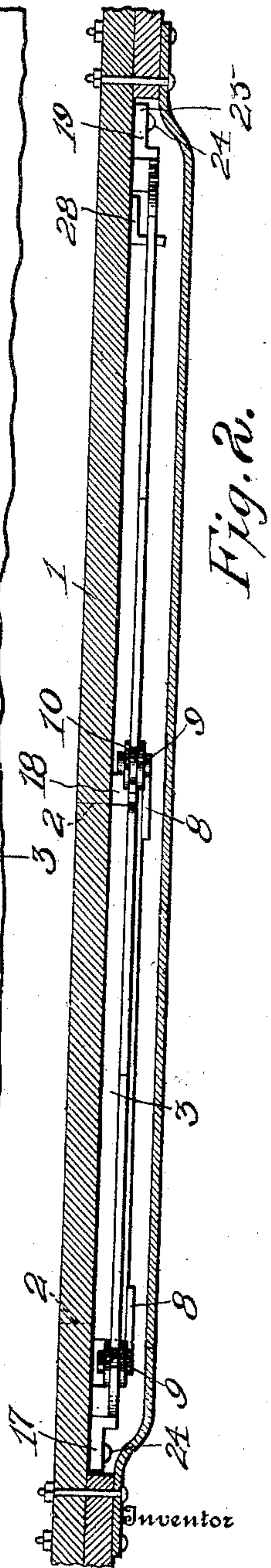
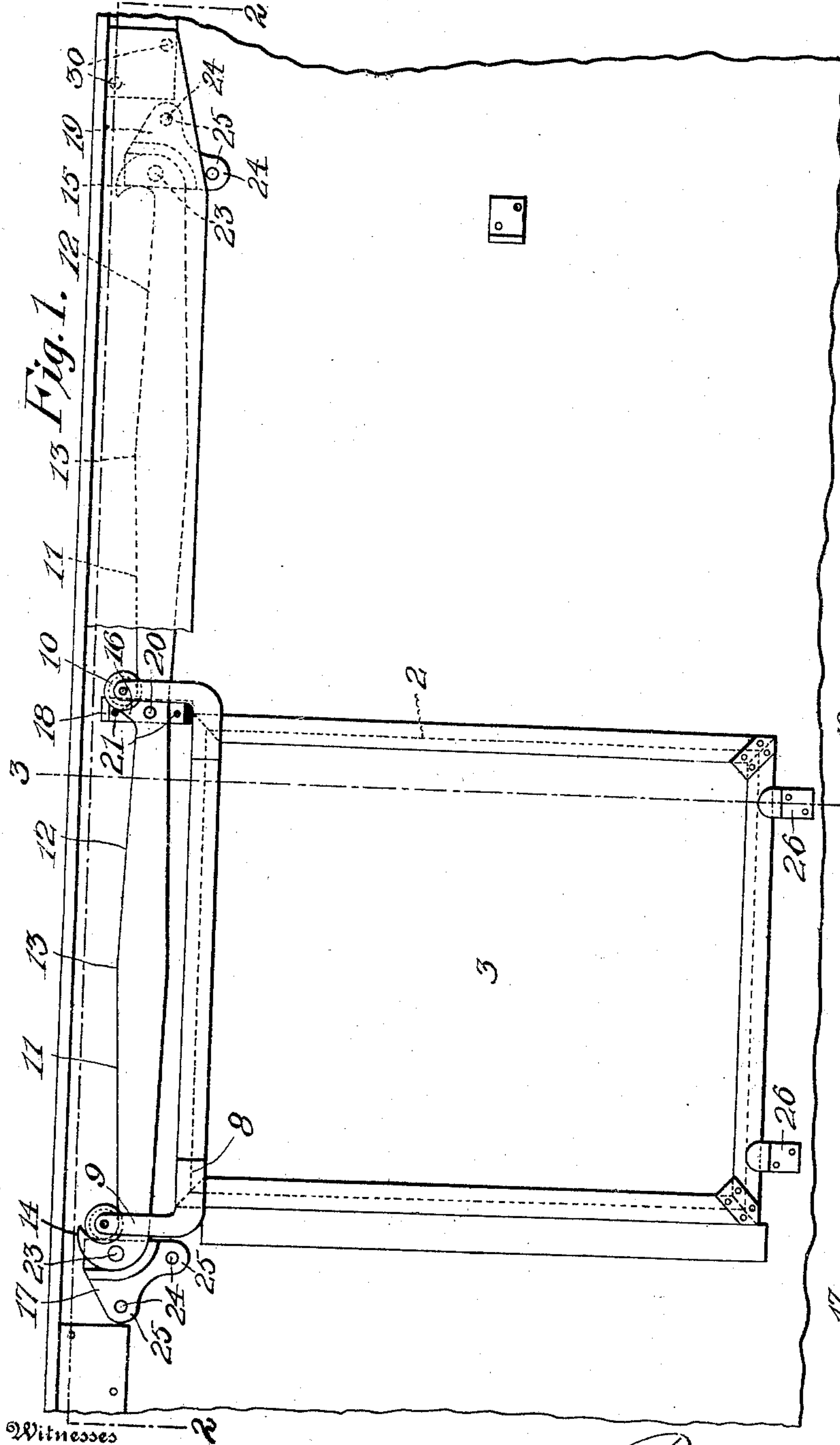


