

No. 737,177.

PATENTED AUG. 25, 1903.

F. VEITH & F. RENFER, JR.

RAILWAY RAIL JOINT.

APPLICATION FILED NOV. 20, 1902.

NO MODEL.

Fig. 1.

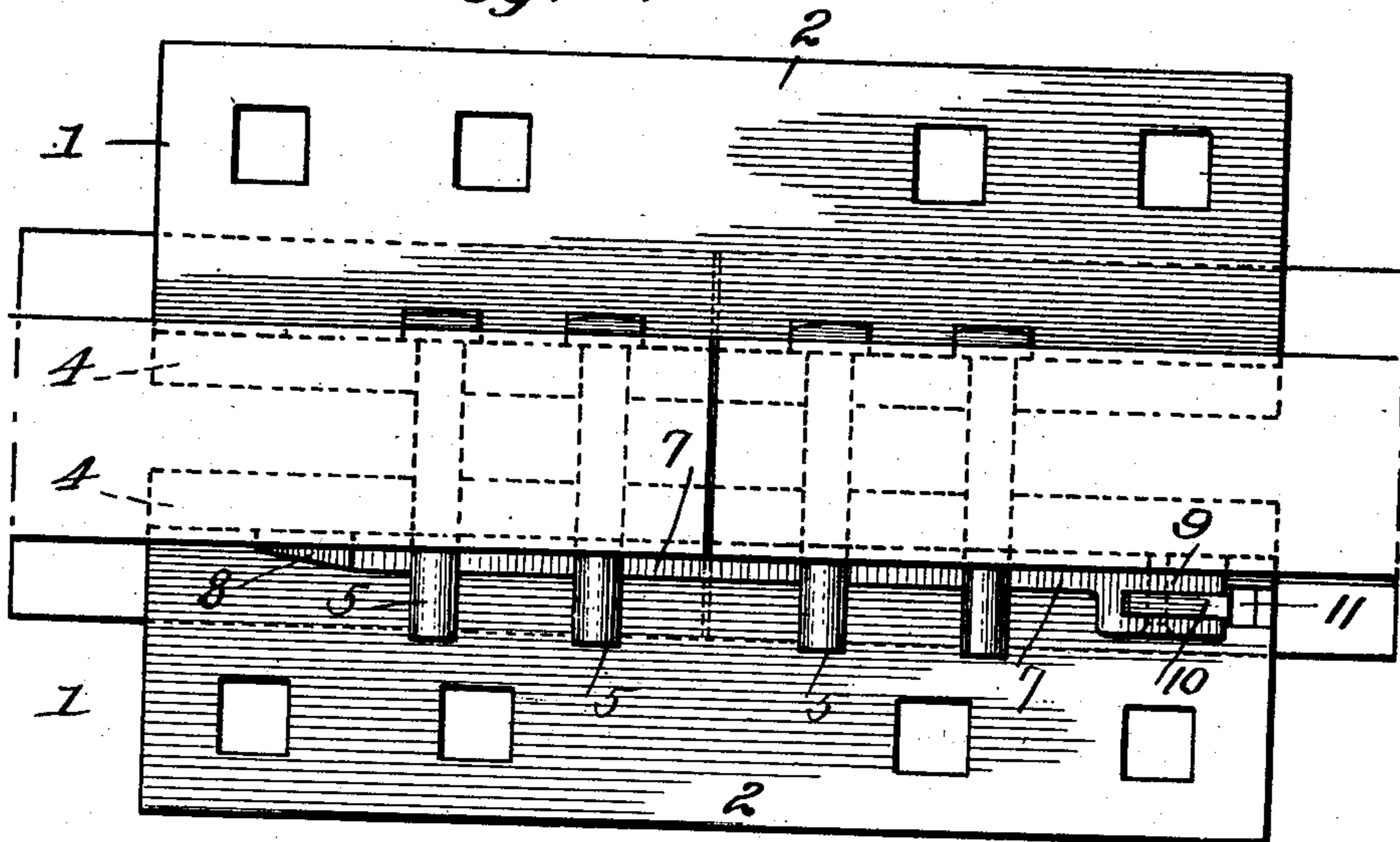


Fig. 2.

