

(No Model.)

G. W. HEY.
DOOR HANGER.

No. 271,981.

Patented Feb. 6, 1883.

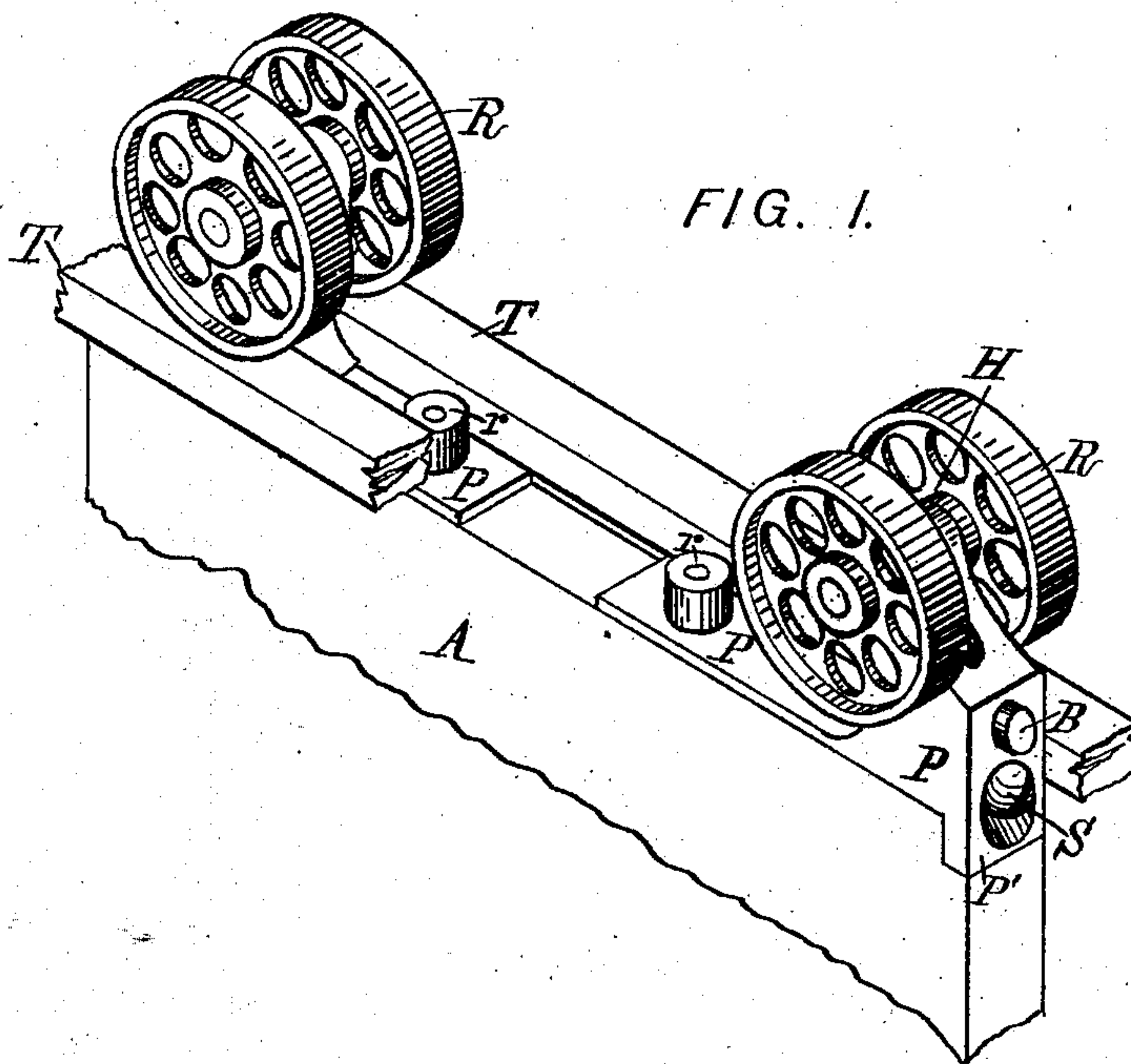


FIG. 2.

