

No. 742,739.

PATENTED OCT. 27, 1903.

W. H. REHMERT.
RAIL JOINT.

APPLICATION FILED JAN. 8, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

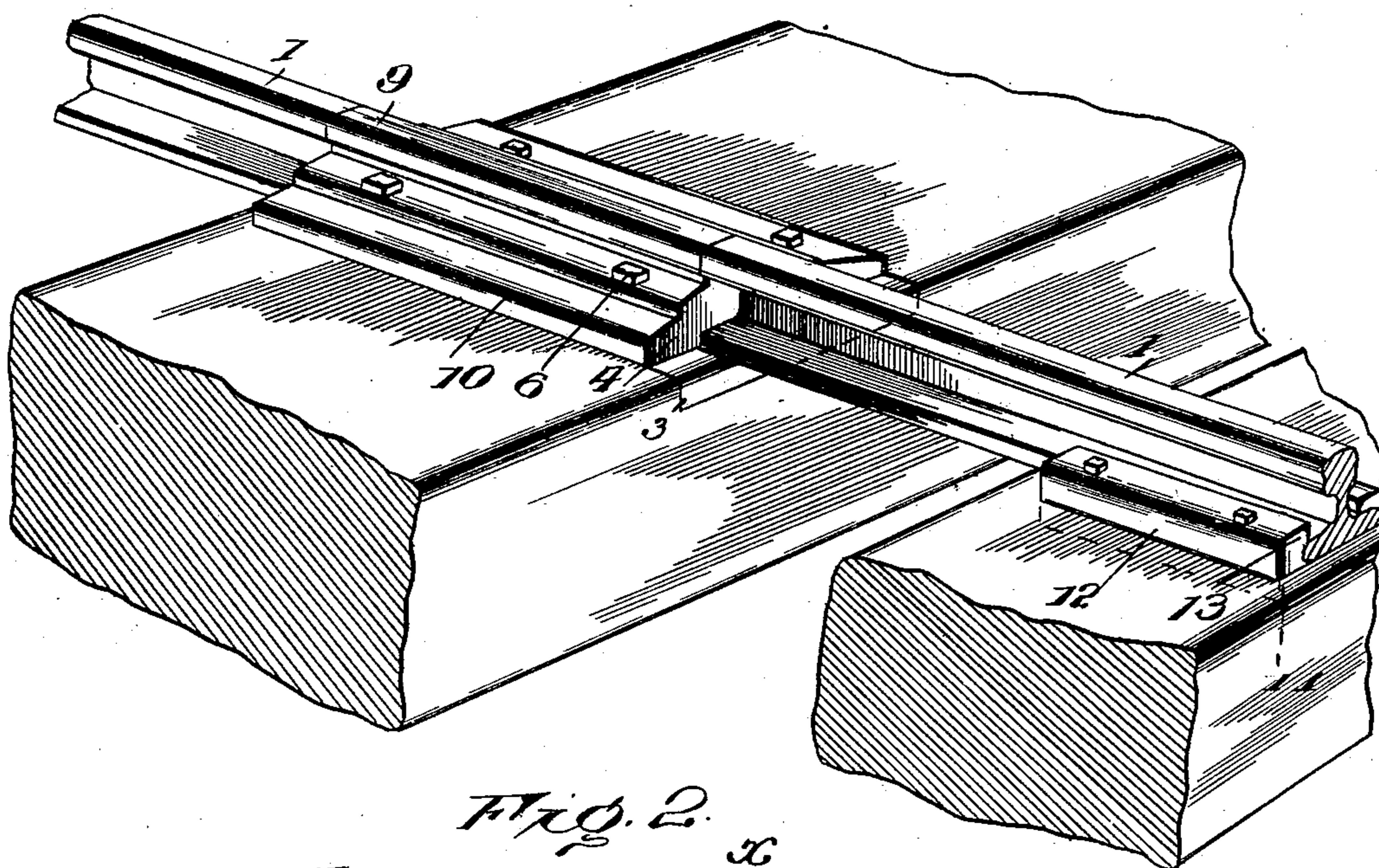


Fig. 2.

