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DOOR HANGER.

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Patented Sept. 21, 1909

934,974.

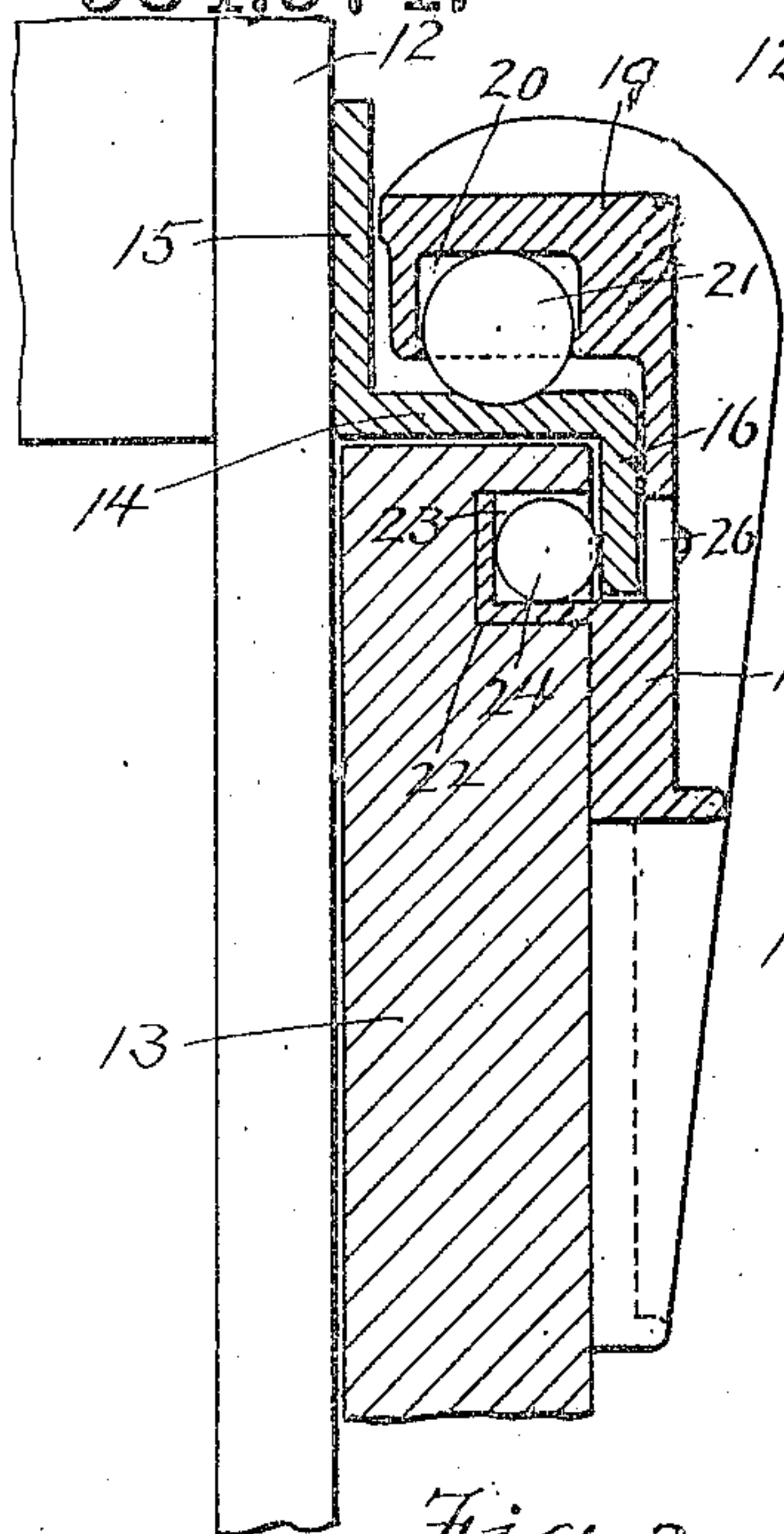


Fig. 2.