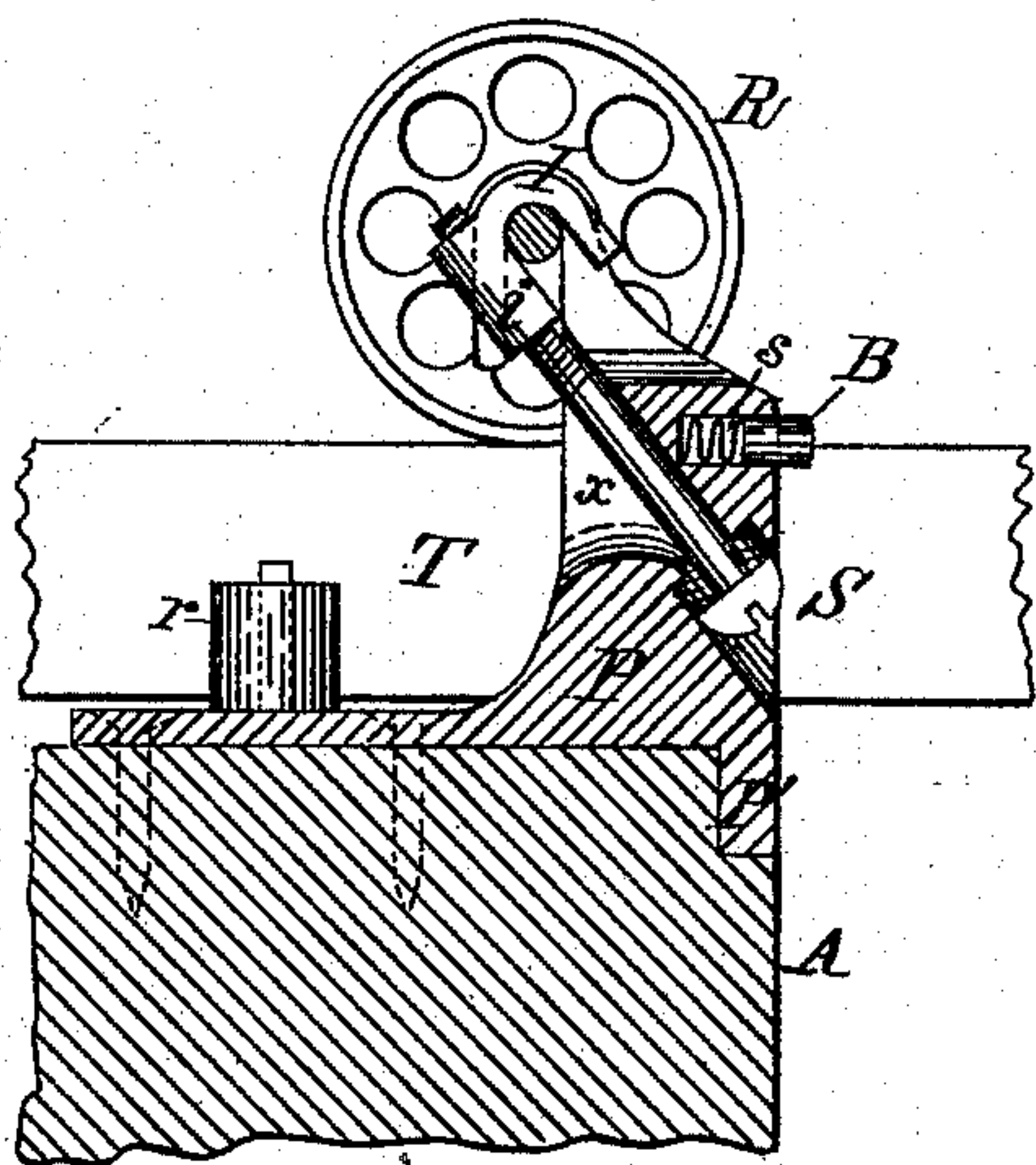


FIG. 3.

