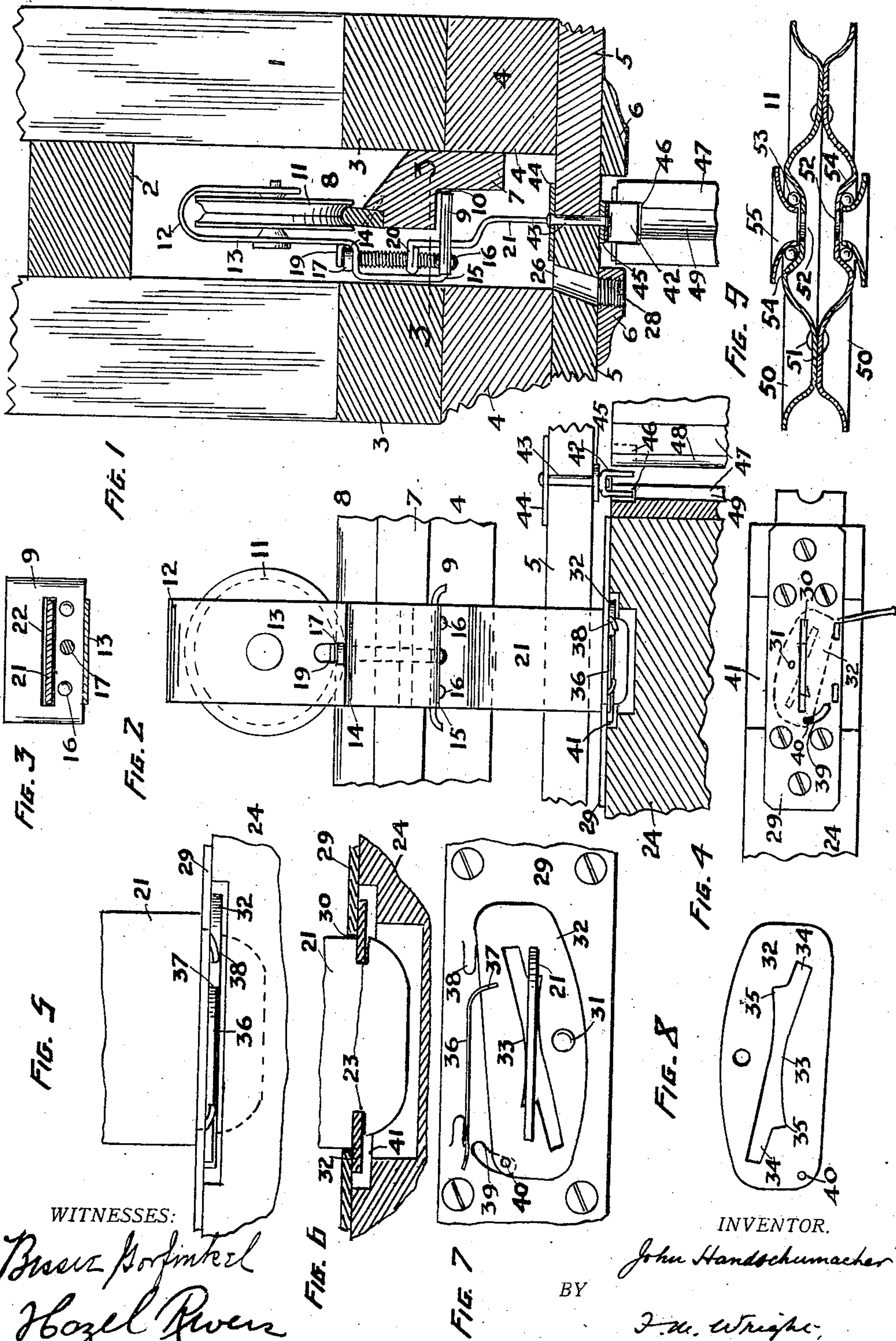


No. 855,172.

PATENTED MAY 28, 1907.

J. HANDSCHUMACHER.
DOOR HANGER AND TRACK THEREFOR.

APPLICATION FILED APR. 6, 1906.



WITNESSES:

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JOHN HANDSCHUMACHER, OF SAN FRANCISCO, CALIFORNIA.

DOOR-HANGER AND TRACK THEREFOR.

No. 855,172.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed April 6, 1906. Serial No. 310,213.

To all whom it may concern:

Be it known that I, JOHN HANDSCHUMACHER, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Door-Hangers and Tracks Therefor, of which the following is a specification.

