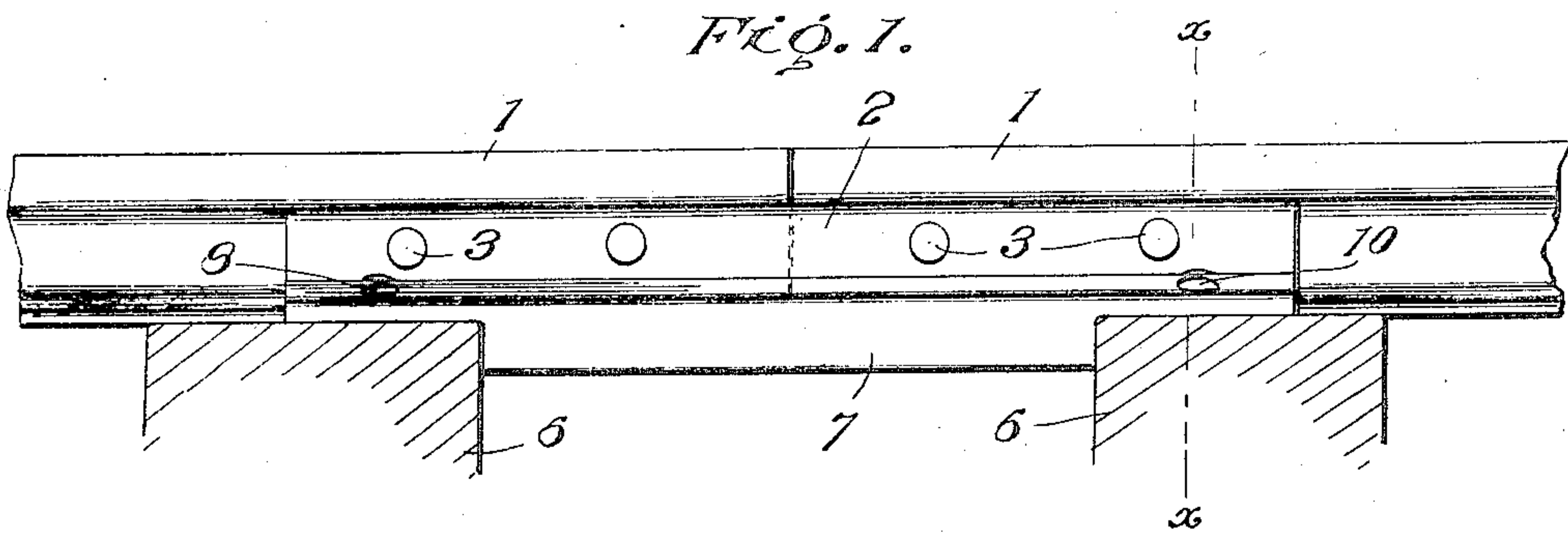
No. 875,229.

PATENTED DEC. 31, 1907.

J. O. WRENCH.

RAIL JOINT.

APPLICATION FILED MAR. 23, 1907.



Witnesses

Wm. H. Woodson

James O. Wrench, ^{Inventor}

By

Pharmacy

Attorneys

UNITED STATES PATENT OFFICE.

JAMES O. WRENCH, OF BELOIT, KANSAS.

RAIL-JOINT.

No. 875,229.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed March 23, 1907. Serial No. 364,006.

To all whom it may concern:

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

The present invention relates to certain new and useful improvements in rail joints, and has for its object to provide a novel means for locking the abutting ends of the rails against both vertical and lateral displacement.

Broadly speaking the invention is in the nature of a peculiarly designed chair fitting under the joint and cooperating with the fish plates to accomplish the desired result.

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

Figure 1 is a side elevation of a rail joint embodying the present invention. Fig. 2 is a transverse sectional view on the line $x-x$ of Fig. 1. Fig. 3 is a detail perspective view of the chair.

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.

The numerals 1 designate the abutting rail ends which are connected in the usual manner by means of fish plates 2 applied to opposite sides thereof and secured in position by means of the bolts or fastening members 3. These fish plates 2 are formed with the horizontally disposed wings 4 which extend over the base of the rails and project slightly beyond the edges thereof, the said projecting portions of the wings 4 being notched toward opposite ends thereof to receive the fastening members or spikes 5 which are driven into the ties 6 and operate in the usual manner to secure the rails thereto.

Fitting under the rail joint and operating to support the same against sagging or vertical displacement is a base plate 7 which is suspended between two adjacent ties 6 by means of the arms 8. Projecting upwardly from opposite sides of the base plate 7 are the longitudinally disposed ribs 9 which

are designed to engage with the outer edges of the horizontal wings 4 and thereby cooperate with the fish plates to prevent any lateral displacement of the rail ends. The spaced arms 8 projecting from each end of the base plate 7 form continuations of the ribs 9 and are rigidly connected to the ties 6. For this purpose the said arms are shown as provided with openings through which spikes 10 are driven into the ties. With this construction it will be readily apparent that the rails are spiked to the tie in the usual manner and that the chair constituted by the base plate forms an additional safe guard to prevent displacement of the rails or sagging of the joint. It might also be mentioned that where this chair is employed the weight imposed upon the joint is equally distributed between a pair of adjacent ties 6.

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

In a rail joint, the combination of abutting rail ends meeting between a pair of ties, a base plate arranged between the ties and fitting against the lower side of the joint, longitudinal ribs projecting upwardly from opposite sides of the base plate and spaced from the base of the rail ends, longitudinal arms projecting from opposite ends of the base and forming continuations of the before mentioned ribs, the said arms resting upon the respective ties and having openings formed therein, fish plates applied to opposite sides of the rail ends and formed with horizontal wings projecting laterally beyond the base of the rails and engaging the before mentioned ribs upon the base plate, the projecting edges of the wings being provided toward opposite ends thereof and over the ties with spike receiving notches having the mouths thereof closed by the before mentioned arms projecting from the base plate, fastening members passing through the openings in the arms to secure the base plate to the ties, and fastening members engaging the notches in the fish plates to secure the rail ends and fish plates in position.

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

JAMES O. WRENCH.

Witnesses:

IRA N. TICE,
F. B. McMILLAN.