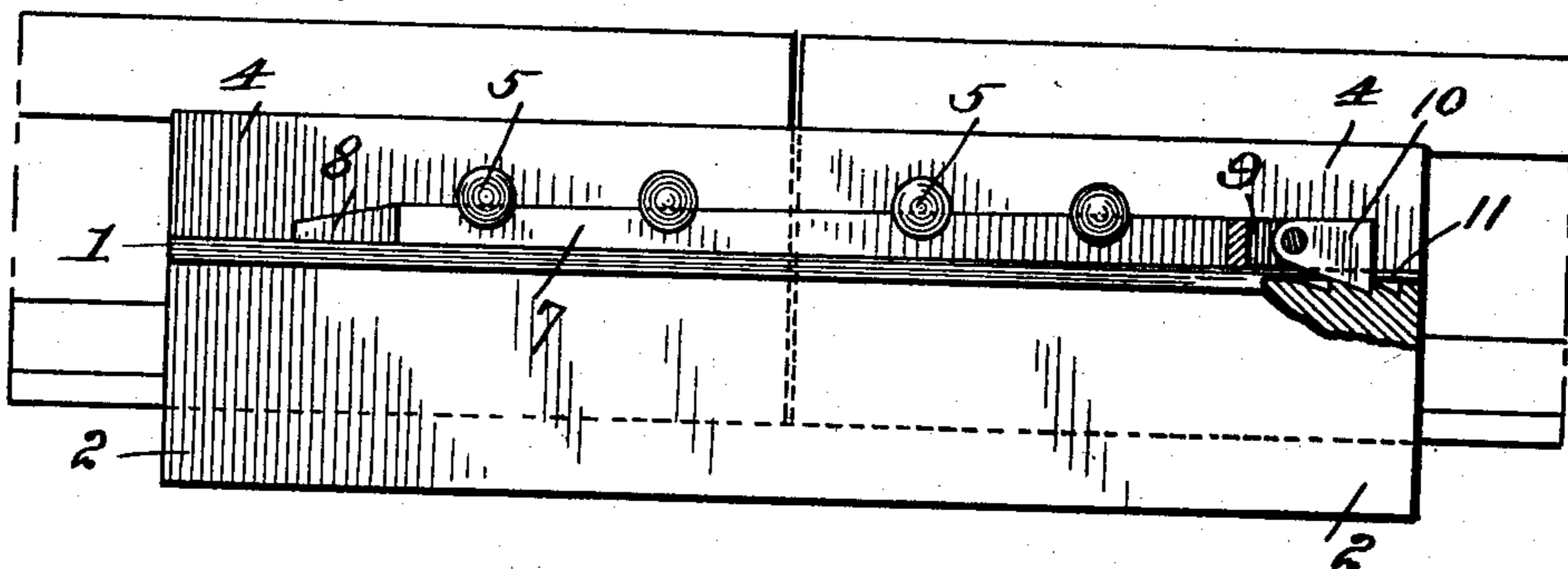
