No. 741,061. PATENTED OCT. 13, 1903.

C. H. McKEE.

RAIL JOINT.

APPLICATION FILED JUNE 5, 1901.

NO MODEL.

FIG. 1.

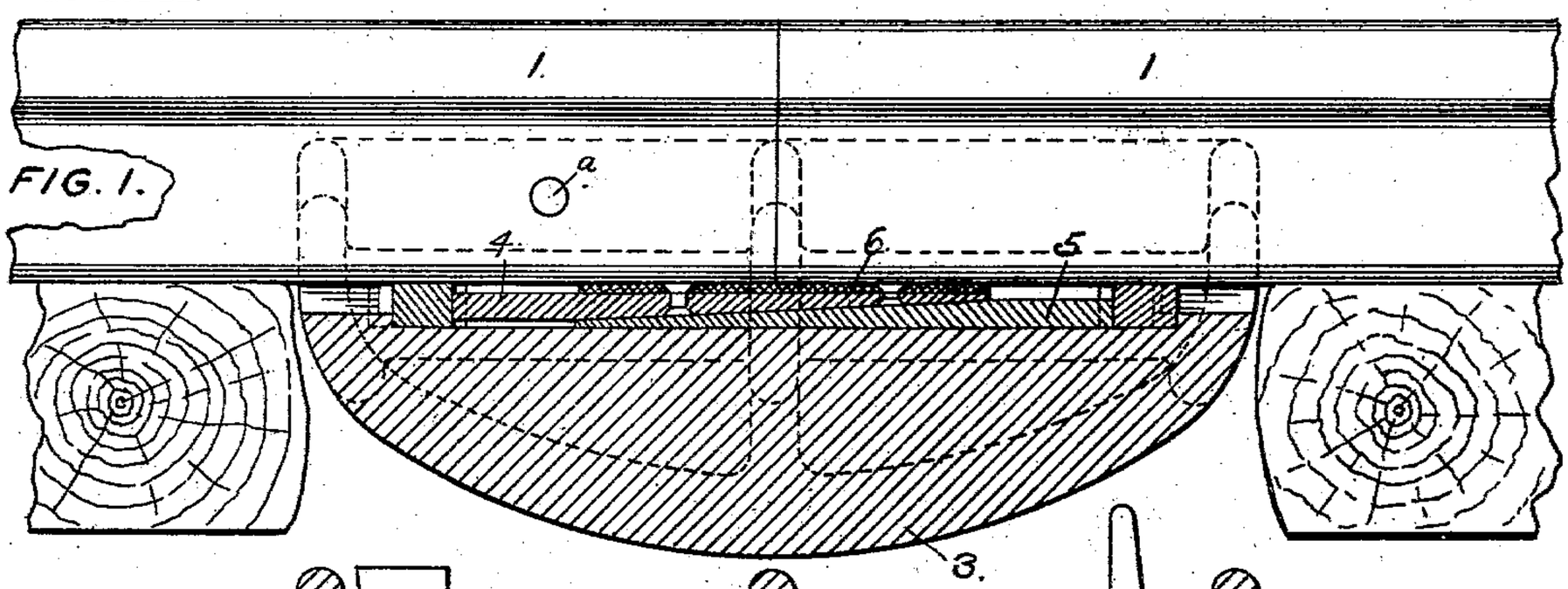


FIG. 2.