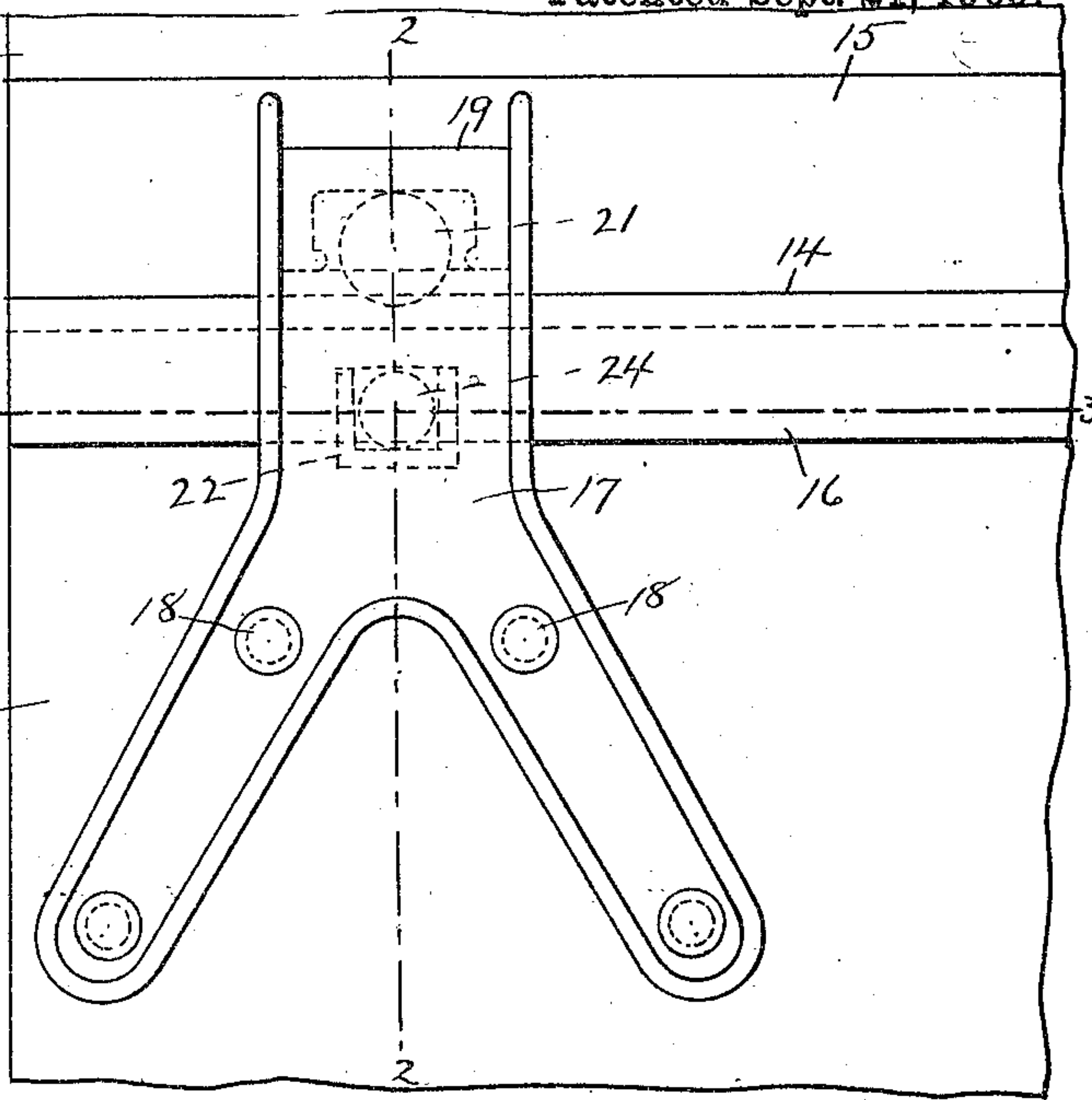


Fig. 1.

