

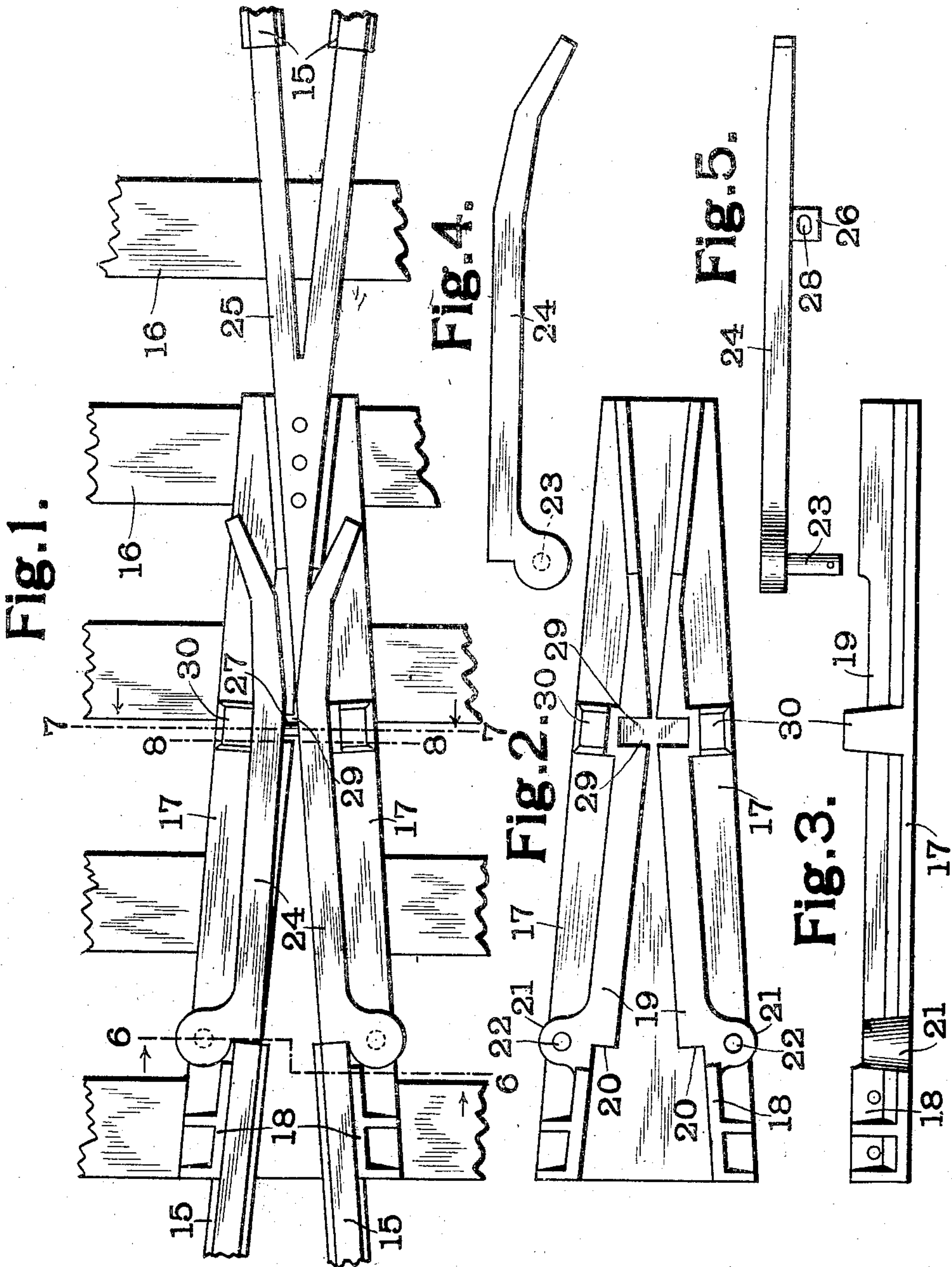
B. J. MORGAN.
RAILWAY FROG.

APPLICATION FILED MAY 12, 1909.

931,073.

Patented Aug. 17, 1909

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 6.