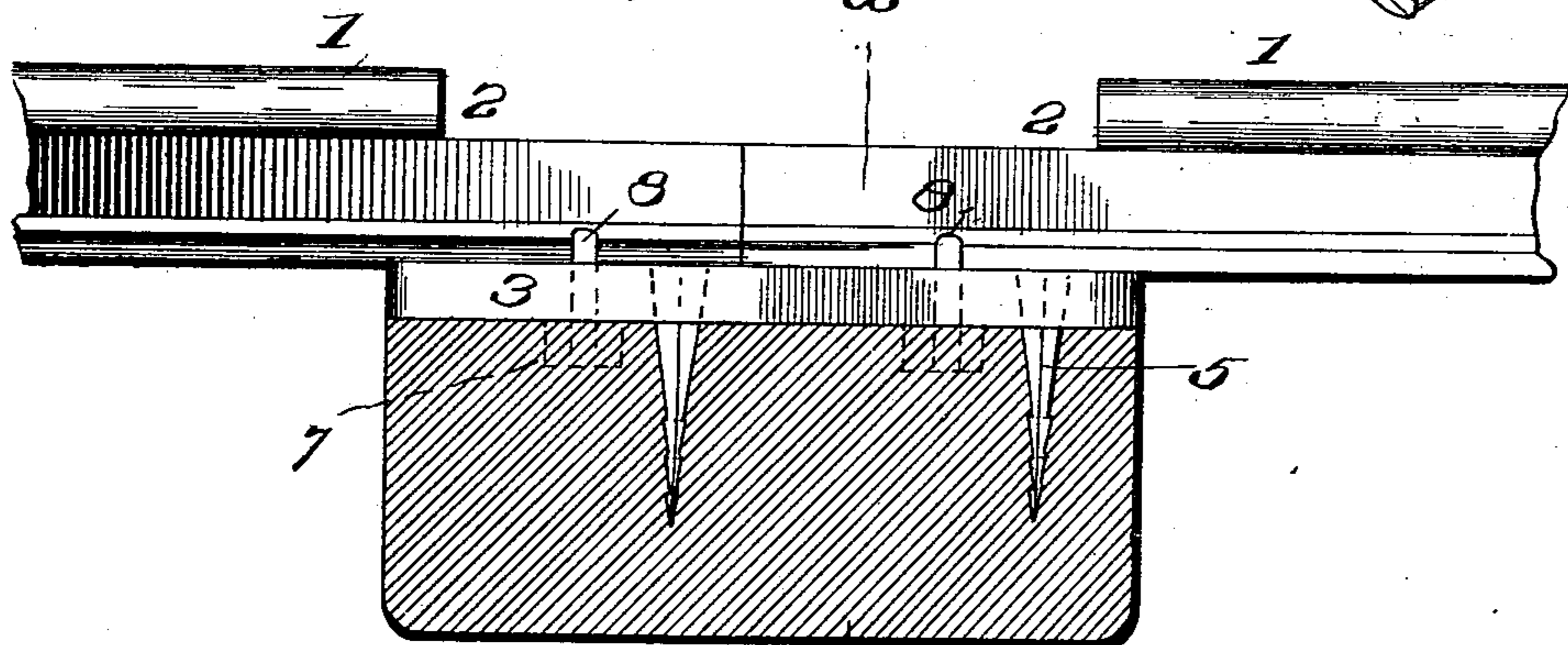