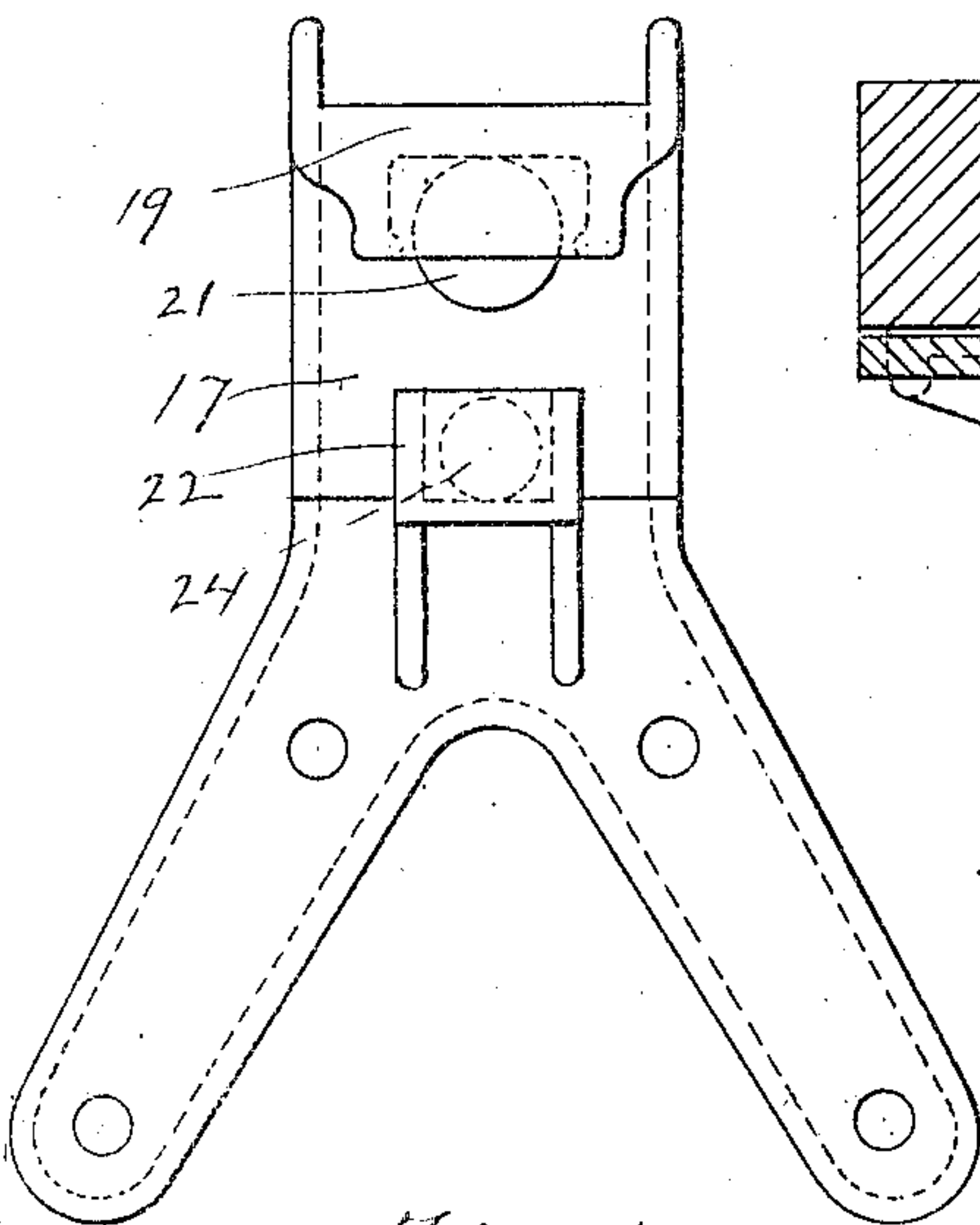


Fig. 4.