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DOOR HANGER AND TRACK.  
APPLICATION FILED MAR. 13, 1908.

915,386.

Patented Mar. 16, 1909.

2 SHEETS—SHEET 1.



Witnesses  
James F. Crown  
M. E. Skinner.

By

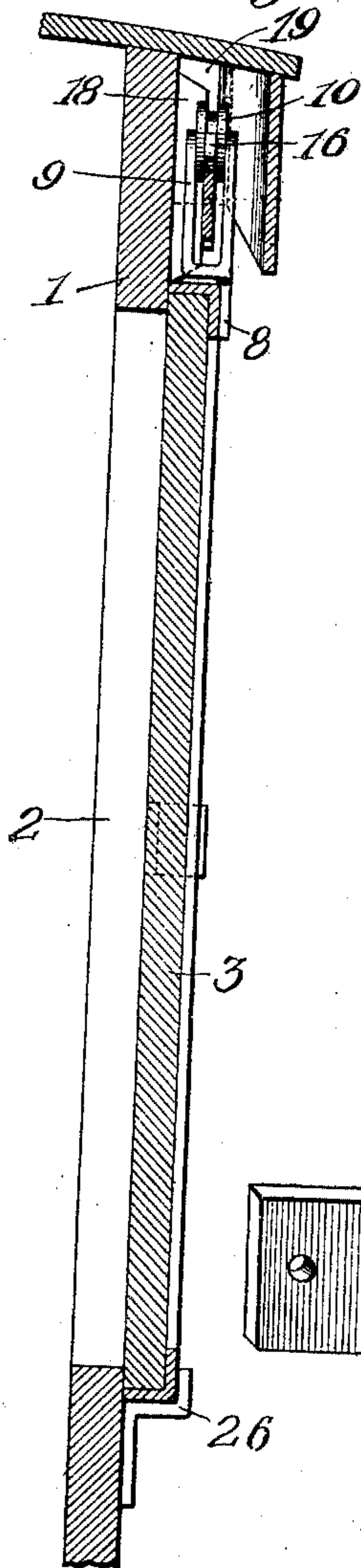
Peter J. Schuler  
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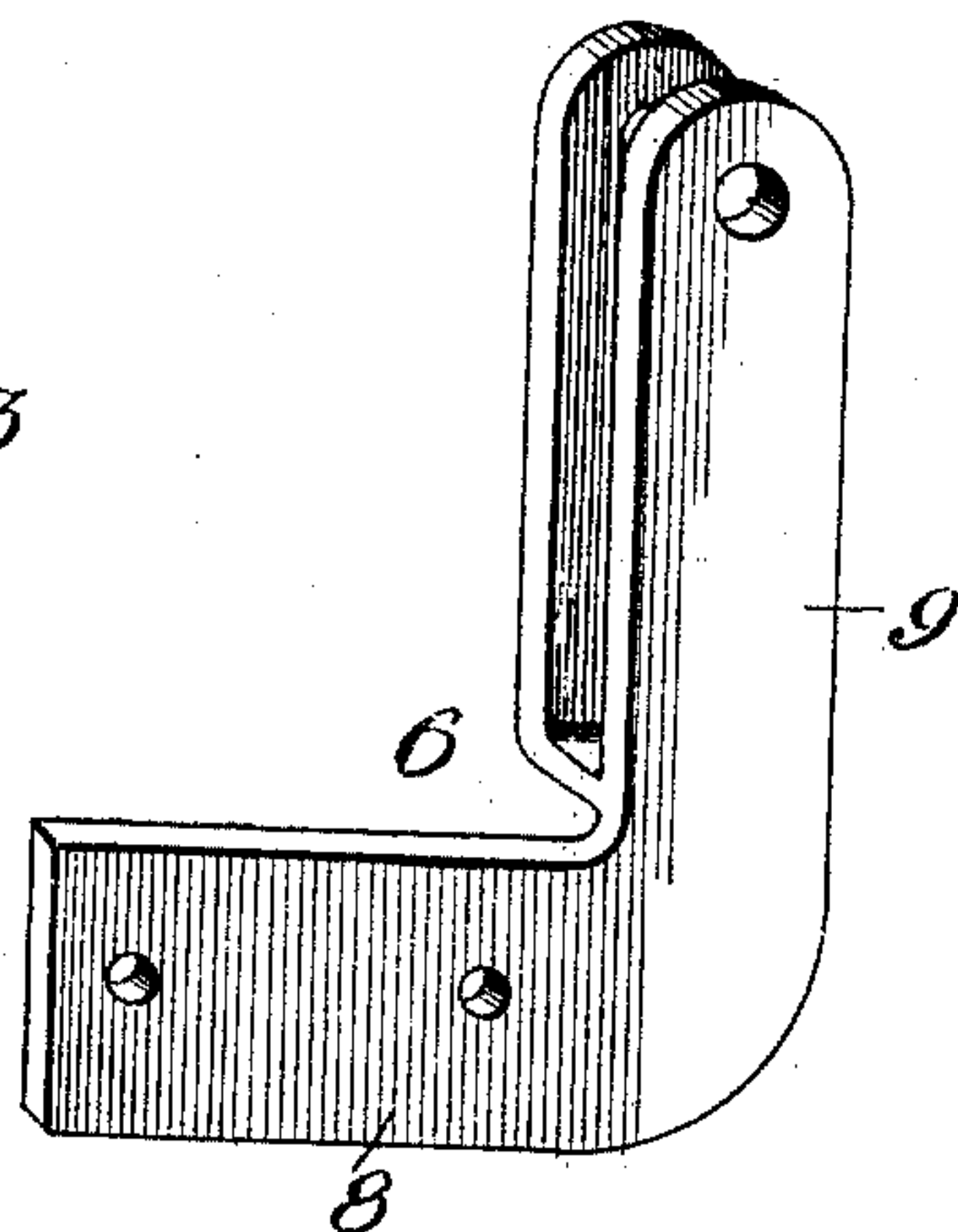
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2 SHEETS—SHEET 2.