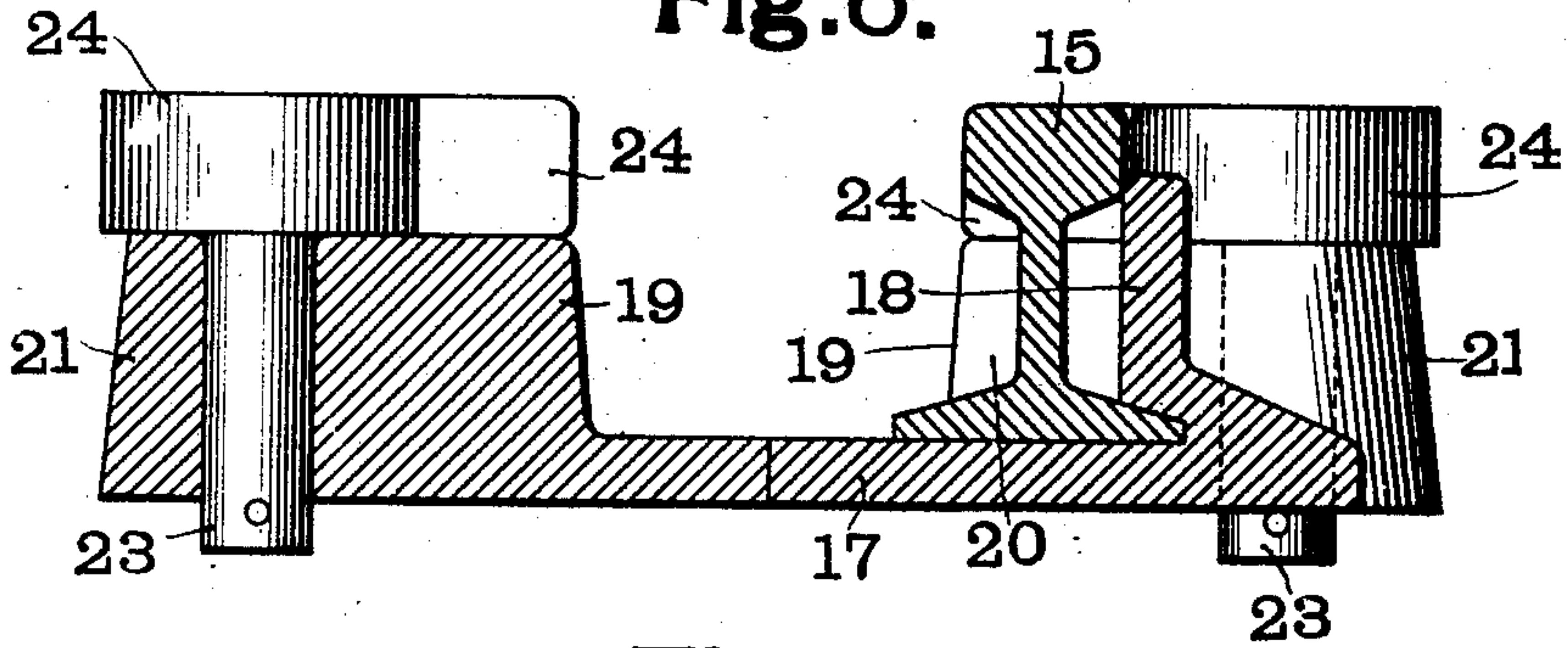


Fig. 7.

