

No. 730,928.

PATENTED JUNE 16, 1903.

J. F. KOEHLER & J. F. MILDE.
JOINING OR CONNECTING RAILROAD RAILS.
APPLICATION FILED JAN. 2, 1903.

NO MODEL.

Fig. 1.

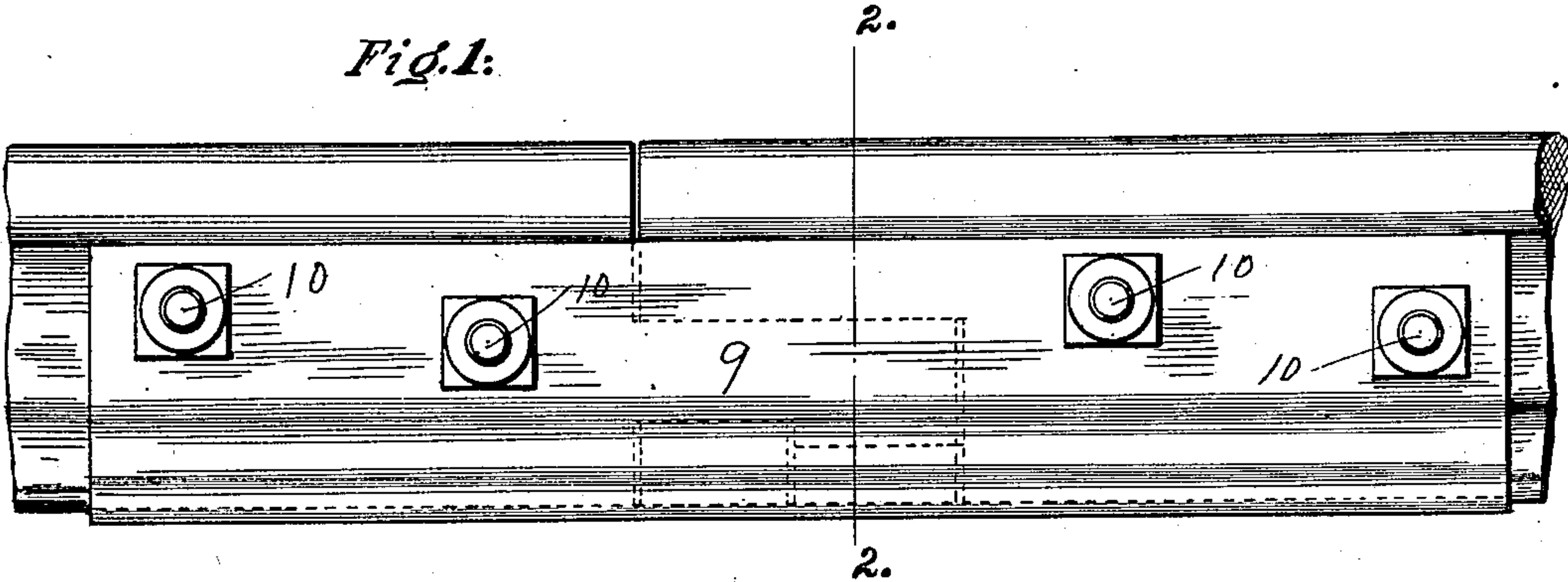


Fig. 2.

