

No. 746,127.

PATENTED DEC. 8, 1903.

P. J. McCANN & J. H. BRASSEL.
RAIL CHAIR AND JOINT.

APPLICATION FILED JULY 27, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

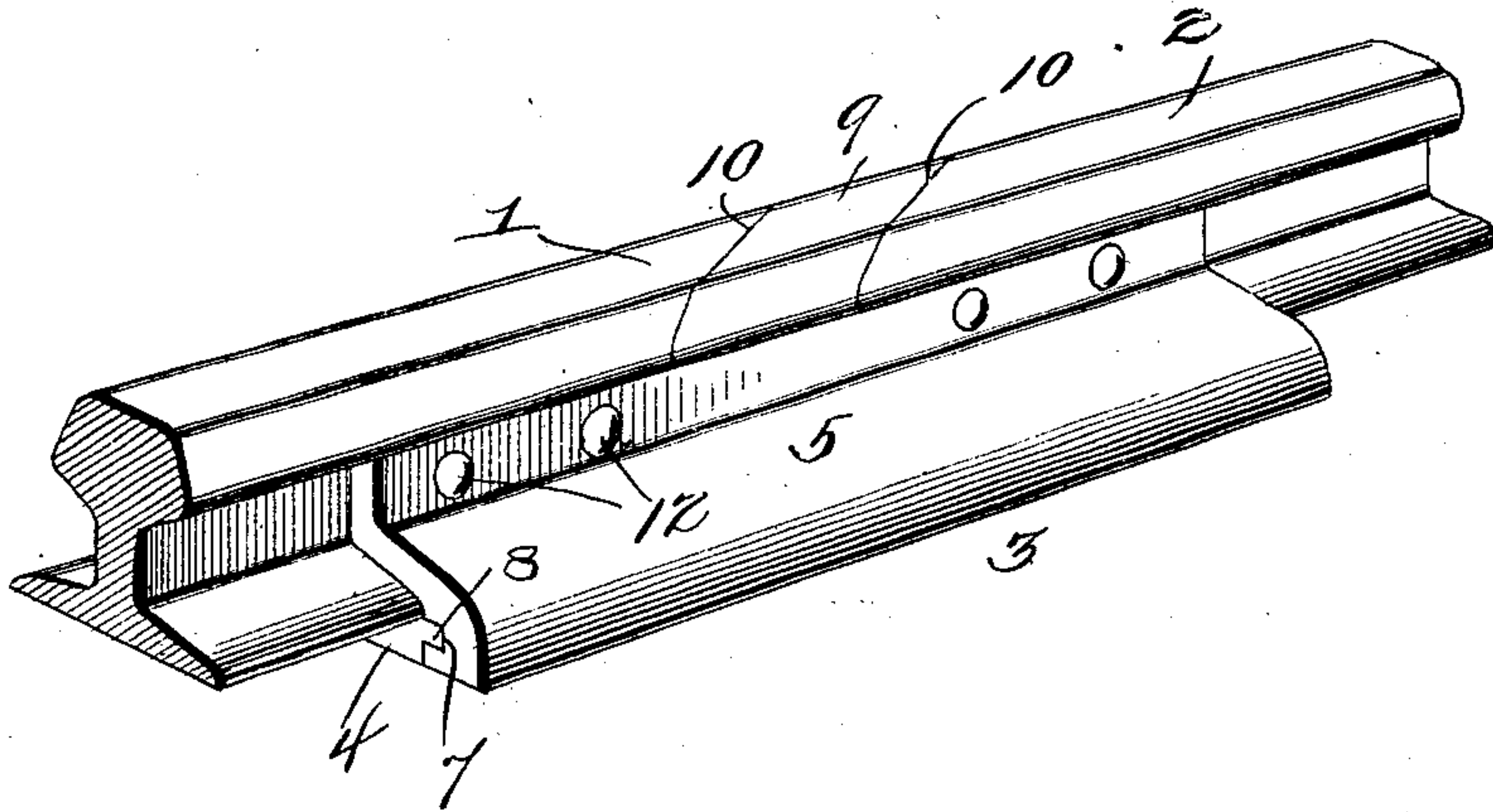
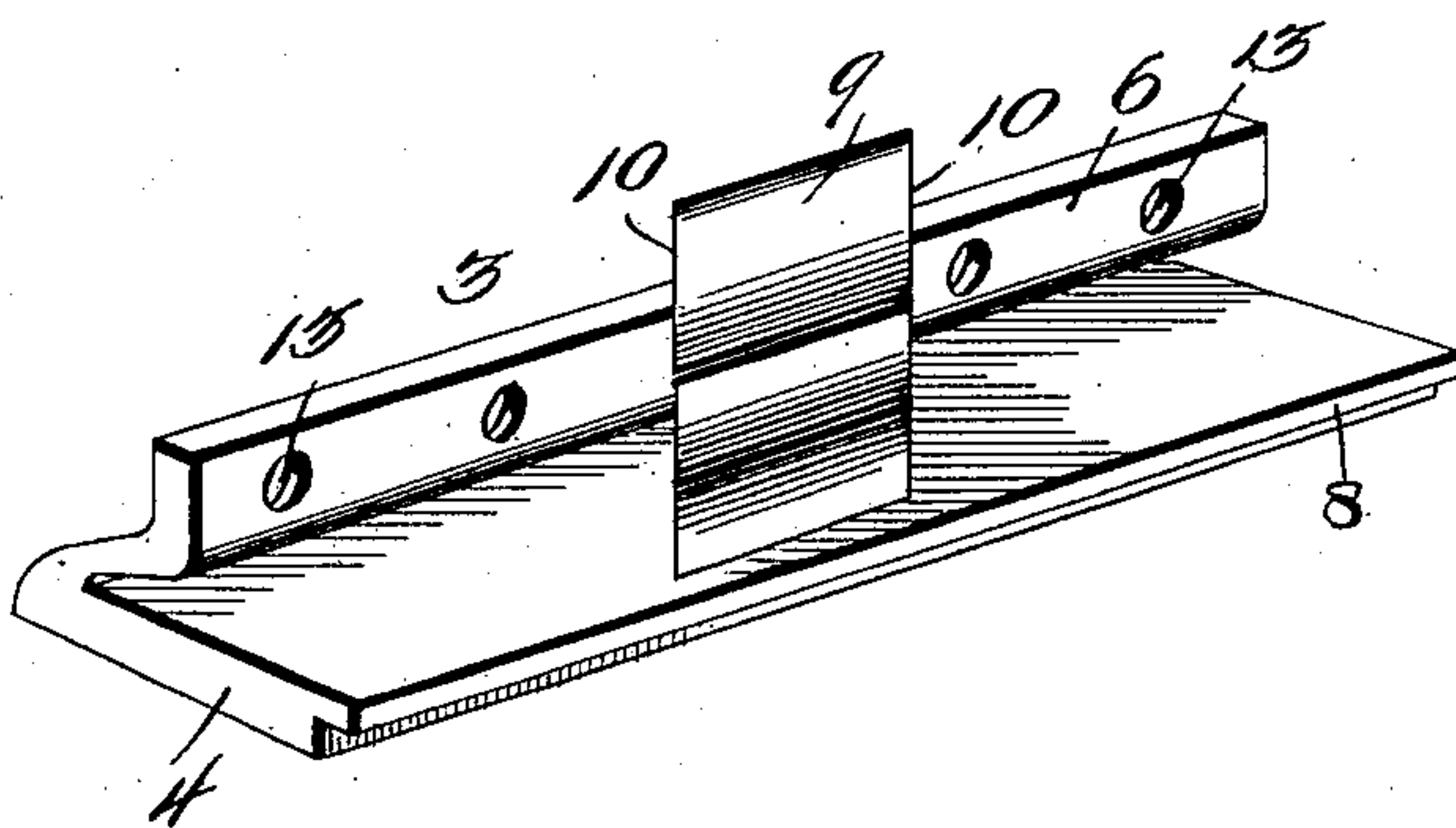