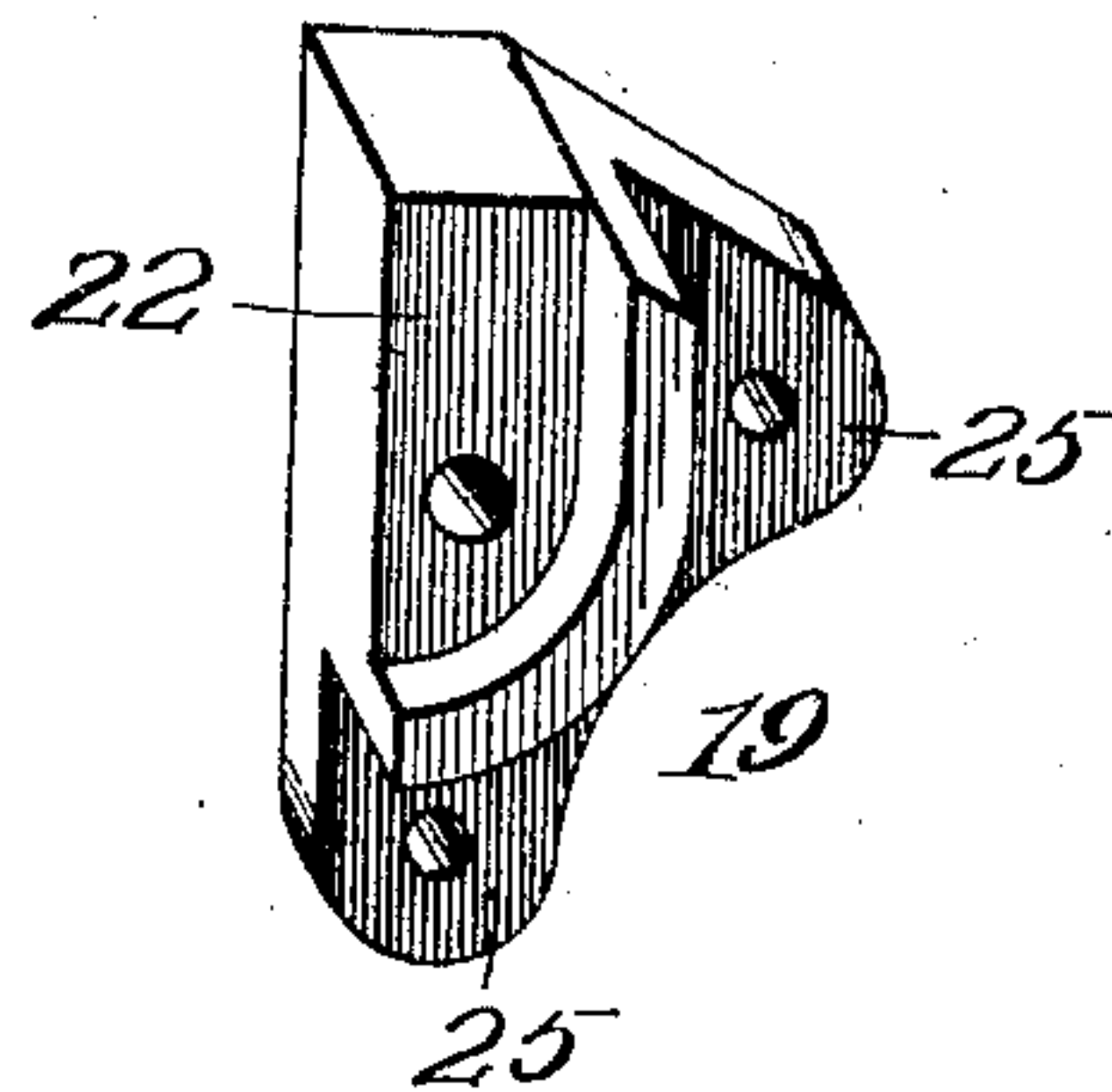
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Witnesses