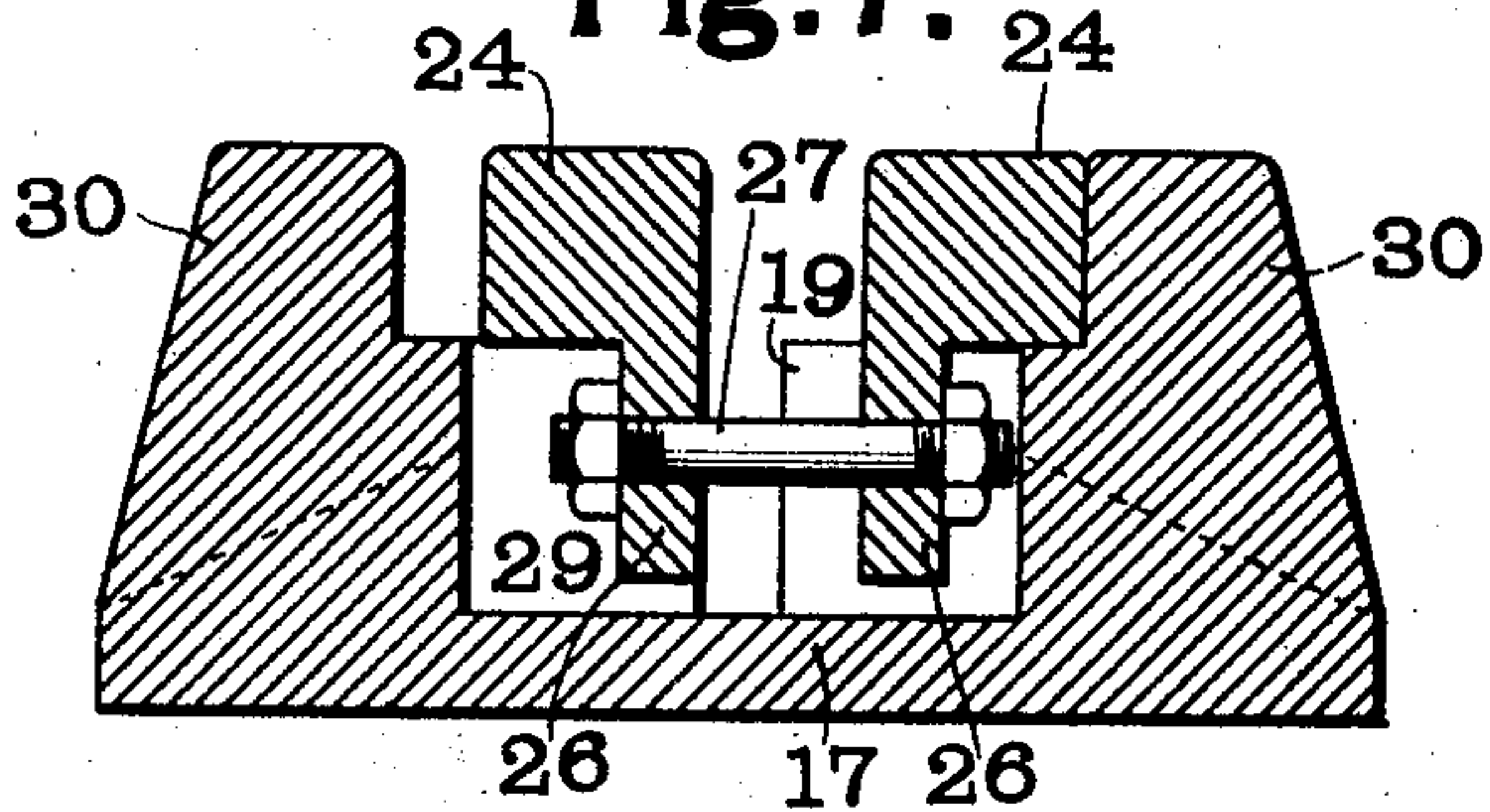


Fig. 8.