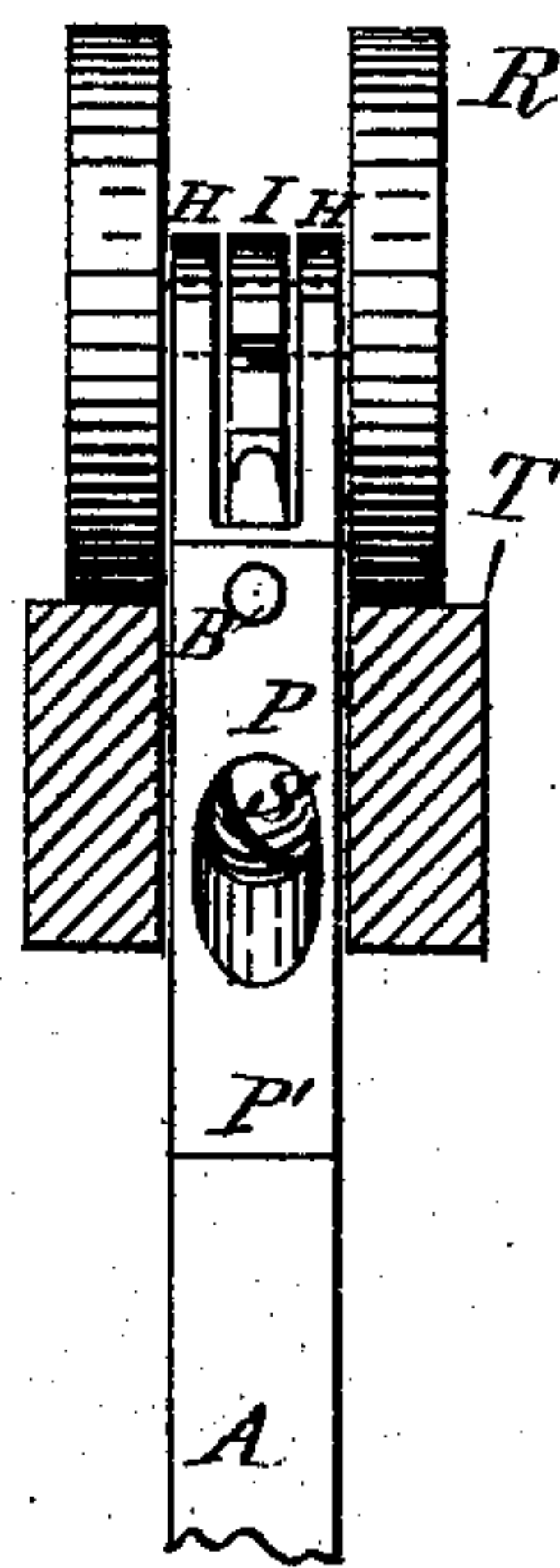
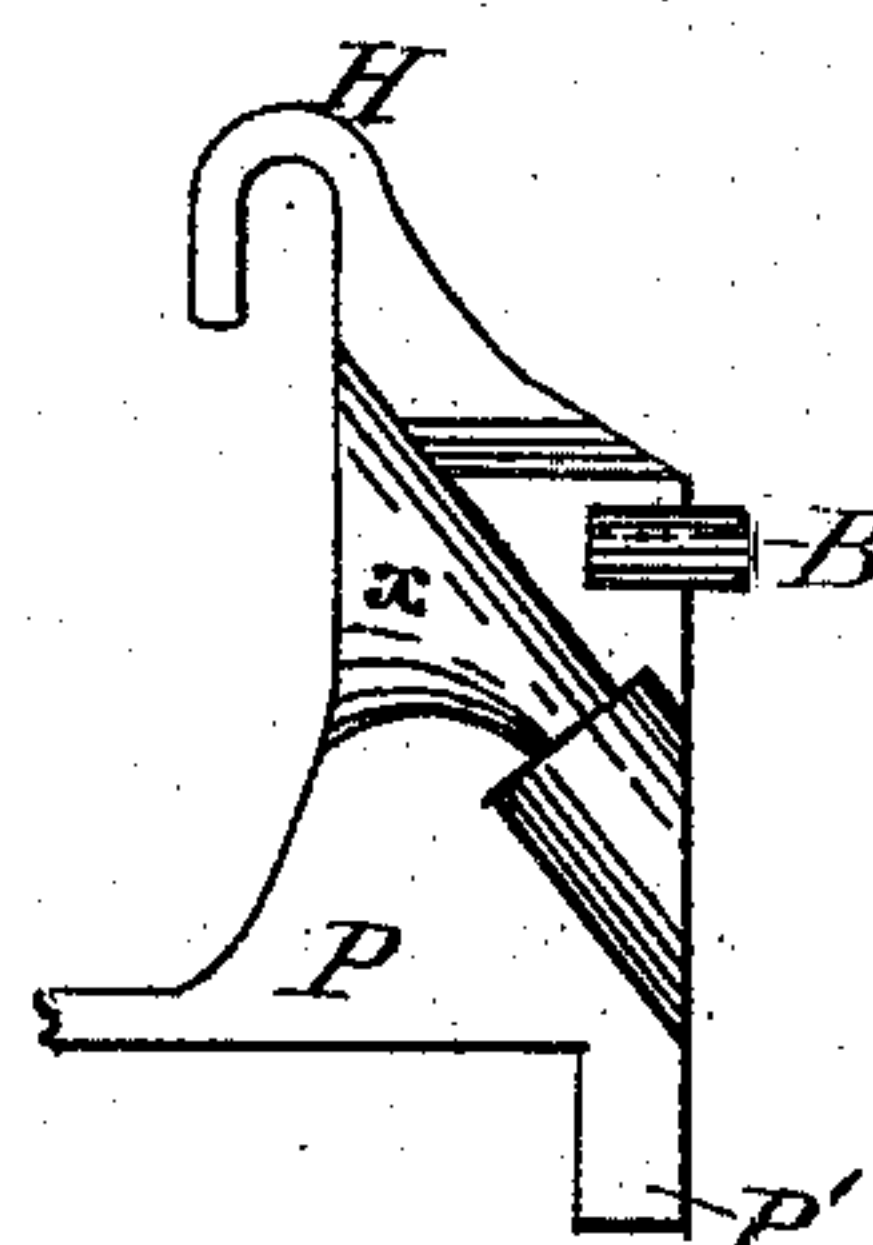