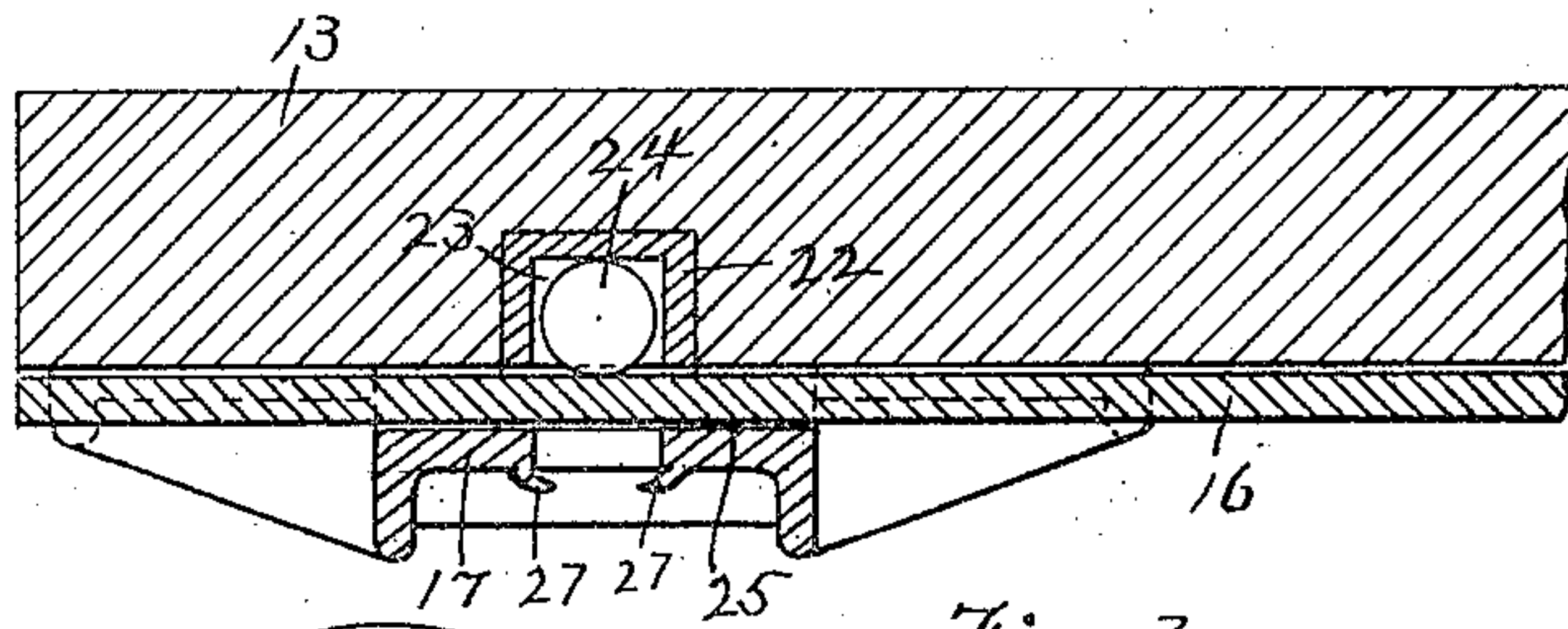


Fig. 3.