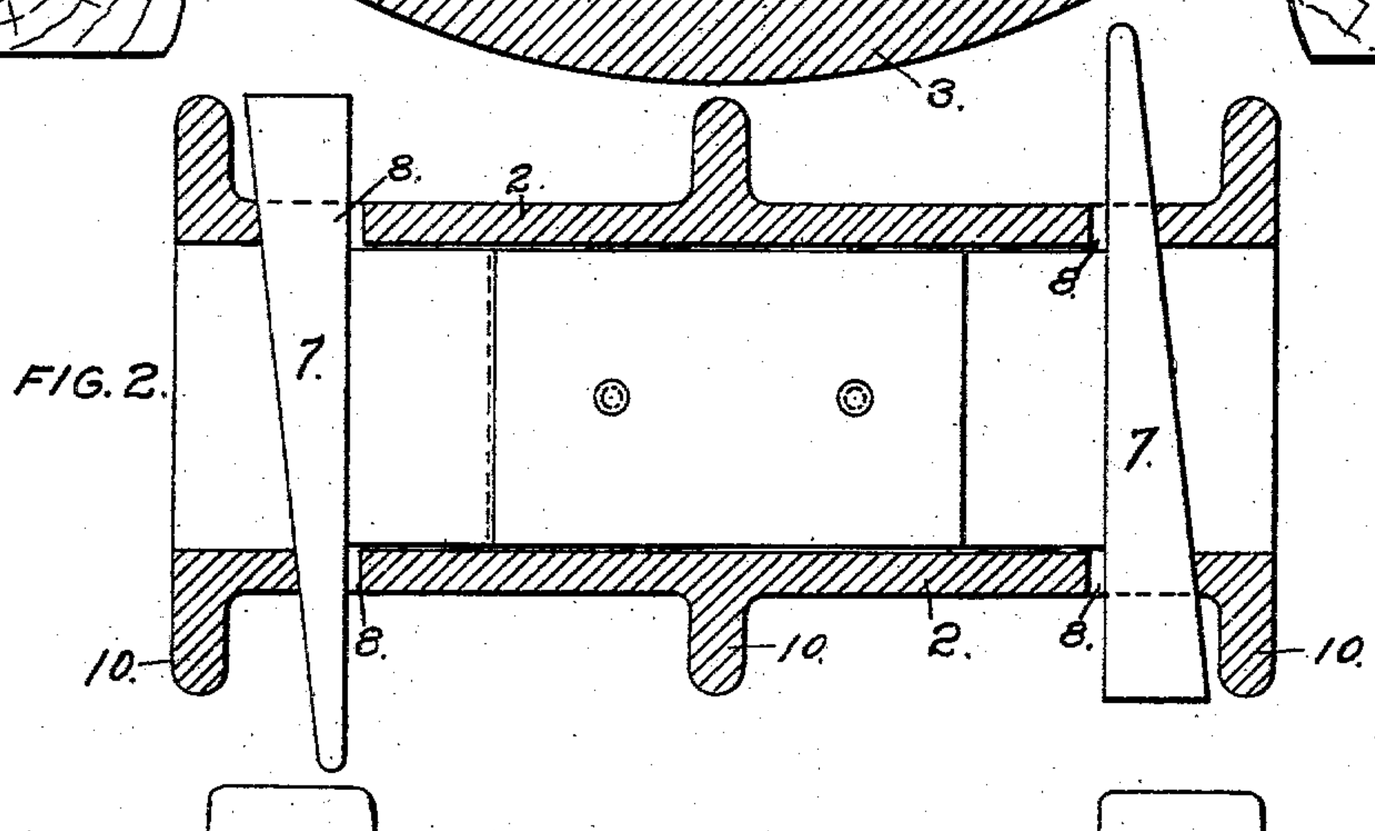


FIG. 3.