FIG. 4.



WITNESSES.

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UNITED STATES PATENT OFFICE.

GEORGE W. HEY, OF SYRACUSE, NEW YORK, ASSIGNOR OF ONE HALF TO
CHARLES H. DUELL, OF SAME PLACE.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 271,981, dated February 6, 1883.

Application filed August 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. HEY, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful
5 Improvements in Door-Hangers, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of sliding-
10 door hangers termed "anti-friction top hangers," and the object is to provide a simple and effective device which can be readily applied to sliding doors without cutting or otherwise marring the finish of the doors, and which will
15 allow for any unevenness of the rails, adjusting readily to carry the door freely and noiselessly in case of sagging or shrinking of the studding, and which will permit a vertical adjustment of the door, so as to conform to the floor or carpet
20 over which it passes.

To this end the invention consists of the novel construction and arrangement of a plate adapted to be attached to the upper edges of the door. This plate is provided with a slotted
25 or recessed frame, the upper part of which terminates in curved hooks, which pass over the axle of the carrying-rollers. A curved hook, one arm of which being threaded for the reception of a screw-bolt which passes through the front
30 edge of the plate, fits over the axle, and serves to raise or depress the door, and a yielding bumper secured in the front vertical edge of the plate operates to noiselessly check the device when it comes in contact with the stop at
35 the end of the movement of the door. A friction-roller, held on a vertical stud-pin, serves to keep the carrying-rollers on the track. All of the parts are detachably connected for convenience in packing the device for shipment,
40 all as hereinafter specifically described and claimed.

The invention is fully illustrated in the accompanying drawings, wherein Figure 1 is a perspective view of the hanger, showing the
45 device in its operative position on a sliding door. Fig. 2 is a vertical view, partly in section, showing the adjusting device, bumper, and friction-roller. Fig. 3 is an end view of the same, and Fig. 4 is a detached detail view
50 of the plate, partly in section.

Similar letters of reference indicate like parts in all the figures.

A represents a door hung with my invention.