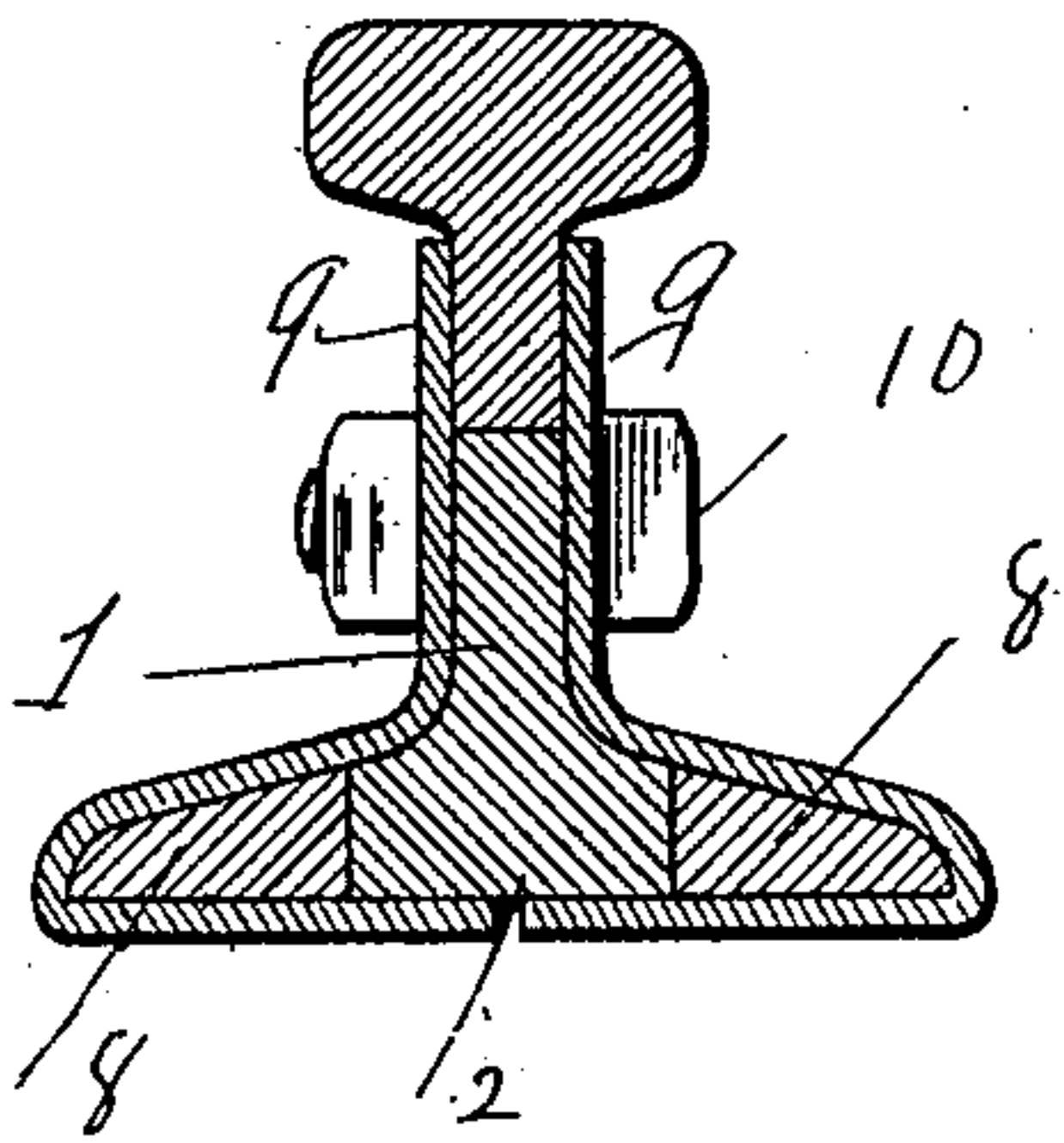


Fig. 3.