This invention relates to improvements in door hangers and tracks therefor, the object of the invention being to provide a door hanger which can be cheaply constructed, which can be easily placed in position, which will run smoothly and without noise, which can be readily adjusted when in place and which will not easily get out of order.

In the accompanying drawing, Figure 1 is a vertical section of a portion of a door and of the hanger track therefor, the hanger itself being shown in end elevation; Fig. 2 is a side view of the hanger, the top of the door being shown in section; Fig. 3 is a horizontal section of the same on the line 3—3 of Fig. 1; Fig. 4 is a top plan view showing a portion of a door and of the plate attached thereto for securing the hanger; Fig. 5 is an enlarged view of the bottom of the hanger and a part of the door; Fig. 6 is a vertical section through said plate adjacent to the hanger; Fig. 7 is a bottom plan view of the door plate, showing the latching plate pivoted thereto; Fig. 8 is a top view of the latching plate detached; Fig. 9 is a sectional view of an improved wheel used in the hanger.

Referring to the drawing, the framing above the doorway comprises the studs 1, parting plate 2, upper header 3, lower header 4, jambs 5, and stops 6.

Secured to the upper and lower headers on one side is the track beam 7, having nailed thereon the track rail 8. The novel construction of this track has been found very useful. It comprises a beam 7 mortised on the upper inner edge to receive the rail, the sides of this mortise being slightly inclined to the vertical and horizontal, and the rail 8 itself, which is of wood, with a rounded upper edge, so that the wheel of the hanger runs thereon without any noise. At the lower inner edge the track is also mortised to permit a guard plate 9 to pass into said mortise, to limit the movement of the hanger both laterally and vertically, said guard plate, when abutting against the under surface 10 of the track beam, preventing the wheel rising from the rail. The upper outer edge is beveled or sloped from the rail to the header, the

result being that pieces of lathing or other material dropping upon the track readily fall out of the way of the wheel, down said sloping surface. Upon the rail runs the wheel 11 of the hanger; mounted in a yoke 12 formed by bending into an inverted U-shape the upper end of a hanger plate 13, said plate being bent out at right angles, as shown at 14, and then inward again at 15, and there secured by rivets 16 to the guard plate 9. Through the horizontal portions 14, 15, of the plate passes an adjusting screw 17, the head of which is held in position by a lip 19 cut out from the plate and bent downward over said head. Said screw is screwed through the flange 20 of a hanger 21, said flange being doubled back on itself to give strength, and the hanger being passed through a slot 22 in the guard plate 9. The lower end of the hanger is formed with notches 23 by means of which it is connected to the door 24. To obtain access to the screw 17 for the purpose of adjusting the hanger one of the head jambs has an aperture 26 formed there-through, and the stop below it also has a corresponding aperture, the latter being closed, when not in use, by a plug 28 screwed thereinto.

To connect the door with the hanger there is secured upon the top of the door a door plate 29 having a slot 30 through which the hanger passes, and underneath said plate and pivotally connected therewith at 31 is a latching plate 32 having therein a slot 33 which is sufficiently long to permit the hanger to pass therethrough, said slot having lateral extensions 34, forming, with the main slot, angular tongues 35 which, when the plate is turned on its pivot, can enter the notches 23 in the lower end of the hanger, and thus secure the plate to the hanger. For the purpose of so moving said plate there is provided a spring 36, which is inserted into a notch 37 in the edge of the latching plate and bears against a stop stamped out from the main plate 29. This spring moves the latching plate so as to cause the angular tongues thereof to engage the notches in the hanger. The angular movement of the latching plate is arrested by means of another stop 38 formed in like manner with the first. The latching plate can either be moved to permit the hanger to enter the slot in said plate, or can be released from the hanger, either by the bent

end of a nail passing through a curved slot 39 in the main plate and into a hole 40 formed in the latching plate, enabling it to be moved against the pressure of the spring, 5 or a nail can be inserted underneath the main plate, the upper edge of the door having a depression 41 for that purpose, said nail being pressed against the end of the latching plate to which the spring is attached, and 10 pressing it inward away from the stop. In this way the hanger can readily be attached to or detached from the door.

In order to limit the movement of the doors, there is provided a central U-shaped stop 42 15 screwed on the lower end of a bolt 43 extending between the two head jambs, and having upper and lower plates 44, 45, extending across the jambs. Upon the inner vertical edges of the doors are secured the beads 47 20 which have respectively the usual tongue 48 and groove 49 registering with each other, and at their upper end said beads are recessed, as shown at 46 to receive the stop 43, so as to permit the doors to shut close.