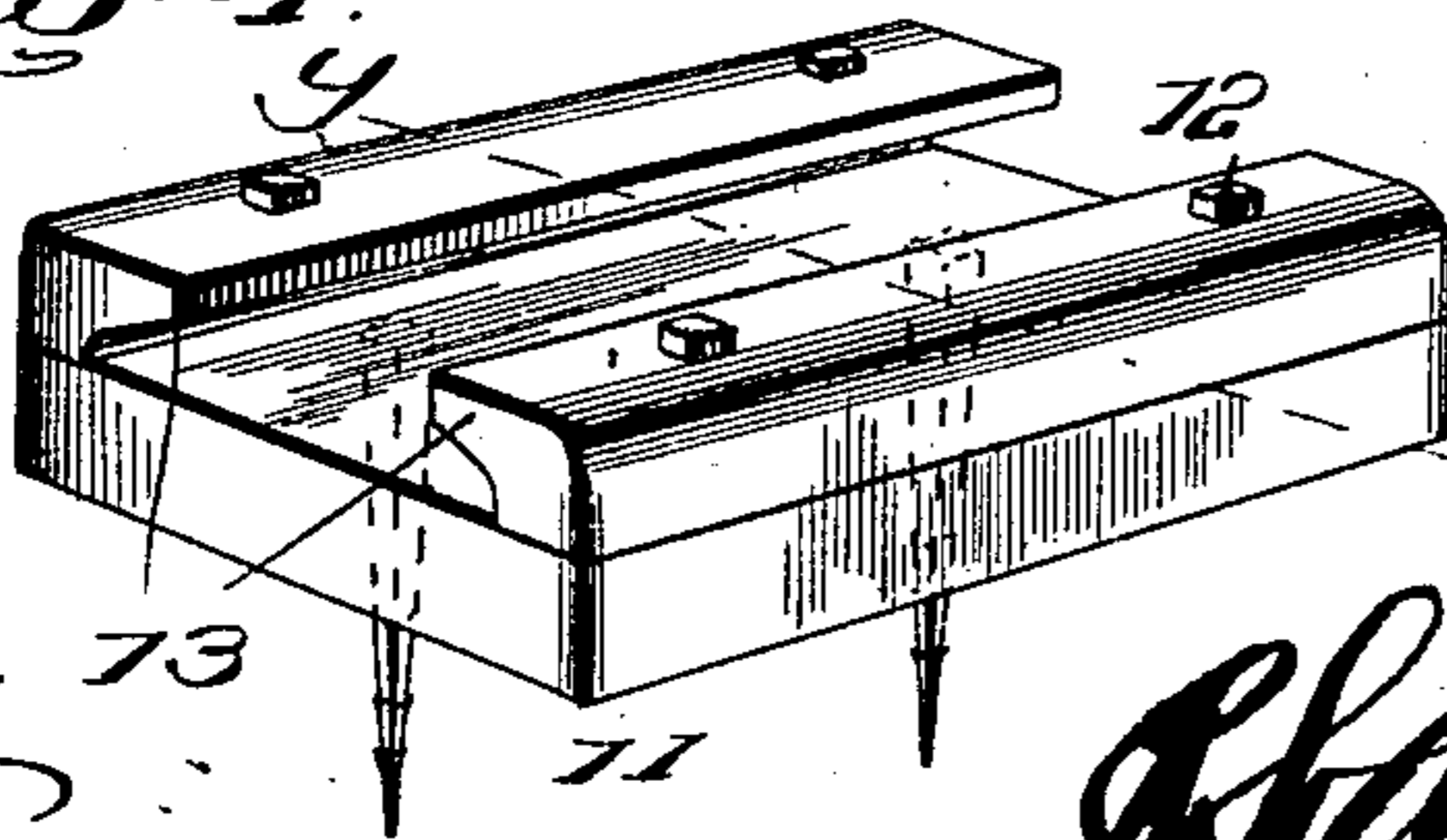