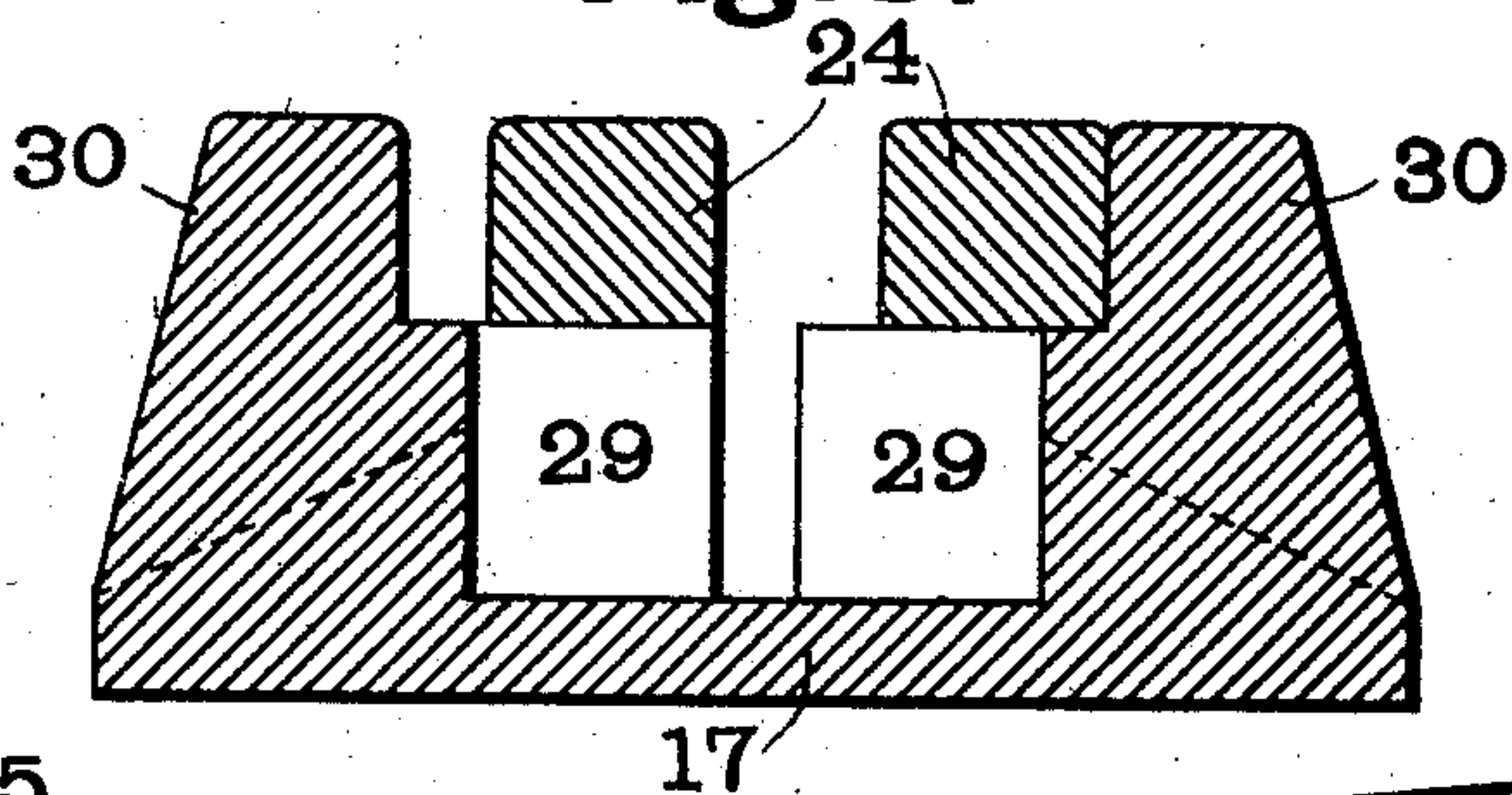


Fig. 9.



Fig. 10.