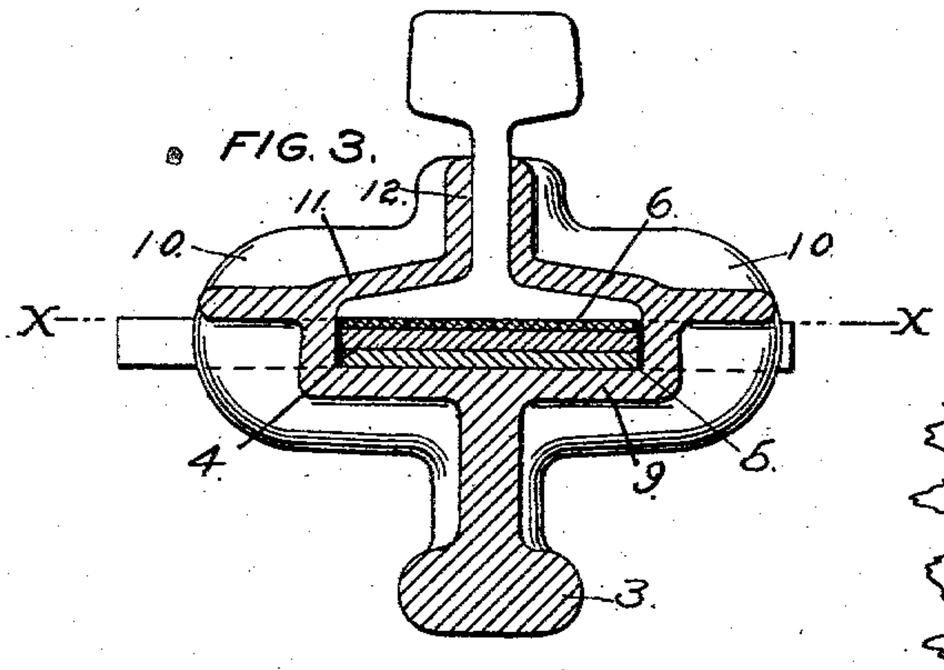
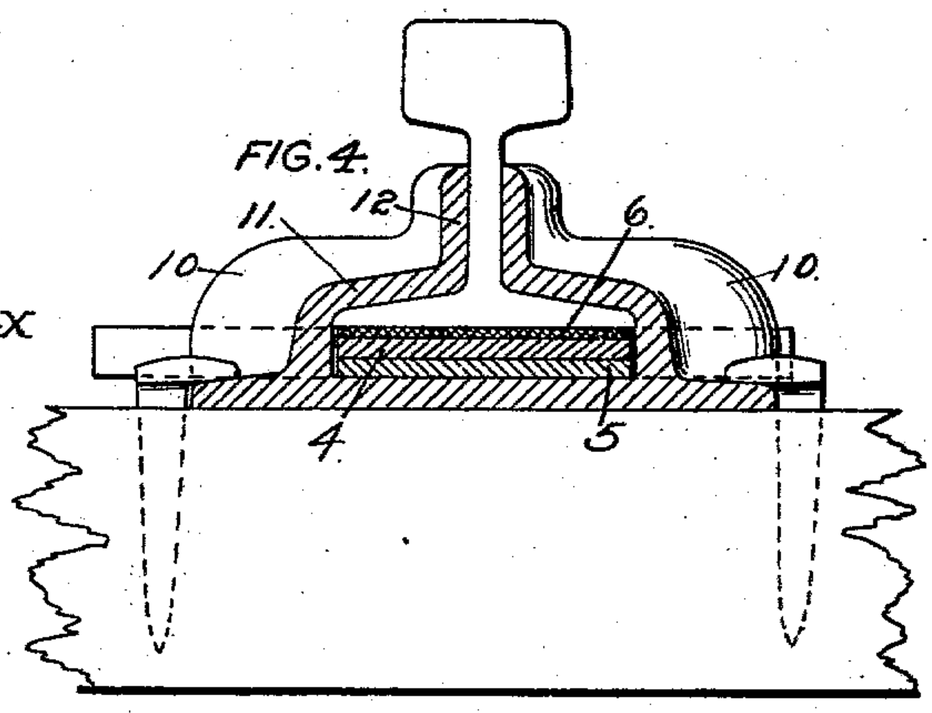


FIG. 4.



WITNESSES:

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No. 741,061. Patented October 13, 1903.

UNITED STATES PATENT OFFICE.

CHARLES H. McKEE, OF PITTSBURG, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 741,061, dated October 13, 1903.

Application filed June 5, 1901. Serial No. 63,271. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. McKEE, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The objects of my invention are to provide new and improved means for joining and supporting the ends of rails and to provide a simple and efficient construction whereby I am enabled to avoid the use of the large number of bolts, nuts, &c., usually employed in rail-joints of this class.