Fig. 4.



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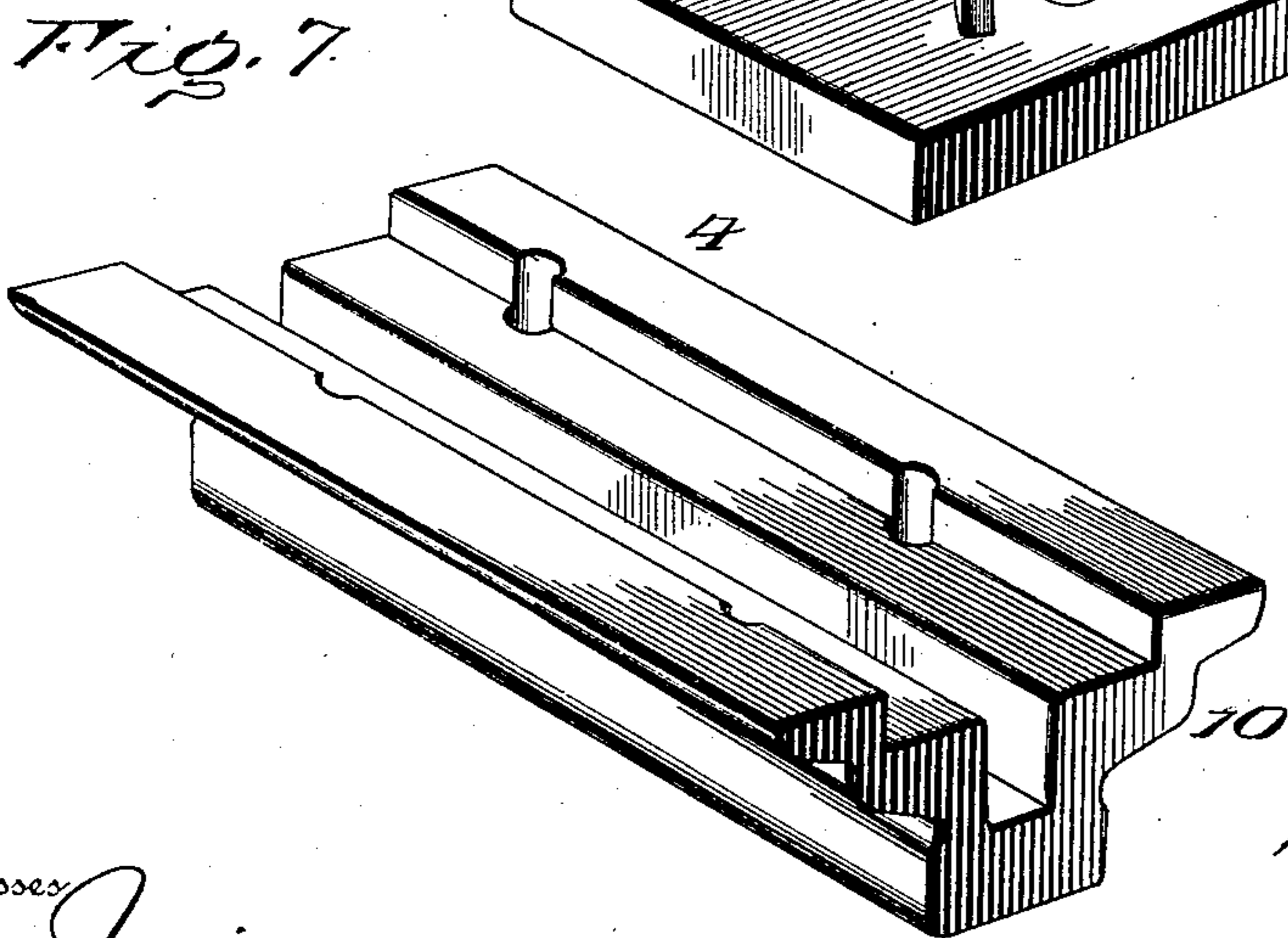
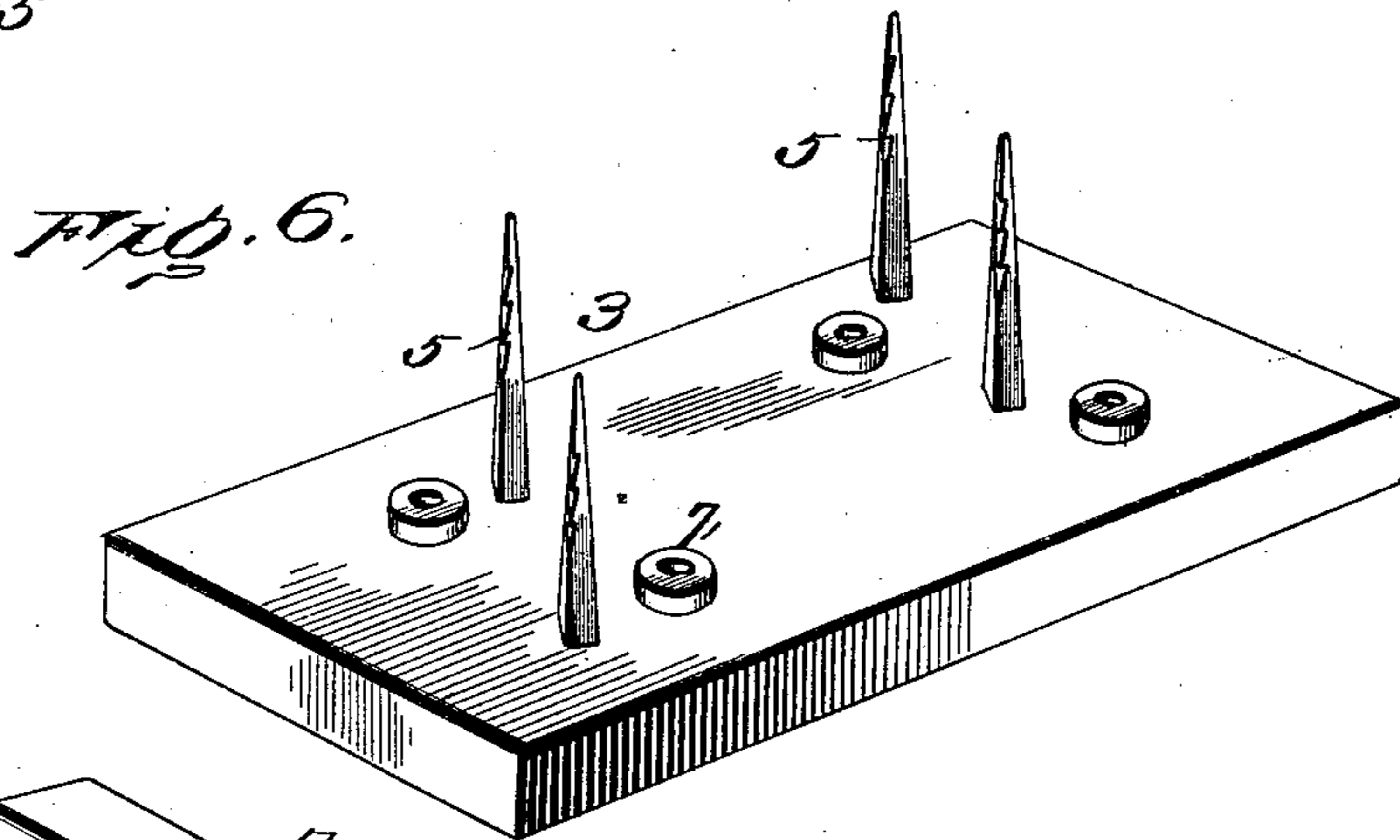