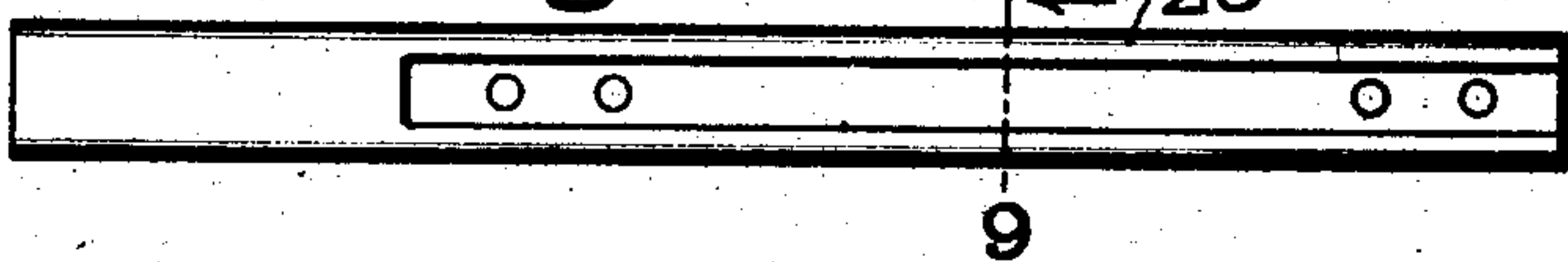
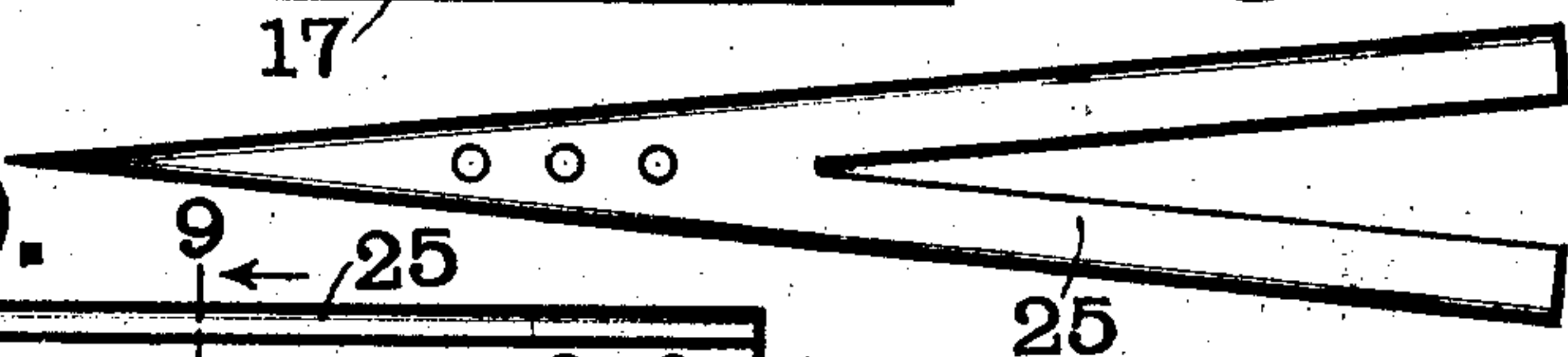


Fig. 11.



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UNITED STATES PATENT OFFICE.

BENJAMAN J. MORGAN, OF ST. LOUIS, MISSOURI.

RAILWAY-FROG.

No. 931,073.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed May 12, 1909. Serial No. 495,428.

To all whom it may concern:

Be it known that I, BENJAMAN J. MORGAN, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a certain new and useful Railway-Frog, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to railway frogs and more particularly to that class of frogs provided with movable wing rails which are actuated by the flanges of the wheels of the passing trains.

The object of my invention is to provide a frog of the class referred to which will be as simple as possible of construction and at the same time be strong and durable and not likely to get out of order.

A further object of my invention is to provide a frog in which the point may be reversed so as to increase the length of life of the frog.

In the accompanying drawings which illustrate one form of frog made in accordance with my invention, Figure 1 is a top plan view of a portion of the railway crossing to which my frog is applied; Fig. 2 is a top plan view of the bed plate; Fig. 3 is a side view of the bed plate; Figs. 4 and 5 are a plan view and a side view respectively of one of the wing rails; Fig. 6 is an enlarged section on the line 6—6 of Fig. 1; Fig. 7 is an enlarged section on the line 7—7 of Fig. 1; Fig. 8 is an enlarged section on the line 8—8 of Fig. 1; Fig. 9 is a section on the line 9—9 of Fig. 10 and Fig. 10 and Fig. 11 are a side view and a plan view respectively of the frog point.

Like marks of reference refer to similar parts in the several views of the drawings.

15 represents a pair of crossing railway rails forming a portion of a railway crossing and secured to ties 16 in the usual manner.