Fig. 2.



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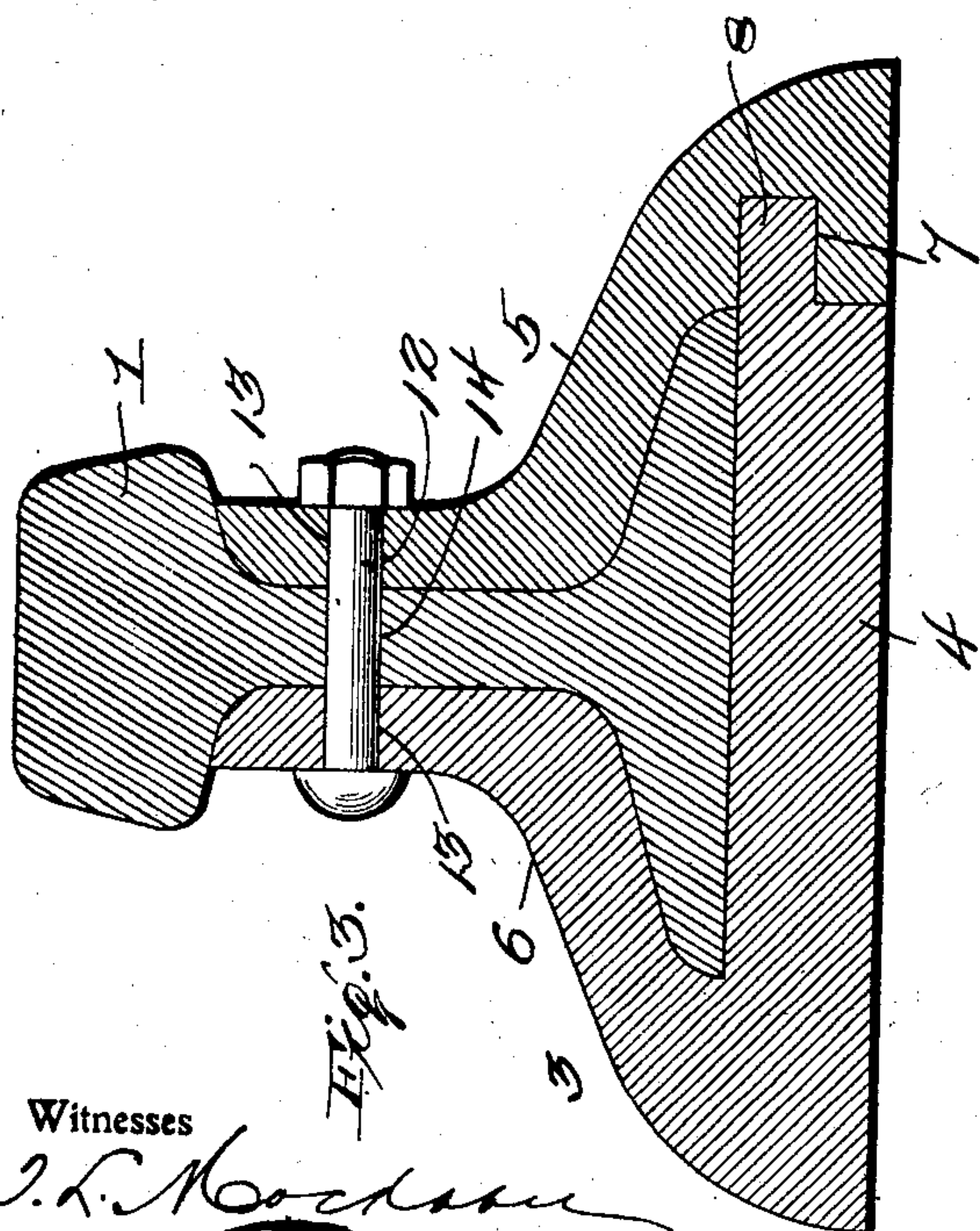
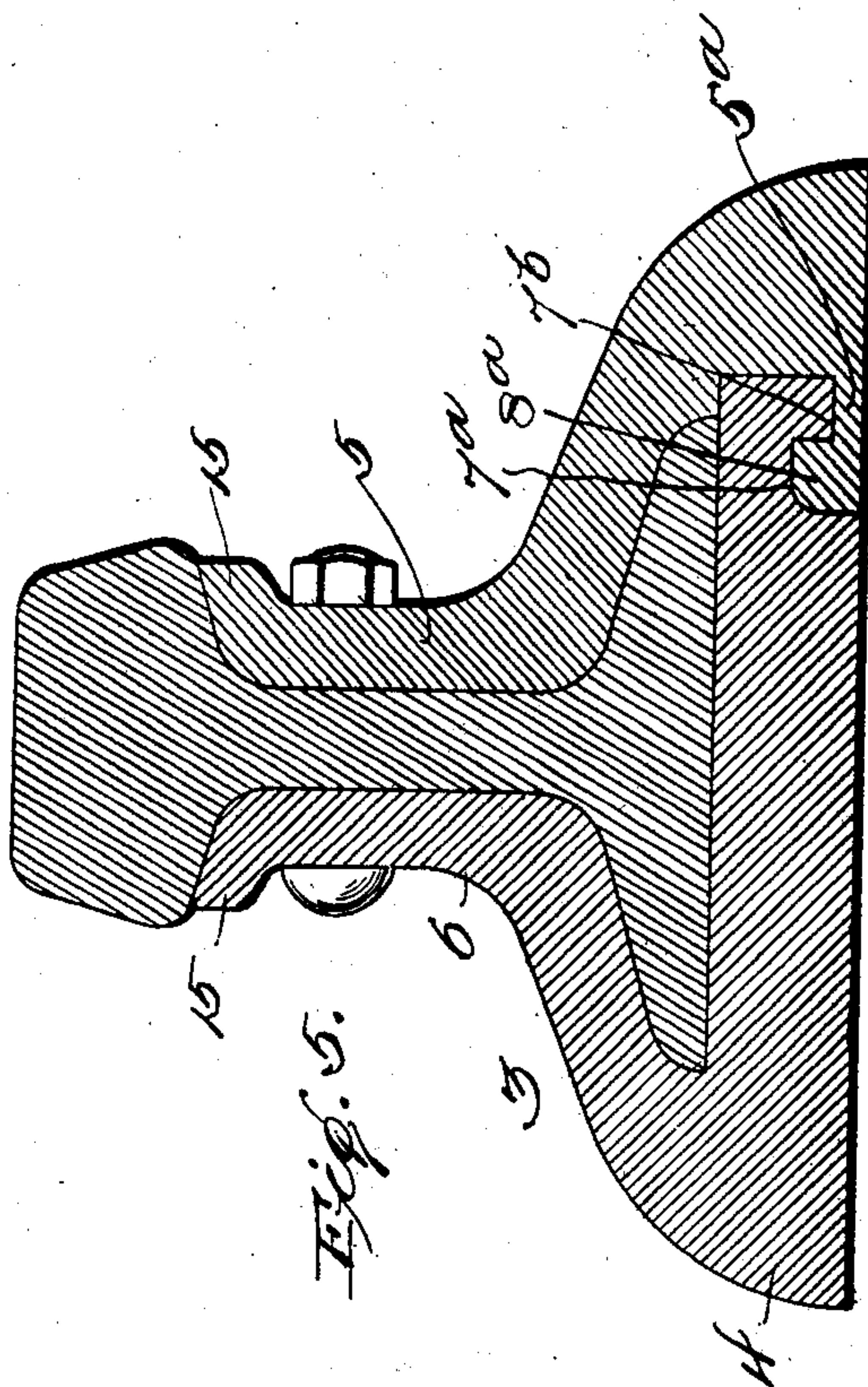