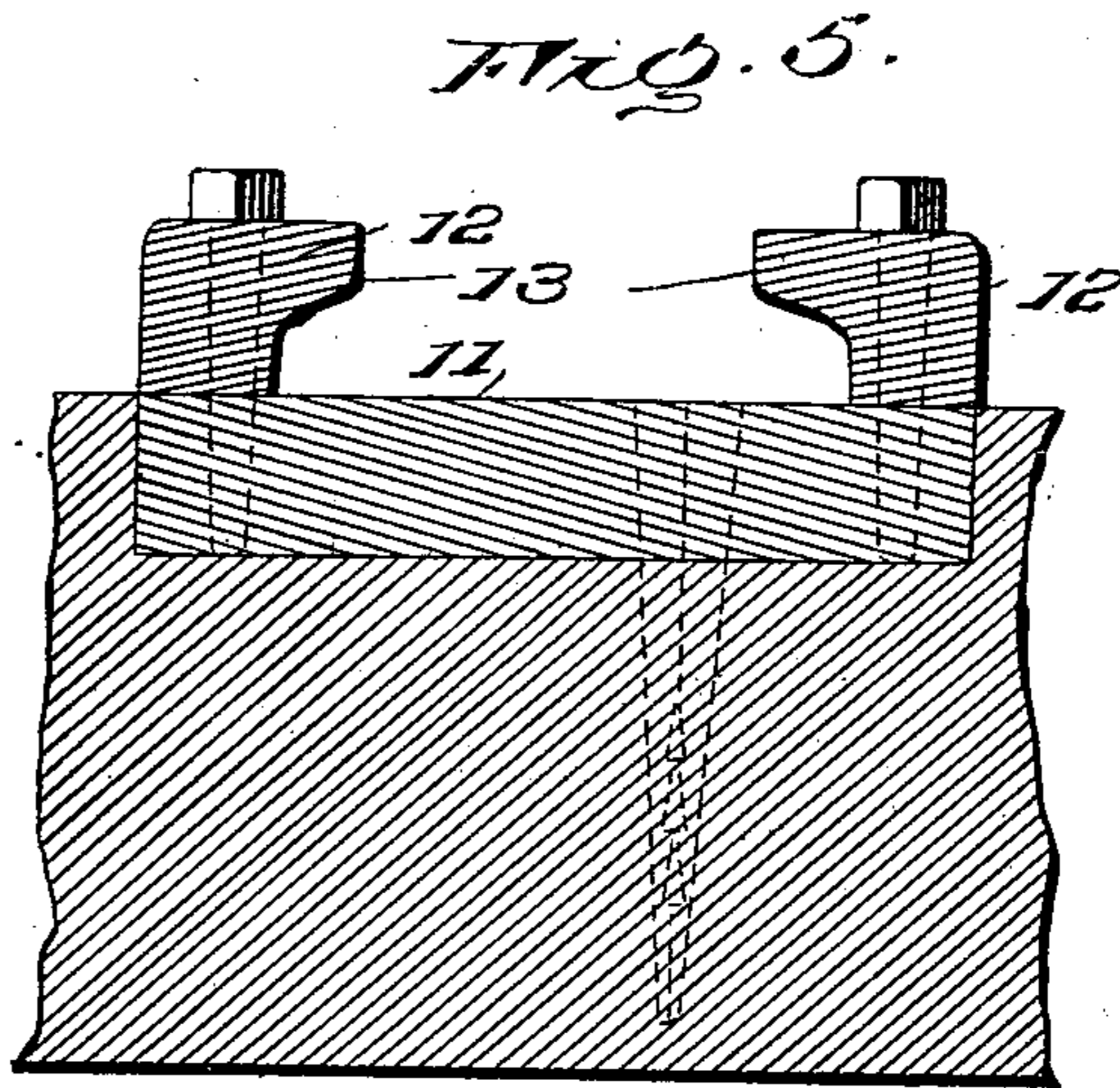
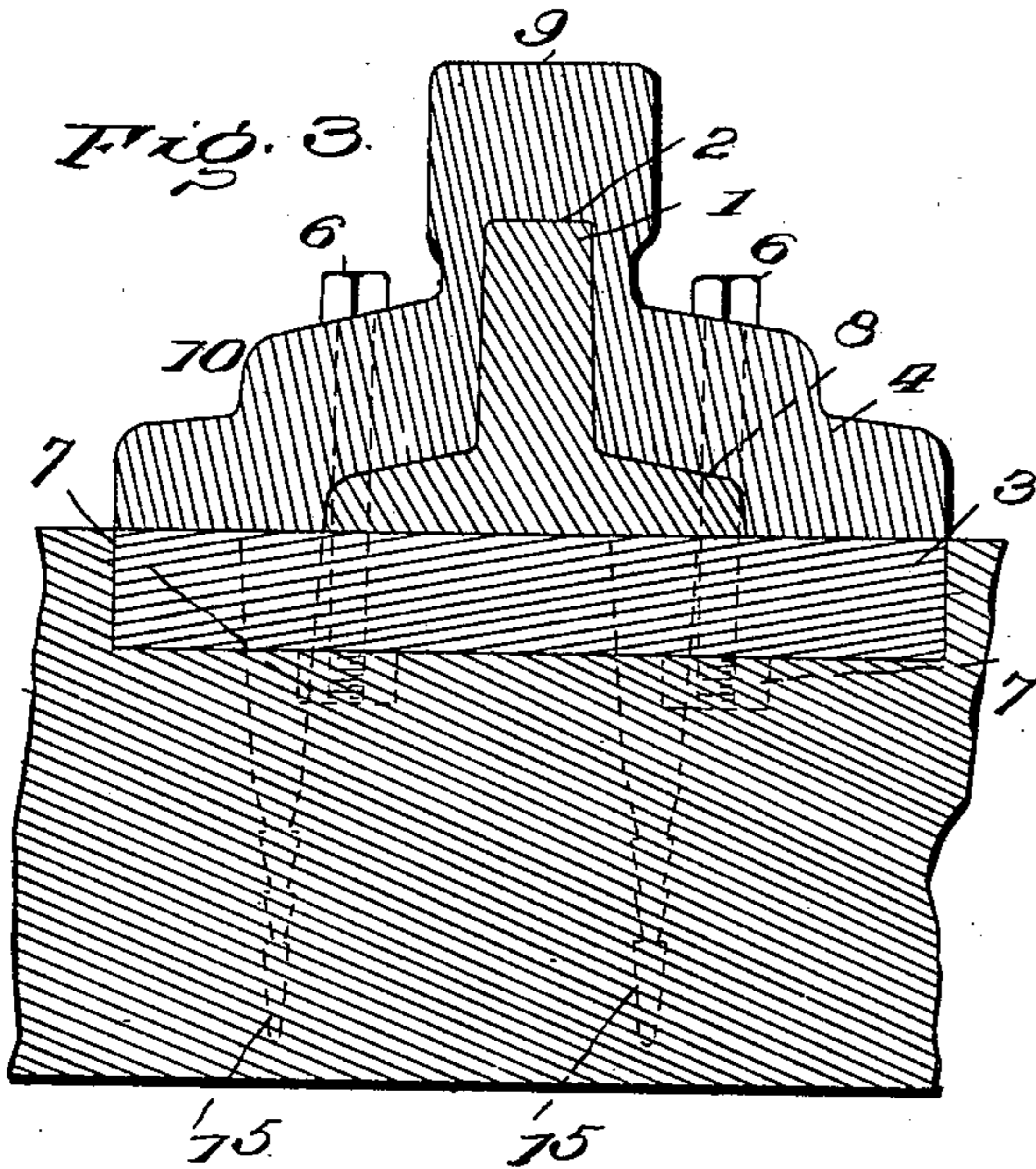
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UNITED STATES PATENT OFFICE.