James F. Brown  
M. S. Skinner.

Peter J. Schuler <sup>Inventor</sup>  
By *Watson & Coleman* <sup>Attorney</sup>



# UNITED STATES PATENT OFFICE

PETER J. SCHULER, OF PLYMOUTH, PENNSYLVANIA.

## DOOR HANGER AND TRACK.

No. 915,386.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed March 13, 1908. Serial No. 420,861.

*To all whom it may concern:*

Be it known that I, PETER J. SCHULER, a citizen of the United States, residing at Plymouth, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Door Hangers and Tracks, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in hangers and tracks especially adapted for railway cars but which may be used upon other structures.

The object of the invention is to provide suspending means for a car door or the like which will be simple, strong, durable, and comparatively inexpensive, and which will maintain the door in either its closed or its opened position and prevent it from vibrating under the jarring and motion of the car.

With the above and other objects in view, as will hereinafter appear, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a car door and the improved suspending means, a portion of the storm plate being removed; Fig. 2 is a horizontal section taken on the plane indicated by the line 2—2 in Fig. 1; Fig. 3 is a vertical section taken on the plane indicated by the line 3—3 in Fig. 1; Fig. 4 is a detail perspective of one of the door hangers; and Fig. 5 is a similar view of one of the end supporting brackets for the track.

In the drawings 1 denotes a portion of an ordinary box car or structure of any description, having a door opening 2 adapted to be closed by a horizontally sliding door 3. The latter has a rectangular body of wood composed of substantial boards suitably jointed and braced.

The hangers 6 are adapted to move upon my improved track 7 and while they may be of any suitable form and construction, I preferably make them as shown more clearly in Fig. 5 of the drawings. Each of said hangers is right angular in form and has a horizontal arm 8 projecting inwardly and secured to one of the upper corners of the door and a vertical arm 9 which is bifurcated or forked to receive the track and an anti-friction roller 10 which is suitably journaled

and adapted to engage and run upon the upper edge of the track.

My improved track 7 is substantially twice as long as the width of the door and it is composed of two similar portions, each of which has oppositely and downwardly extending inclines 11, 12 for the rollers 10 to run upon. The highest point 13 of each of said similar portions of the track is at the center of said portions and the inclines 11, 12 which extend downwardly in opposite directions from the points or crowns 13, terminate in curved seats. The extremities of the track are curved upwardly to provide stop hooks 14, 15 and its central point 16 extends upwardly and is V-shaped. For the purpose of increasing the strength of the track it is preferably made thickest at the points or crowns 13.