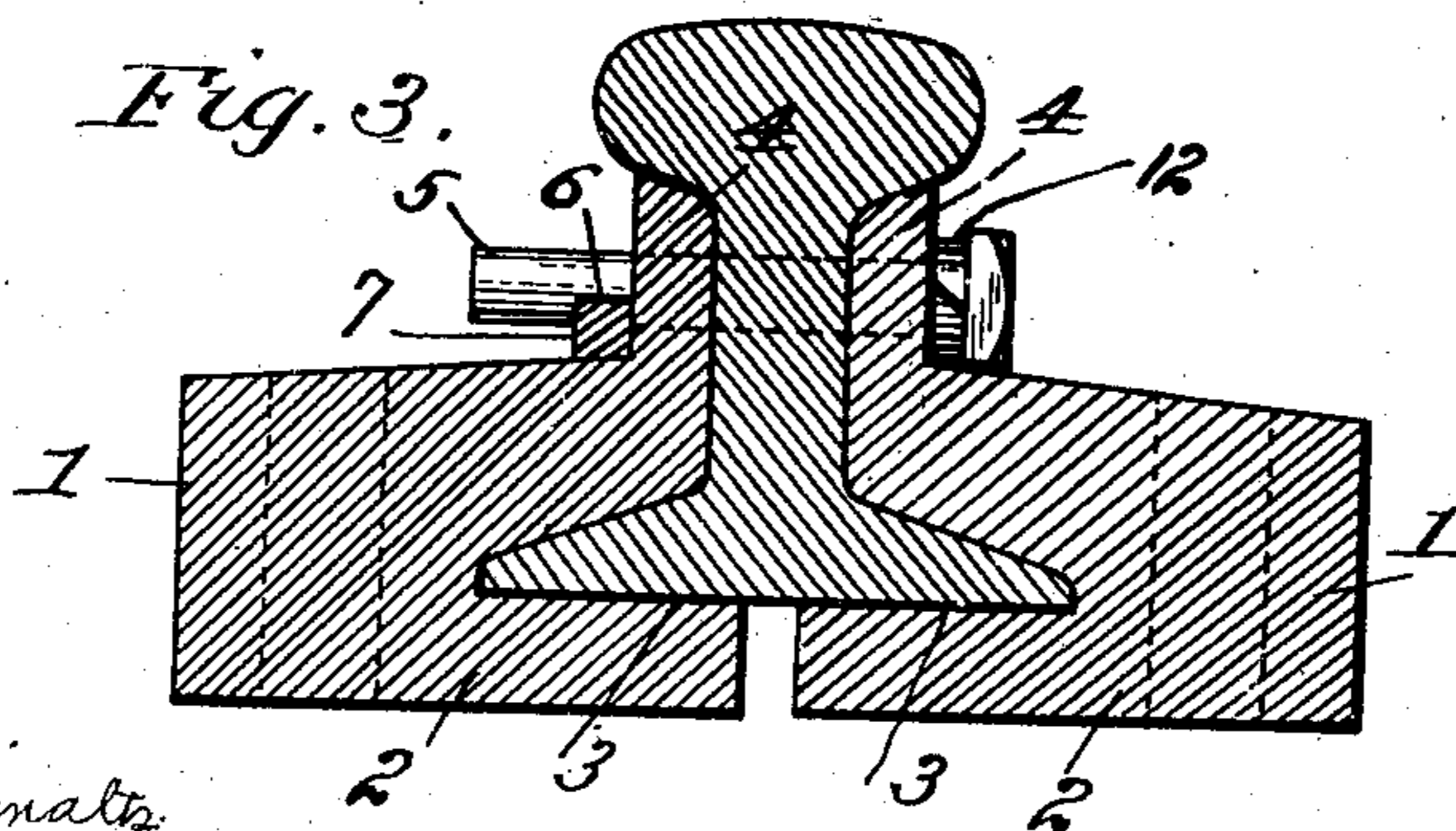