To this end my invention consists of a rail-joint and in the construction and combination of parts, all as hereinafter described and claimed.

In the accompanying drawings, which illustrate applications of my invention, Figure 1 is a part side elevational view and a part sectional view of two rails and a rail-joint embodying my invention; Fig. 2, a part longitudinal sectional view and a part plan of the joint; Fig. 3, a part vertical sectional view and a part elevational view of the joint, showing the rail in position therein; and Fig. 4, a view similar to Fig. 3, showing a modified form of joint particularly applicable for use on a tie.

Referring to the drawings, the flanges and a portion of the webs of the ends of the rails 1 are adapted to enter and be held in a space formed in a box, casing, or casting 2. This casing is preferably made in the forms shown, and when designed for use in cases where the meeting ends of the rails come between the ties it is provided with a centrally-disposed downwardly-extending web or truss 3. Within the casing and immediately below the base of each rail I have shown two plates 4 and 5, the upper plate, 4, having a contact-surface 6. These plates are preferably tapered for a portion of their length, as shown, and are adapted to be moved in opposite directions, one upon the other, by tapering keys 7, which are driven laterally through openings 8, formed in the casing. Instead of employing the two plates, as described, one plate could be used. When a single plate is used, the bottom surface of the plate, as well as the seat 9, should be inclined. The seat 9 when two plates are utilized presents a flat surface to the flat surface of the under plate.

For the purposes of strengthening the joint I provide ribs 10, which may be arranged as shown or differently disposed or in some instances altogether omitted.

The inner surfaces of the portions 11 of the casing are shaped to correspond to the form of the flanges of the rails, and when the latter are placed within the casing and the plates 4 and 5 driven into position the flanges of the rails will be tightly clamped between said plates and the inner surfaces of the parts 11. The parts 11 terminate in upwardly-extending flanges 12. These flanges are separated from each other and together form a slot in which the webs of the rails are held.

By the construction illustrated it will be noted that I dispense with the use of bolts and nuts, except that I may, if found desirable, employ a single bolt for the purpose of preventing the creeping or moving of the joint longitudinally upon the rails. When this bolt is employed, it is passed through a hole in the casing and one in the web of the rail, as indicated by *a* in Fig. 1.

My invention also embodies a rail-joint that will maintain the ends of two adjacent rails in good alinement and makes the juncture thereof rigid and firm.

The joint may be readily placed in position on the rails by raising an end of one of two adjacent rails and sliding the casing, with its movable plate or plates, along the rail until the rear end of the casing passes the end of the rail, after which the rail and casing are lowered and the casing slid in the opposite direction to receive the base and web of the other rail. The joint being in position, the keys are driven laterally through the casing and the small ends of the keys bent to prevent them from working loose. When only one plate or wedge is employed in place of the two wedges 4 and 5, of course but one lateral key need be used.

Having thus described my invention, what I claim is—

1. In a rail-joint, a hollow casing adapted

to receive the base and a portion of the web of each of the ends of two meeting rails, a longitudinally-movable plate or wedge, within the casing below the bases of the rails, and laterally-movable means for pressing the plate against the bases of the rails whereby the ends of the rails are securely clamped within the casing, substantially as set forth.

2. In a rail-joint, a hollow casing adapted to receive the base and web of the ends of two rails, longitudinally-movable plates within the casing located below the base-line of the rails, and means for moving the plates to cause one of them to bear against the base of each rail when the joint is applied to the rails, substantially as set forth.

3. In a rail-joint, a hollow casing adapted to receive the bases and webs of two adjacent rails, wedging-plates within the casing located below the base-line of the rails, and arranged one upon the other, the upper plate adapted to bear against the bases of the rails, and keys for moving the plates adapted to be driven laterally through the casing, substantially as set forth.

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

CHARLES H. McKEE.

Witnesses:
W. G. DOOLITTLE,
LAURA E. HUBBARD.