17, 18, 19 denote brackets arranged upon the outer face of the car for supporting the track. The central bracket 18 is vertically disposed beneath the central portion 16 of the track, which portion is secured to it by a substantial bolt or similar fastening 20. The latter, in connection with smaller bolts 21, serve to effectively secure the bracket 18 to the car. The end brackets 17, 19, as more clearly shown in Fig. 6, are formed with curved recesses or seats 22 to receive the curved or hook shaped ends 14, 15 of the track, which latter are secured in said recesses by fastenings 23 similar to the fastening 20. Smaller bolts or fastenings 24 are passed through apertured flanges 25 in the brackets 17 to secure the latter to the car.

Any suitable means may be provided for guiding the lower portion of the door and preventing it from being swung outwardly but I preferably employ the angular stop and guide brackets 26 which are arranged at suitable intervals, as clearly illustrated in Figs. 1 and 3.

In operation, it will be seen that owing to the inclines 11, 12 upon the upper edges of the two similar portions of the track, that the door will always be maintained in either its closed or its open position, since it will move by gravity to its closed position when the rollers 10 of the door hangers are upon the inclines 11, and in a similar manner to its open position when said rollers are upon the inclines 12. The rollers 10 of the two door hangers are the same distance apart as the uppermost points or crowns 13 in the two



portions of the track, so that said rollers will at all times be either upon the inclines 11 or the inclines 12, consequently the door cannot stand in a partially opened or closed position unless it is manually held or secured by extraneous fastenings. The door will be prevented from dropping off the track by the stop hooks 14 at the ends of the track. Owing to the double inclined portions of the latter it will be seen that the door cannot run or shift backward and forward when the car is bumped or jolted, consequently there will be little wear on the door and its life will be prolonged. Owing to the construction of the track and the manner in which it is mounted, it will be seen that it will be strong and durable and will not readily work loose or become damaged. When bolts are used for fastening the track and its hangers, they are preferably provided with locked nuts or their ends may be riveted to reduce the liability of the parts coming loose and interfering with the operation of the door. The peculiar construction of the track also prevents the door from being taken off or from accidentally coming off, and consequently from being lost.

Having thus described my invention what I claim is:

1. The combination of a track having two similar portions, each portion formed with tread surfaces inclined continuously in a downward and outward direction from their central points to their extremities and a door mounted to travel upon said inclined tread surfaces whereby it will be gravity actuated to either its open or closed position from any intermediate position.
2. The combination with a structure having a door opening, and a door for said opening, of a track for the door secured to the side of the structure above said opening and having two similar portions, one portion being disposed opposite the door opening and the other to one side of the same, each of said portions having downwardly and oppositely inclined tread surfaces extending from the central points of said track portions to the extremities of the latter, hangers secured to the door adjacent to the corners thereof, rollers mounted upon said hangers to run upon the tread surfaces of said track portions, said rollers being disposed the same distance

apart as the central or highest points in the inclined tread surfaces of the similar portions of the track whereby the door will be gravity actuated to either its closed or its open position from any intermediate position.

3. The combination with a structure having a door opening, a door for said opening and suitable hangers for said door, of a track bar having two similar portions integrally formed, said hangers being arranged and adapted to be mounted on the respective portions of said track, said portions each having the oppositely and downwardly inclined tread surfaces extending from the central points to the extremities of said similar track portions, and the integrally formed stop hooks at the lower ends of said inclined tread surfaces, substantially as and for the purposes set forth.

4. The combination with a structure having a door opening, a door for said opening and suitable hangers for said door, of the intermediate bracket 18 and the end brackets 17, 19 secured to the structure, of a one piece track bar secured at its center to the intermediate bracket and at its ends to said end brackets, said track bar having two similar portions, each provided with the oppositely and downwardly inclined tread surfaces 11, 12 extending from the central points to the extremities of said similar track portions and the integrally formed stop hooks at the center and extremities of said track bar, substantially as and for the purpose set forth.

5. A one piece track bar having two similar portions, each portion having tread surfaces inclined continuously in a downward and outward direction from the central points of said similar portions to the extremities of the latter.

6. A one piece track bar having two similar portions, each portion having oppositely and downwardly inclined tread surfaces extending from the central points of said similar portions to the extremities of the latter, and integrally formed stop hooks at the center and at the ends of said track bar.

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

PETER J. SCHULER.

Witnesses:

GEORGE FENDING,  
HUMPHREYS CROOKS.