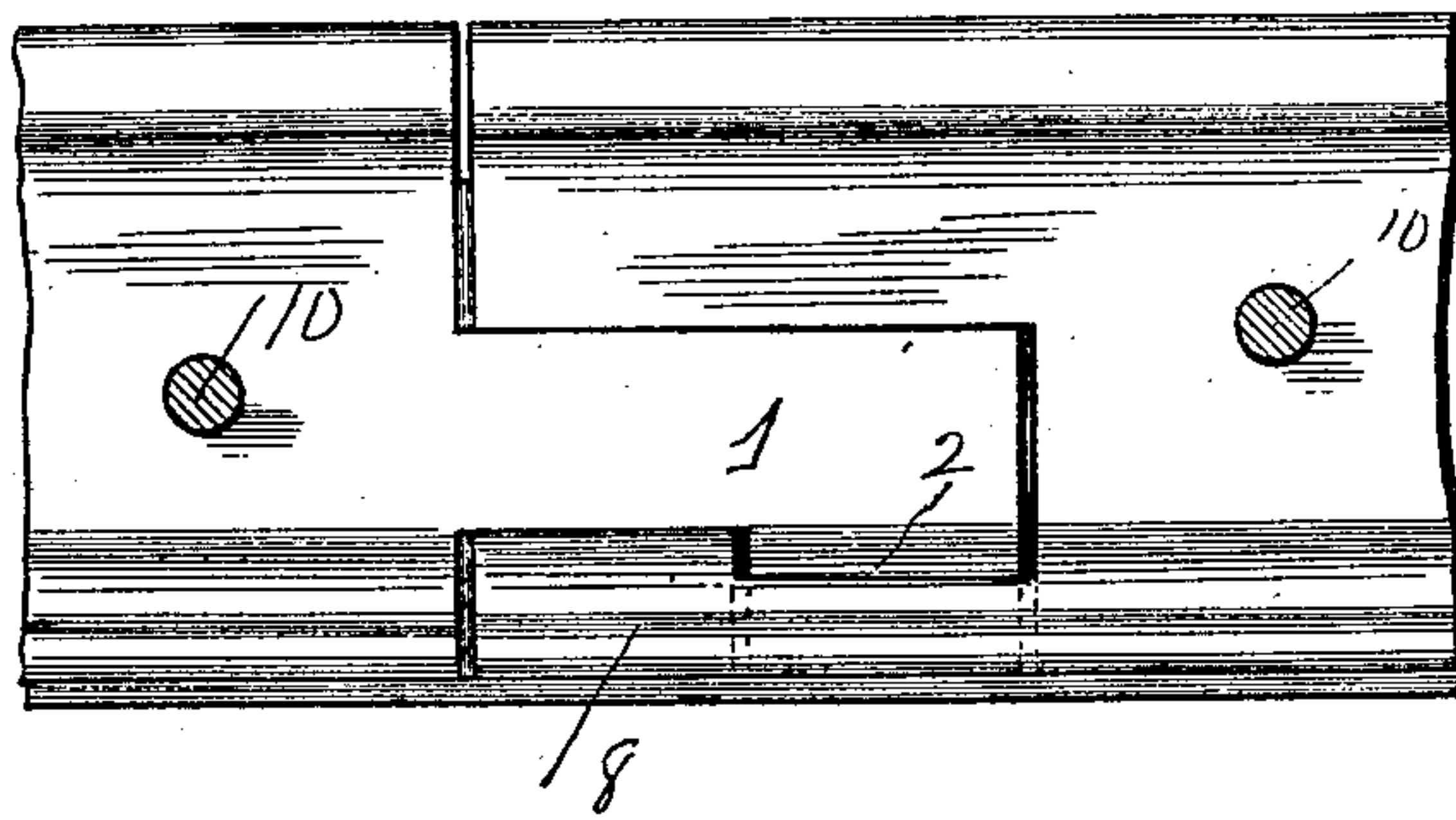


Fig. 4.