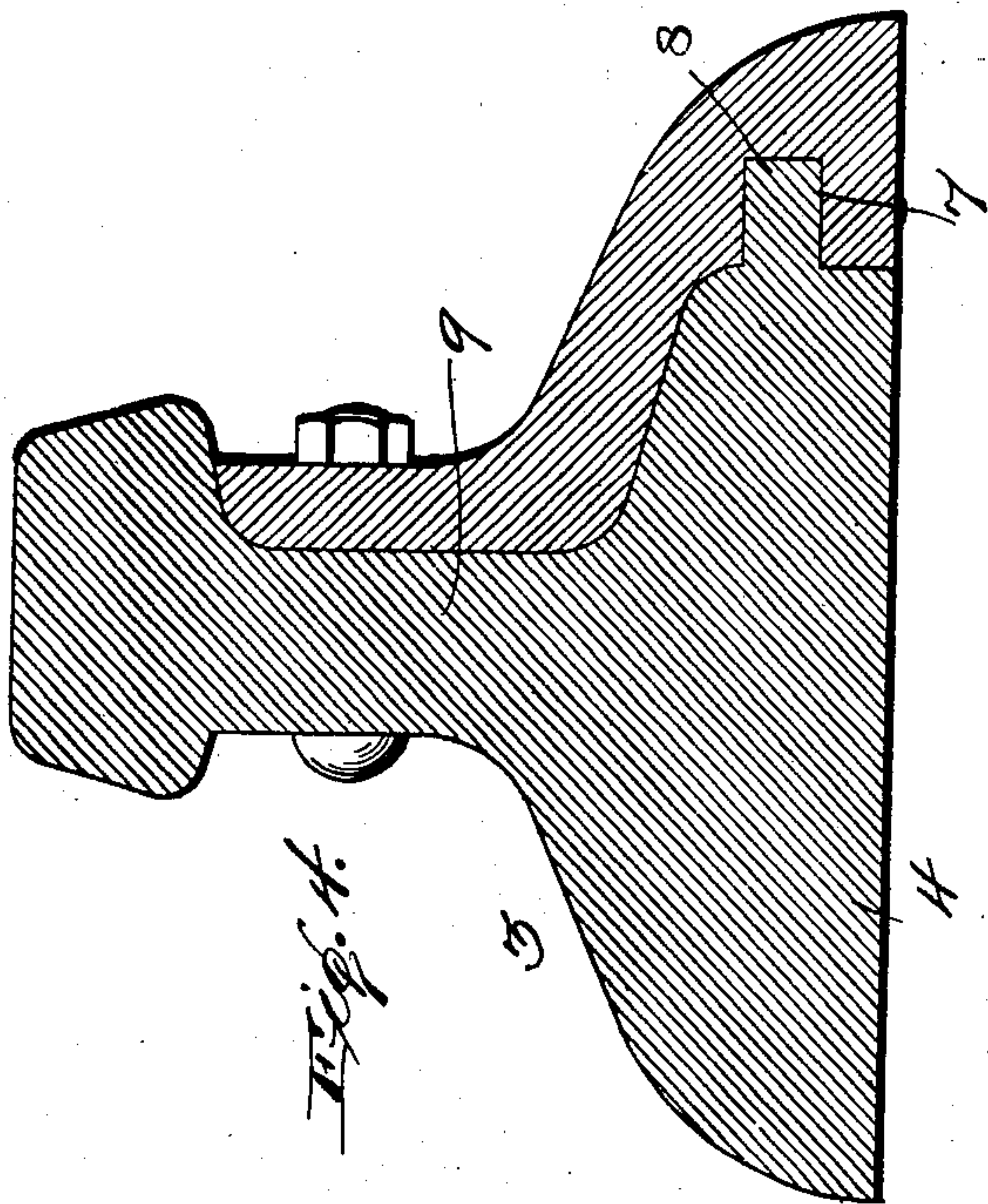
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