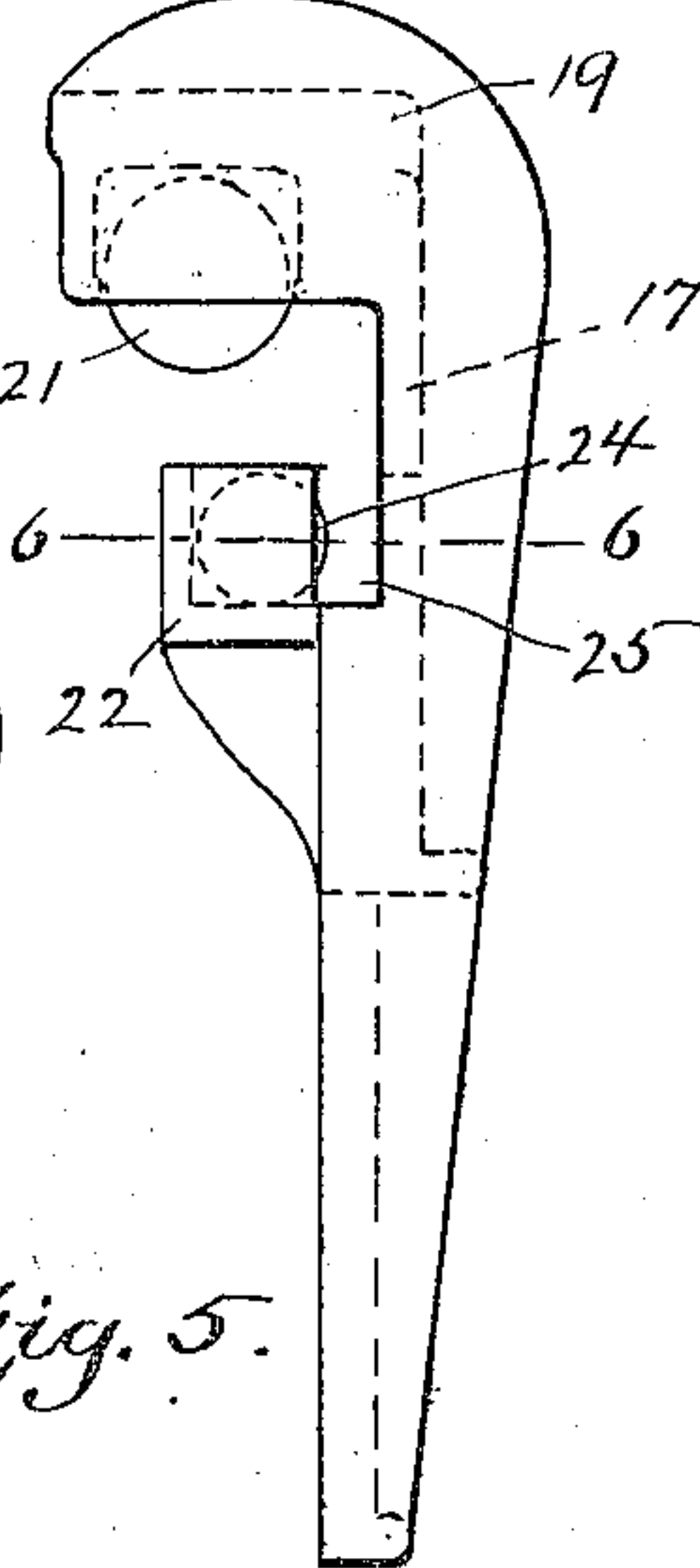


Fig. 5.

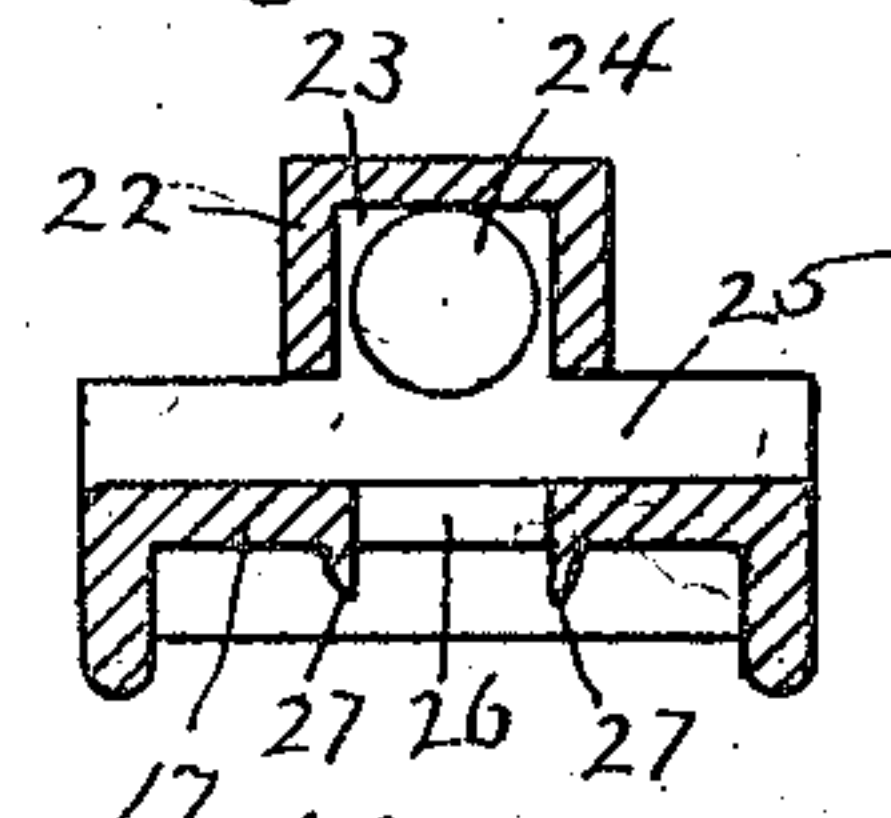


Fig. 6.

Witnesses:

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# UNITED STATES PATENT OFFICE.

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## DOOR-HANGER.

934,974.

Specification of Letters Patent. Patented Sept. 21, 1909.

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*To all whom it may concern:*

Be it known that I, MORRIS E. KANALY, of Arlington, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Door-Hangers, of which the following is a specification.

This invention relates to a door hanger and a track therefor which comprises a substantially horizontal tread portion, an inner flange projecting upwardly from the tread portion, and adapted for attachment to the side of a car or building, and an outer vertical flange projecting downwardly from the tread portion, and serving as a guide for the upper edge of the door, said upper edge projecting above the lower edge of the depending flange, so that it is confined between said flange and the corresponding part of the side of the car or building opposite the flange.