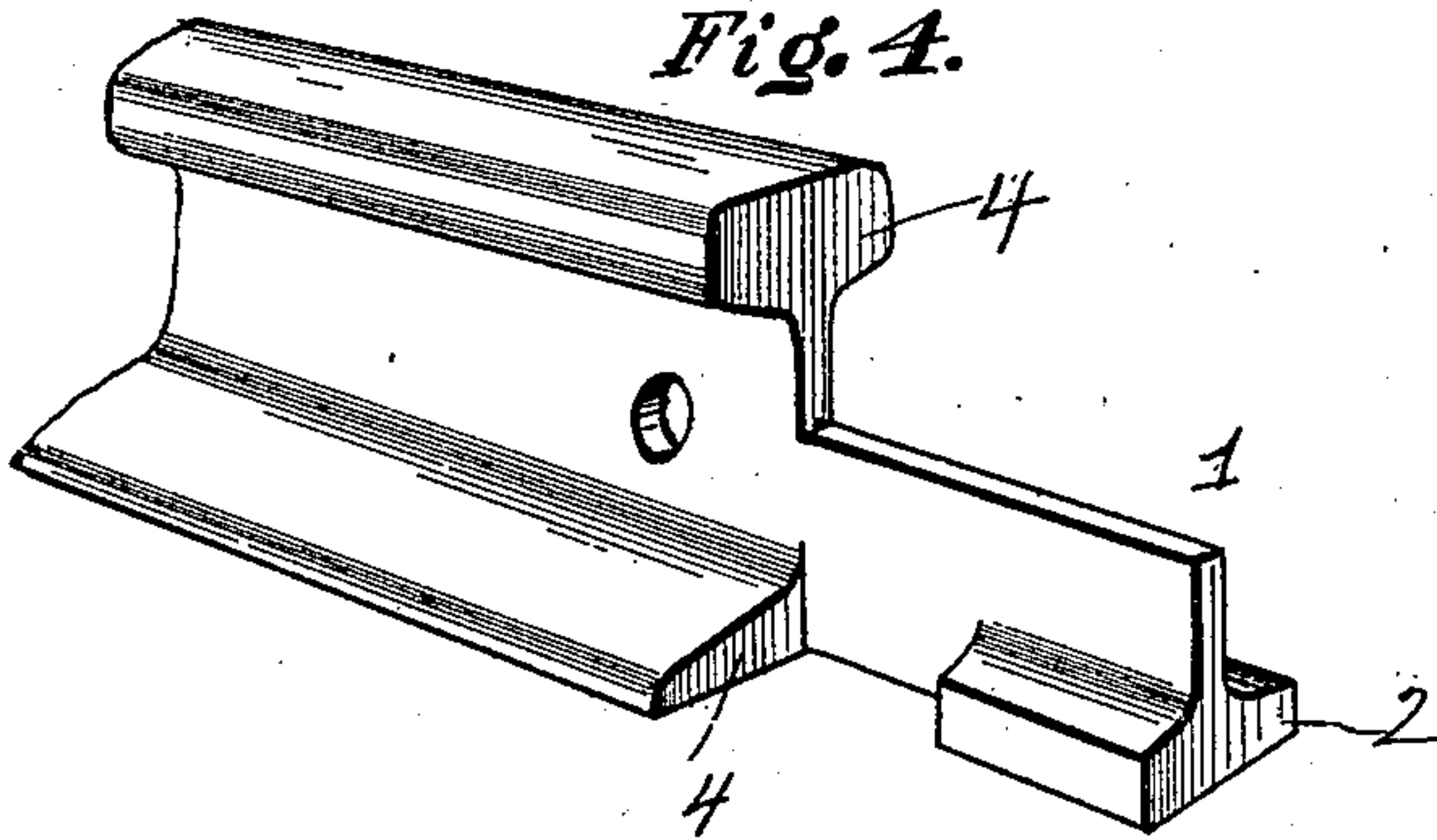
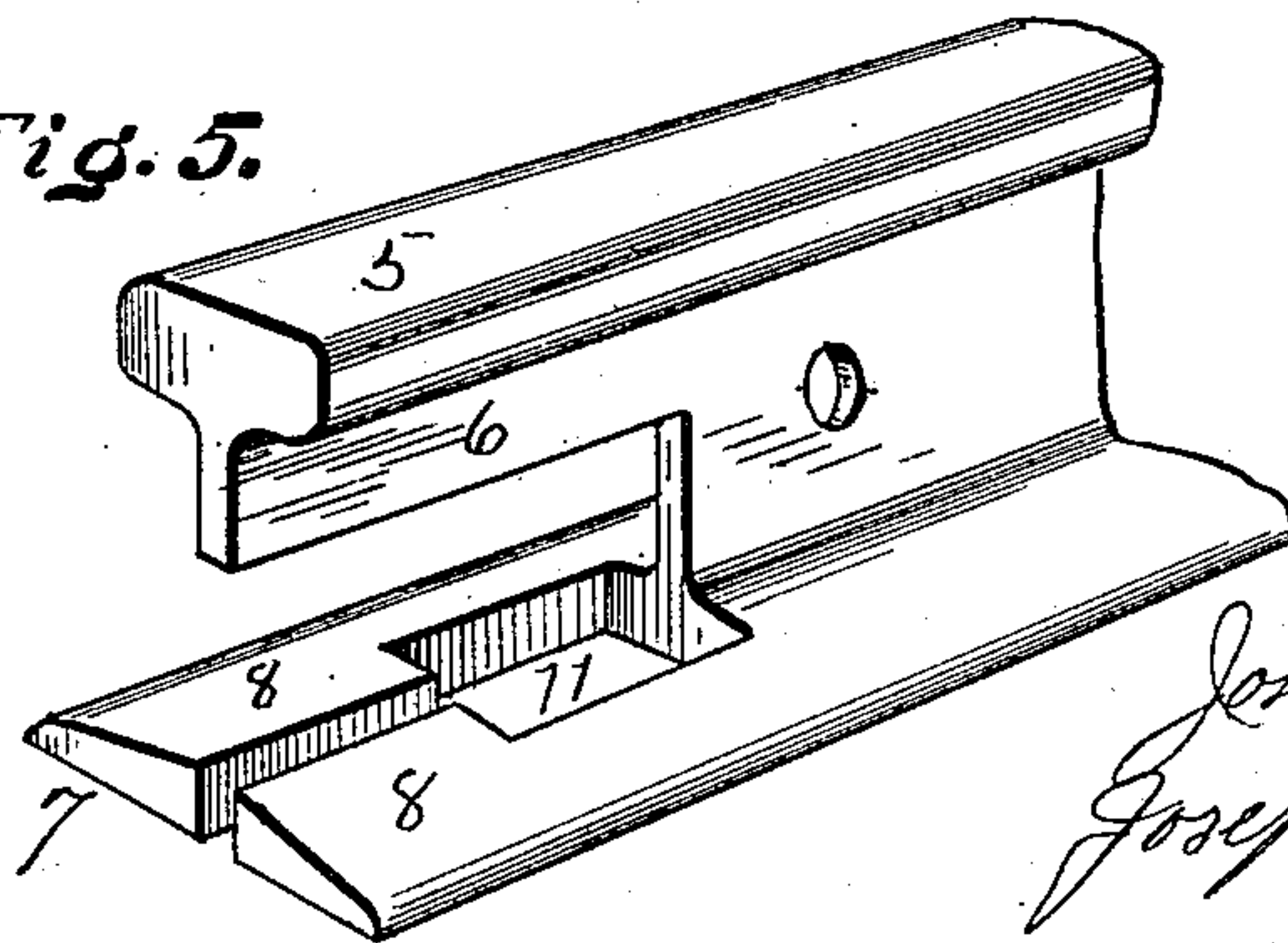