25 In this invention I employ an improved wheel shown in detail in Fig. 9. It consists of two halves or members 50 made out of sheet metal, each half having a central aperture 52 to receive the shaft, each member 30 extending from said aperture axially outward to form a hub portion 54 of the wheel, then axially inward to meet the other member, being there secured by the rivets 51 and then axially outward to the edge to form 35 a groove to run on the rail of the track. The axle, which is fixed in the part 12 of the wheel-supporting frame is contained in the conoidal or flaring bearings 55, also made out of sheet metal, and the wheel runs on balls 40 53 which travel on said bearings.

I claim:—

1. In combination with a door hanger, a wooden track beam having a mortise at the top of one side, a wooden rail secured to said 45 beam in said mortise, the upper edge of the rail extending above the beam, a hanger and a wheel mounted in said hanger and running upon said rail, said beam being also mortised at the lower portion of the same side, 50 and a guard plate carried by the hanger and passing into said mortise to limit the vertical and lateral movement of the hanger, substantially as described.

2. In a door hanger, the combination of a 55 wheel, a plate having a yoke in which the wheel is rotatably mounted, said plate being bent out at right angles and then inward again to form bearings, an adjusting screw passing through said bearings, and a hanger 60 proper having a flange through which the screw is screwed, substantially as described.

3. In a door hanger, the combination of a wheel, a plate having a yoke in which the wheel is rotatably mounted, said plate being 65 bent out at right angles and then inward

again to form bearings for an adjusting screw, an adjusting screw passing through said bearings, the plate having a lip cut out therefrom and bent downward over the screw to hold it 70 in position, and a hanger proper having a flange through which the screw is screwed, substantially as described.

4. In a door hanger, the combination of a wheel, a plate having a yoke in which the wheel is rotatably mounted, said plate being 75 bent out at right angles and then inward again to form bearings for an adjusting screw, an adjusting screw passing through said bearings, and a hanger proper adjustably supported on said screw, substantially as de- 80 scribed.

5. In a door hanger, the combination of a wheel, a plate having a yoke in which the wheel is rotatably mounted, said plate being bent out at right angles and then inward 85 again to form bearings for an adjusting screw, an adjusting screw passing through said bearings, a guard plate secured to the first named plate, and a hanger passing through a slot in the guard plate, and having 90 a flange through which the screw is screwed, substantially as described.

6. In combination with a door hanger, a door plate secured to the top of the door, a latching plate pivoted beneath said door 95 plate, said plates having slots through which the hanger can pass, the lower end of the hanger having notches, and the latching plate having tongues adapted when the plate is turned on its pivot to engage said notches, 100 to secure the plate to the hanger, substantially as described.

7. In combination with a door hanger, a door plate secured to the top of the door, a latching plate pivoted beneath said door 105 plate, said plates having slots through which the hanger can pass, the lower end of the hanger having notches, and the latching plate having tongues adapted when the plate is turned on its pivot to engage said notches, to 110 secure the plate to the hanger, and a spring for moving said plate, substantially as described.

8. In combination with a door hanger, a door plate secured to the top of the door, a 115 latching plate pivoted beneath said door plate, said plates having slots through which the hanger can pass, the lower end of the hanger having notches, and the latching plate having tongues adapted when the plate 120 is turned on its pivot to engage said notches, to secure the plate to the hanger, and a spring for moving said plate, the top of the door having a depression permitting an instru- 125 ment to be inserted to engage the edge of the latching plate, substantially as described.

9. In combination with a door hanger, a door plate secured to the top of the door, a latching plate pivoted beneath said door 130 plate, said plates having slots through which

the hanger can pass, the lower end of the hanger having notches, and the latching plate having tongues adapted when the plate is turned on its pivot to engage said notches, 5 to secure the plate to the hanger, and a spring for moving said plate, the door plate having a curved slot and the latching plate having an aperture beneath said slot, substantially as described.

10 10. In combination with doors having recesses cut out at the top of their meeting edges, a stop therefor comprising a U-shaped

piece, a bolt upon which said U-shaped piece is screwed, and plates in contact with the upper and lower surfaces respectively of the 15 head jambs, through which plates said bolt passes, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN HANDSCHUMACHER.

Witnesses:

BESSIE GORFINKEL,
HAZEL RIVERS.