The invention has for its object to provide a hanger adapted to have an anti-frictional bearing not only on the tread portion of the track, but also on the inner side of the depending flange of the track, so that the frictional resistance to the movement of the door may be reduced to the minimum.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a side elevation showing a portion of a car or building, and portions of a sliding door and of a track therefor, together with a side elevation of a hanger engaged with the door and track, and embodying my invention. Fig. 2 represents a section on line 2—2 of Fig. 1. Fig. 3 represents a section on line 3—3 of Fig. 1. Fig. 4 represents an elevation of the inner side of the hanger detached from the door. Fig. 5 represents an edge view of the hanger. Fig. 6 represents a section on line 6—6 of Fig. 5.

The same numerals of reference indicate the same parts in all the figures.

In the drawings 12 represents a portion of one side of a freight car or other structure, containing a doorway, and 13 represents a portion of a door adapted to cover said doorway, the door being movable horizontally to open and close the opening. A fixed horizontal track is attached to the structure above the doorway, and extends

along the side of the structure beyond one end of the doorway, so that it is adapted to support the door when the latter is open, as usual. The track comprises a horizontal tread portion 14, an inner vertical flange 15 projecting upwardly from the inner edge of the tread portion, and an outer vertical flange 16 projecting downwardly or depending from the outer edge of the tread portion. The inner flange 15 is bolted or otherwise secured to the side 12 of the structure, and the outer flange 16 projects below the upper edge of the door, and serves to guide the latter in its movements, the upper edge of the door projecting between the outer flange 16 and the corresponding portion of the side 12.

The door is provided with suitable hanger frames, of which only one is here shown, the two being alike, so that a description of one will suffice. The hanger frame is composed of a body portion 17 having means, such as bolts 18, for attachment to the door, and an arm 19 formed on the body portion 17, and projecting inwardly therefrom over the tread portion 14 of the track. Said arm is provided with a cavity or socket 20 in which is loosely located an anti-friction ball 21, the upper side of which bears on the upper wall of the cavity 20, while its lower side projects downwardly from the arm 19 and bears upon the upper side of the tread portion 14.

The body 17 is provided with a lower arm 22 also projecting inwardly therefrom and which is located below the arm 19, and is provided with a cavity or socket 23, in which is loosely mounted an anti-friction ball 24. A recess 25 is formed between the socketed portion of the lower arm 22 and the corresponding portion of the body 17, said recess being formed to receive the lower edge portion of the depending flange 16 of the track. The ball 24 projects laterally from the socket 23 into said recess, so that when the hanger frame is applied to the door and track, the ball 24 bears simultaneously against one side of the cavity 23 in the lower arm 22, and against the inner side of the depending flange 16. Provision is thus made for the movement of the door with the minimum frictional resistance due to its guidance by the flange 16.

The hanger frame is preferably cast in a single piece from malleable metal, a hole 26



being formed in the body 17 opposite the lower arm 22, for the insertion of the ball 24 into its cavity. To prevent the detachment of the ball 24 from the hanger frame 5 when the cavity 23 is not obstructed by the track flange 16, I provide spurs or projections 27 on the body 17 adjacent to the orifice 26, said spurs being of the same malleable metal as the hanger frame, and adapted 10 to be bent inwardly after the insertion of the ball, to obstruct the orifice 26, and prevent the outward movement of the ball through it, as indicated in Fig. 3.

To prepare the door for the application of 15 the hanger frame, a mortise is cut in the upper portion of the door for the reception of the lower arm 22.

I claim:

1. In combination, a track having a horizontal tread portion, and a depending flange 20 at the outer edge thereof, a hanger frame adapted for attachment to a door and provided with a socketed upper arm projecting over the said tread portion, and a socketed 25 lower arm projecting behind the depending

flange of the track, and balls seated in the sockets of said arms, one of said balls bearing on the upper side of the tread, while the other ball bears on the inner side of the depending flange of the track. 30

2. A hanger comprising a frame adapted for attachment to a door, and provided with inwardly projecting upper and lower arms, the upper arm having means for engaging the tread portion of a door track, while the 35 lower arm has a cavity which is separated from the corresponding portion of the hanger frame by a flange-receiving recess, and a ball located in said cavity, and projecting therefrom into the recess, the portion 40 of the hanger frame opposite the cavity having an orifice for the insertion of the ball, and means for contracting the orifice to prevent the removal of the ball.

In testimony whereof I have affixed my 45 signature, in presence of two witnesses.

MORRIS E. KANALY.

Witnesses:

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PETER W. PEZZETTI.