Fig. 3.



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FRED VEITH AND FRED RENFER, JR., OF PITTSTON, PENNSYLVANIA.

RAILWAY-RAIL JOINT.

SPECIFICATION forming part of Letters Patent No. 737,177, dated August 25, 1903.

Application filed November 20, 1902. Serial No. 132,116. (No model.)

To all whom it may concern:

Be it known that we, FRED VEITH and FRED RENFER, Jr., citizens of the United States, and residents of Pittston, county of Luzerne, State of Pennsylvania, have invented certain new and useful Improvements in Railway-Rail Joints, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a plan view, Fig. 2 a side elevation, and Fig. 3 a transverse sectional view.

The object of this invention is to provide a combined rail-chair and fish-plate which will form a strong and substantial support for the ends of rails and prevent their being depressed, and, further, to provide an efficient bolt-lock by means of which the bolts clamping the rail ends and fish-plates together may be readily locked in position.

Referring to the various part by numerals, 1 designates the sections of the rail-support. Each of said sections consists of the base part 2, which is provided on its inner face with the horizontal longitudinally-extending channel 3, adapted to receive one-half of the tread of the rail, whereby when the two sections of the chair are in position they form a very substantial support for the rail. At the inner upper edge of each of these sections is formed the upstanding flange 4, which flanges serve as fish-plates, and through these flanges are formed the usual bolt-holes to receive the bolts 5, which clamp the fish-plates and rail ends together. Each bolt near its outer end is provided with a transverse recess or slot 6 to receive the locking-bar 7. This bar rests on the top of one of the chair-sections, its upper edge fitting in the notches in the bolts and its inner side bearing against the side of the adjacent flange 4. At its forward end it is tapered, as shown, to form an entering-point 8, and from the rear end of this entering-point the top of the bar inclines slightly upward to the rear end. At its rear end it is enlarged to form the jaw 9, between the members of which is pivoted a dog 10, whose lower rear corner is adapted to drop into recesses 11, formed in the upper surface of one of the sections of the rail-chair, and to thereby prevent the accidental displacement or withdrawal of the locking-bar. The recesses are formed in

the bolts at such a point that when the tapered locking-bar is forced thereinto the heads of the bolts will be drawn tightly against the outer surface of one of the fish-plates and the inner face of the locking-bar will be forced tightly against the outer face of the other fish-plate. If it be desired, spring-washers 12 may be placed on the bolts, near the heads thereof, as shown in Fig. 3, in order that a constant inward pressure will be exerted on the locking-bar through the bolts. By providing this spring-washer the notches need not be so accurately placed in the bolts as would be necessary if the spring-washers were not used. The entering-point of the locking-bar is tapered on the outer face thereof in order that it may act as a wedge to draw the bolts through the fish-plates and rails. It will be noted that the upper edge of the locking-bar inclines upward from its forward to its rear end. The purpose of this is that when the locking-bar is driven inward to proper position its upper edge will bind in the recess of the bolt nearest the rear end thereof and will thereby prevent the locking-bar moving any farther inward. The pivoted locking-pawl by fitting in one of the notches of the rail-chair prevents the rearward movement of the locking-bar. It will therefore be readily seen that this bar is securely locked in position and that the bolts cannot be accidentally displaced. Each rail-chair is provided with suitable vertical openings to permit of them being properly spiked to the ties.

It will thus be seen that we provide a simple but very strong rail-support and an efficient means for clamping the ends of the rails thereto. The means for locking the bolts in position by operating simultaneously on all the bolts makes it possible to complete the rail-joint quickly, and when the parts are in position it is practically impossible for any of the bolts to be accidentally displaced. The peculiar form of rail-chair acts as a further means for securing the ends of the rails and prevent any lateral movement thereof should the bolts by any possibility be displaced. It will also be noted that by extending the sections of the rail-chair inward under the tread of the rail it will be impossible for the ends of the rails to be depressed.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A rail-joint comprised of two rail-chair
5 sections each of said sections being formed on its inner face with a horizontal longitudinal channel to receive the base of the rail and with the upstanding flange at its inner upper edge to serve as a fish-plate, said flanges
10 being formed with holes for the passage of bolts, a series of bolts adapted to pass through said holes and provided with notches near their ends, and a longitudinal locking-bar adapted to fit in said notches to clamp said
15 bolts in position, and means for preventing the accidental withdrawal of said locking-bar.
2. A rail-joint comprised of a pair of fish-

plates a series of bolts adapted to pass through said fish-plates, each bolt being provided with a notch near its end, and a locking-bar formed
20 with a tapered entering-point and with an upward and rearward inclined upper edge, said bar being adapted to enter the recesses in the bolts to clamp them in position, and a locking-dog in the rear end of said bar to prevent
25 the accidental withdrawal thereof.

In testimony whereof we hereunto affix our signatures, in the presence of two witnesses, this 19th day of November, 1902.

FRED VEITH.

FRED RENFER, JR.

Witnesses:

B. A. CROWTHER,

OSCAR J. SCHMALTZ.