WILLIAM H. REHMERT, OF ASHERVILLE, KANSAS.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 742,739, dated October 27, 1903.

Application filed January 8, 1903. Serial No. 138,307. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. REHMERT, a citizen of the United States, residing at Asherville, 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.

This invention aims to provide a secure and rigid joint for the meeting ends of railway-rails which will resist any tendency to play of said ends either vertically or laterally and result in a practically continuous rail, thereby obviating the jar commonly experienced when the wheels of a car pass over the joints of the rails.

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 drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a rail-joint embodying the invention. Fig. 2 is a side elevation, the joint-cap being omitted. Fig. 3 is a cross-section on the line X X of Fig. 2. Fig. 4 is a detail perspective view of a rail-chair. Fig. 5 is a cross-section on the line Y Y of Fig. 4. Fig. 6 is a perspective view of the joint-plate inverted. Fig. 7 is a perspective view of the joint-cap inverted.

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 meeting ends of the rails comprising the joint are indicated at 1, and the head portion of each is cut away a short distance from the extremity, as shown at 2, leaving the web and foot intact. The joint further comprises the plate 3 and cap 4, the plate 3 being embedded or let into the tie and secured thereto by a series of spikes 5, driven into the tie through openings in the said plate. The spike-openings of the joint-plate 3 and the upper portion of the spikes 5 are of corresponding taper to admit of a close fit of the spikes in the openings when driven with their upper

ends about flush with the top side of said plate, this being essential to admit of the end portions of the rails resting squarely upon the joint-plate. The joint-plate is of a length and width to provide a substantial bearing for the ends 1 of adjacent rails and is of a thickness to sustain the vertical and lateral strain incident to traffic.

The joint-cap 4 embraces the top and sides of the rail ends 1 opposite the cut-away portion 2 and is secured to the joint-plate 3 by fastenings 6, which may be machine screws or bolts. It is preferred to have the fastenings 6 make screw-thread connection with the joint-plate 3, and for this purpose the latter is provided upon its under side with bosses 7, internally threaded for reception of the threaded ends of the bolts or fastenings 6. The bosses 7 are let into openings formed in the tie, so as to admit of the joint-plate resting squarely upon the tie in the mortise formed therein. The bolts or fastenings 6 enter notches 8, formed in the edges of the foot or basal flanges of the rails, thereby interlocking with the latter and preventing displacement thereof. The joint-cap comprises a head portion 9 and side portions 10, the latter overlapping the foot of the rail ends and the side portions of the joint-plate. The head 9 corresponds to the cut-away portion of the rail ends 1 and constitutes, in effect, a continuation of the head of the rails and supports the car-wheels in their passage over the joint.

The parts 3 and 4 may be cast or formed in any way.

To strengthen the joint, prevent spreading of the rails, and guard against any vertical play, clamps are arranged at each side of the joint and are secured to the adjacent ties. These clamps are of like construction and each comprises a base-plate 11 and longitudinal strips 12, bolted or otherwise secured to opposite edge portions of the base-plate and having inwardly-extended lips 13 to overhang the foot of the rail and secure the same. The base-plate 11 is let into the tie so as to come about flush with the top side thereof and is spiked to the tie in about the same manner as the joint-plate 3. In each case the rails extend over the spikes and prevent vertical displacement thereof, as will be readily

comprehended. By having the longitudinal strips 12 secured to the base-plate 11 by bolts or analogous fastenings the clamps are adapted to be placed in position or removed without disturbing the joint.

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

In combination-rails having the head portions of adjacent ends cut away for a short distance, and having notches upon opposite edges of the adjacent bases thereof, a joint-cap embracing the top and sides of the rail ends opposite the cut-away head portions and having a head corresponding to and forming a continuation of the head of the rail, a joint-

plate secured beneath the rail, longitudinal clamp-strips disposed upon the edge portion of the joint-plate, fastenings passing through the joint-plate and clamp-strips and extended into the notches upon the bases of the rails, whereby longitudinal movement of the rails is prevented, and inwardly-extended lips provided upon the clamp-strips and overlapping the basal portions of the rail.

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

WILLIAM H. REHMERT. [L. S.]

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