P denotes the plate having the angular projection P'. A friction-roller, r, is secured on
the plate by a stud-pin, and serves, when plane- 55
faced rollers R are used, to keep the same on the track-rails T. The plate P carries a vertical frame provided with the interior recess, x, Fig. 2, through which the screw-bolt S passes. 60
The frame terminates in the curved hooks H H, Fig. 3. These hooks pass over the axle of the rollers R, and maintain them in position in the frame. The front edge of the plate P is recessed out for the reception of a bumper, 65
B, which serves to check the door noiselessly when it reaches the stop at the end of its movement.

The bumper may consist of a plug of any suitable material, either elastic or non-elastic. 70
If non-elastic material is used, then the plug should be attached to a spring, as shown in Fig. 2 at s; but I preferably make the plug of rubber, as shown at B, Fig. 4, in which case it is simply secured in the recess in any suitable 75
manner so as to project sufficiently to receive the shock. The screw-bolt S passes through the slotted recess x in the plate, and engages the threaded arm i of the hook I. The hook I passes over or around the axle of the carry- 80
ing-rollers R, between the hooks H H of the frame, and, in conjunction with the screw-bolts S, serves to raise or lower the door, as may be desired, so as to conform the same to the floor or carpet over which the door passes. 85

It will be observed that the door hangs on the hook I, and that the necessary side movement of the hook I and bolt S is obtained by making the recess x in the plate P of sufficient dimensions to allow free swing on the axle. 90
This side movement permits the door to hang plumb in case of sagging or unevenness of the rails or studding which supports the track-rails and allows the rollers R to bear evenly on the track notwithstanding the sagging or 95
other deflection of the rails.

The angular projection P' of the plate P serves to receive and resist the endwise strain occasioned by the collision of the bumper against the stops, which would otherwise come 100

on the screws which fasten the plate P to the upper edge of the door. If flanged carrying-rollers R, as shown in the drawings, the friction-roller *r* may be dispensed with. It is obvious that the plate P may be shortened, and the friction-roller *r* secured directly to the top of the door, the office of said roller *r* being simply to keep the plane-faced carrying-rollers R R on the track.

By constructing the plate P as shown all of the working parts are detachably connected with each other, which is a great convenience in packing the device for shipment, as the entire device occupies but little space when detached. Thus the screw-bolt *s* serves to connect all the working parts in their operative position on the track, and it affords a convenient and accessible device for adjusting the door to the desired height. Stops of the usual form can be employed, applied on the inner edge of the door, to prevent the door from running out too far in its opening, and the bottom of the door can be grooved out to move on a guide-rail secured to the floor to prevent the door from swaying out of line at the bottom.

It is obvious that the detail construction of the parts of my invention can be readily changed and modified from the example thereof shown in the drawings, and I do not therefore limit myself to the construction shown.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a sliding-door hanger, a plate attached to the upper edge of the door, having a vertical frame terminating in a curved hook passing over the axle of the rollers, in combination with the rollers and an adjusting screw-bolt, said bolt having at its upper end a hook

bearing on the axle of the rollers, substantially as shown and described.

2. In a sliding-door hanger, the combination of the plate attached to the upper edge of the door, having a frame terminating in extensions passing over the roller-axle, with a friction-roller adapted to bear against the track-rail, and an adjusting device connected at one end with the roller-axle and the other end passing through the front edge of the plate, set forth in the above first claim, substantially as specified.

3. In a sliding-door hanger, the plate attached to the upper edge of the door, having a vertical frame terminating in a curved hook passing over the axle of the roller, in combination with a yielding bumper secured in the front edge of said plate, substantially as shown and described.

4. In a sliding-door hanger, an adjusting device consisting of the combination of the hook I, threaded arm *i*, and screw-bolt S, passing through a plate, P, the hook I passing over the axle of the carrying-roller.

5. A door-hanger frame composed of the plate P, angular projection P', interior recess, *x*, and hooked vertical projections H H.

6. The within-described door-hanger, composed of the rollers R R, plate P P', hooks H H, friction-roller *r*, bumper B, hook I *i*, and screw-bolt S, all constructed and arranged substantially as shown and described.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 22d day of August, 1882.

GEORGE W. HEY. [L. S.]

Witnesses:

C. H. DUELL,

F. H. GIBBS.