17 is a bed plate secured to the ties 16 and provided at one end with chairs 18 adapted to receive one end of each of the pair of rails 15. The bed plate 17 is provided with raised portions 19 adapted to receive the wing rails which will be hereinafter described. These raised portions 19 are provided with shoulders 20 (Fig. 2) against which the ends of the rails 15 are adapted to abut. Adjacent to these shoulders 20 the

parts 19 are provided with extensions 21 provided with pivot holes 22 for receiving the pivot pins 23 of the wing rails 24. At the opposite end the bed plate 17 is provided with a point 25 secured between the raised portions 19 on the bed plate 17. This point connects with the opposite ends of the pair of rails 15. The point is made alike on its upper and lower faces, as is shown in Figs. 9 and 10, so that it may be reversed and thus materially increase the life of the frog, as the point is the part of the frog which first wears out. The wing rails 24 embrace the point 25 as best shown in Fig. 1. In order to move one of the wing rails from the other, each of said wing rails is provided with a downwardly projecting lug 26 and these lugs are connected by means of a bolt 27, as best shown in Fig. 7. This bolt passes through openings 28 in the lugs which openings are slightly elongated, as best shown in Fig. 5, so as to allow for the necessary rocking movement between the lugs and the bolt. The bed plate 19 is provided with recesses 29 to receive the lugs 26 and the bolt 27. Adjacent to the recesses 29 the bed plate 17 is provided with a pair of stops 30 which limit the movement of the wing rails.

The operation of my frog will be obvious. The wing rails 24 may stand in any position. When, however a car is passing over the track the flange on its wheel will strike one of the wing rails 24 and force it aside and from the bolt 27 draw the other wing rail in position against the point 25 so as to form a continuous track for the tread of the wheel. As the wing rails 24 are pivoted outside of the line of the crossing rails 15 it will be seen that when the wing rail is moved into the operative position it will abut firmly against one of the rails 15 and thus form a rigid and continuous track for the wheel.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a railway frog, the combination with a pair of crossing rails, of a fixed point, a pair of independently pivoted wing rails embracing said point, said wing rails being free to move under the influence of the passing car wheels, and a connection between said wing rails for moving one from the other.

2. In a railway frog, the combination with a pair of crossing rails, of a fixed point, a pair of independently pivoted wing rails

embracing said point, said wing rails to move under the influence of the passing car wheels, a connection between said wing rails for moving one from the other, and stops for limiting the movement of said wing rails.

3. In a railway frog, the combination with a pair of crossing rails, of a bed plate, a point secured to said bed plate, and a pair of wing rails embracing said point and independently pivoted to said bed plate outside of the line of said crossing rails.

4. In a railway frog, the combination with a pair of crossing rails, of a bed plate, a point secured to said bed plate, a pair of wing rails embracing said point and independently pivoted to said bed plate outside of the line of said crossing rails, and stops carried by said bed plate for limiting the movement of said wing rails.

5. In a railway frog, the combination with a pair of crossing rails, of a bed plate, a point secured to said bed plate, a pair of wing rails embracing said point and independently pivoted to said bed plate outside of the line of said crossing rails, downwardly projecting lugs carried by said wing rails, and a connection between said lugs for moving one of said wing rails from the other, said bed plate being provided with recesses to receive the said lugs.

6. In a railway frog, the combination with a bed-plate, of a pair of crossing rails secured to one end of said bed-plate, a point similarly shaped on its upper and lower

faces whereby said point may be reversed, means for securing said point to the other end of said bed-plate, and a pair of movable wing rails cooperating with said point.

7. In a railway frog, the combination with a bed-plate, of a pair of crossing rails secured to one end of said bed-plate, a point similar on its upper and lower faces whereby said point may be reversed, a pair of flanges carried by the other end of said bed plate and adapted to receive said point between them, and a pair of movable wing rails cooperating with said point.

8. In a railway frog, the combination with a pair of crossing rails, of a bed plate, a point secured to said bed plate and similar on its under and upper faces, whereby said point is reversible, a pair of wing rails independently pivoted to said bed plate outside of the line of said crossing rails and embracing said point, downwardly projecting lugs carried by said wing rails, a connection between said lugs moving one wing rail from the other, said bed plate being provided with recesses to receive said lugs and stops carried by said bed plate for limiting the movement of said wing rails.

In testimony whereof, I have hereunto set my hand and affixed my seal in the presence of the two subscribing witnesses.

BENJAMIN J. MORGAN. [L. S.]

Witnesses:

W. A. ALEXANDER,
ELIZABETH BAILEY.