PATRICK J. McCANN AND JOHN HENRY BRASSEL, OF SHINGLETON,
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RAIL CHAIR AND JOINT.

SPECIFICATION forming part of Letters Patent No. 746,127, dated December 8, 1903.

Application filed July 27, 1903. Serial No. 167,213. (No model.)

To all whom it may concern:

Be it known that we, PATRICK J. McCANN and JOHN HENRY BRASSEL, citizens of the United States, residing at Shingleton, in the
5 county of Alger and State of Michigan, have invented certain new and useful Improvements in Rail Chairs and Joints; and we do declare the following to be a full, clear, and exact description of the invention, such as will
10 enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in chairs and joints for railroad-rails.

The object of the invention is to provide a
15 rail joint and chair whereby the ends of the rail may be quickly and accurately fitted and firmly held together and braced against tilting or lateral movement.

Another object is to provide a rail-joint
20 whereby the clicking sound occasioned by the car-wheels when passing over the joints of the rails will be obviated.

A further object is to provide a rail joint and chair which will be simple in construction, strong, and durable and which when assembled forms practically a smooth continuous rail-tread and is not liable to get out of
25 alinement.

With these and other objects in view the
30 invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claims.

Figure 1 is a perspective view of the adjacent ends of two rail-sections, showing the improved construction of joint and chair. Fig. 2 is a similar view of the chair with the rails removed. Fig. 3 is a vertical cross-sectional
40 view through the chair and rail. Fig. 4 is a similar view through the chair and block. Fig. 5 is a view similar to Fig. 3, showing a modified form of construction.

Referring to the drawings more particularly, 1 and 2 denote the adjacent ends of two rail-sections, and 3 denotes the chair, which consists of a base portion 4 and upwardly-projecting side pieces 5 and 6, the side piece
45 5 being formed separately from the base portion and provided along its lower inner edge

with a groove 7, which is adapted to receive a tongue 8, formed on the adjacent edge of the base portion 4, whereby said side piece and base are joined.

9 denotes a block arranged midway between
55 the ends of the chair and formed integral with the base 4 and side piece 6. The block 9 projects above the sides of the chair and conforms to the shape of the rail-tread. The ends of the block are beveled or cut at an
60 oblique angle with respect to the length of the rail, the block thus extending diagonally between the side pieces 5 and 6, as shown at 10, and the ends of the rails are cut on a similar angle, so that when they are arranged in
65 the chair the oblique ends of the rails and the ends of the block will fit tightly up against each other and leaving no shoulder or obstruction against which the car-wheels might strike, and the angle of this cut or bevel may
70 be of any desired degree.

The inner sides of the side pieces 5 and 6 are shaped to conform to the web and flange of the rail, against which they snugly fit, the upper edges of the side pieces engaging the
75 under side of the head of the rail and firmly bracing the same.

12 denotes bolts which are passed through holes 13 in the side pieces of the chair and through holes in the ends of the rail, as shown,
80 and 14 denotes nuts which are screwed upon the ends of the rails and rigidly clamp the parts together to form practically a smooth continuous rail.

In Fig. 5 is shown a modified form of connection between the removable side piece 5 and the base of the chair. In this instance a groove 7^a is formed in the bottom of the base portion of the chair, and the material between the groove and the adjacent edge of
85 the base is of less thickness than the main portion of the base, as shown at 7^b. On the lower inner edge of the removable side piece 5 is formed an inwardly-projecting flange 5^a, which lies under the edge 7^b of the base, and
90 on the flange 5^a is formed a bead or tongue 8^a, which is adapted to engage the groove 7^a and securely hold the parts together. In this view the upper edges of the side pieces 5 and 6 of the chair are formed with outwardly-pro-
95 100

jecting flanges 15, which are adapted to engage the under side of the head of the rail, thereby firmly bracing the same.

The chair and joint as herein described may be made applicable to any form or style of rails, insuring great strength to the same and necessitating the use of a much less number of ties than are used with rails joined in the usual manner.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. A rail chair and joint comprising a base and upwardly-projecting parallel side pieces adapted to embrace the sides of the rails, and a block, having beveled sides and formed integral with the base, said block projecting above the upper edges of the side pieces and having its upper surface in the plane of the tread of the rail and extending transversely at an oblique or diagonal angle to and between said side pieces to fit between the oblique parallel ends of adjoining rails, substantially as described.

2. A rail chair and joint comprising a base and upwardly-projecting parallel side pieces

adapted to embrace the sides of the rail, one of said side pieces having a removable connection with said base, a block formed integral with said base and one of said side pieces and projecting above the upper edges of the side pieces and having its upper surface in the plane of and conforming to the shape of the tread of the rail, said block extending at an oblique or diagonal angle to and between said side pieces to fit between the oblique parallel ends of adjoining rails, substantially as described, and means for holding said parts together, substantially as described.

3. A rail chair and joint comprising a base and upwardly-projecting parallel side pieces adapted to embrace the sides of the rail, one of said side pieces being removable, a lock-joint connection between said removable side piece and said base, a block having beveled ends and formed integral with said base and one of said side pieces and projecting above the upper surface of said side pieces and having its upper surface in the same plane as and conforming to the shape of the tread of the rail, and bolts adapted to pass through holes in said side pieces and the ends of said rails to hold said parts together, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

PATRICK J. McCANN.
JOHN HENRY BRASSEL.

Witnesses:

J. CLEMENS,
M. E. SHIPPY.