Fig. 5.



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UNITED STATES PATENT OFFICE.

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JOINING OR CONNECTING RAILROAD-RAILS.

SPECIFICATION forming part of Letters Patent No. 730,928, dated June 16, 1903.

Application filed January 2, 1903. Serial No. 137,590. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH F. KOEHLER and JOSEPH F. MILDE, citizens of the United States, residing at Jackson, in the county of Cape Girardeau and State of Missouri, have invented a new and useful Method of Joining or Connecting Railroad-Rails, of which the following is a specification.

Our invention consists of an improved method of joining or connecting railroad-rails so as to form practically a continuous rail.

Figure 1 is a side elevation of the jointed ends of two rails with fish-plate attached. Fig. 2 is a cross-section on line 2 2, Fig. 1. Fig. 3 is a broken side elevation of the abutting or jointed ends of two rails, clamp-bolts shown in section. Fig. 4 is a perspective view of the tenoned end of a rail. Fig. 5 is a perspective view of the mortised end of a rail.

The rails to which this joint applies are common T-rails. One end of each rail is supplied with a tenon and the other end with a mortise. The tenon is formed by cutting away the head or tread and part of the flange of a rail, leaving a perpendicular face 4 extending at the upper part about half-way down the web. The top of the web is cut horizontally, as at 1, leaving the tenon to consist of the lower portion of the web, and a head 2, which is composed of the web and a part of the flange. The neck of the tenon behind this flange consists of the bottom portion of the web only. It will be seen that the parts removed from the rail are all cut away on horizontal or perpendicular lines and there are no beveled surfaces. The mortised end of each rail is formed by cutting away the parts of the rail exactly corresponding to the tenon, so that at the mortised end the rail head or tread 5 extends as far as the end 7 of the flange, but under the head a part 6 only of the web is left. The flange is cut away centrally to remove what would be the web if there were no flanges and the sides 8 8 of the flange are retained. A socket or cup

11, behind the projecting ends 8 8, forms a receptacle for the head 2 of the tenon.

In coupling the joint the rail with the tenon thereon is first placed in position. Then the mortise of the next rail is placed directly over the tenon and this rail is lowered to place. The mortise and tenon then form a lock against either lateral or longitudinal movement of the rails. The fish-plates 9 embrace the web and flange of the rail, as is common, and are secured in place by bolts 10, passing through the web and plates, as is common. When the fish-plates are applied, the mortise rail is held down, and hence the joint is locked in all directions. As all abutting surfaces are perpendicular, there is no wedging action of the parts to spread or dislocate them, as is sometimes the case with scarfed or beveled rail-joints.

What we claim is—

1. In a rail-joint, the combination of a tenoned T-rail having a portion of the head and flange cut away in perpendicular direction, and the upper portion of the web cut away in horizontal direction, and a mortised rail having the full thickness of the lower part of the web correspondingly removed, and having a rectangular socket between retained portions of the flange.

2. The combination with a tenoned rail having the lower part of the web intact, and having a head consisting of the inner parts of the flange and a narrow neck behind the same of the width of the web only, of a mortised rail having the lower part of the web removed between projecting portions of the flange, and having a cup or socket to receive the tenon-head, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOSEPH F. KOEHLER.
JOSEPH F. MILDE.

Witnesses:

WILLIAM PAAR,
BLUCHER SPERLING.