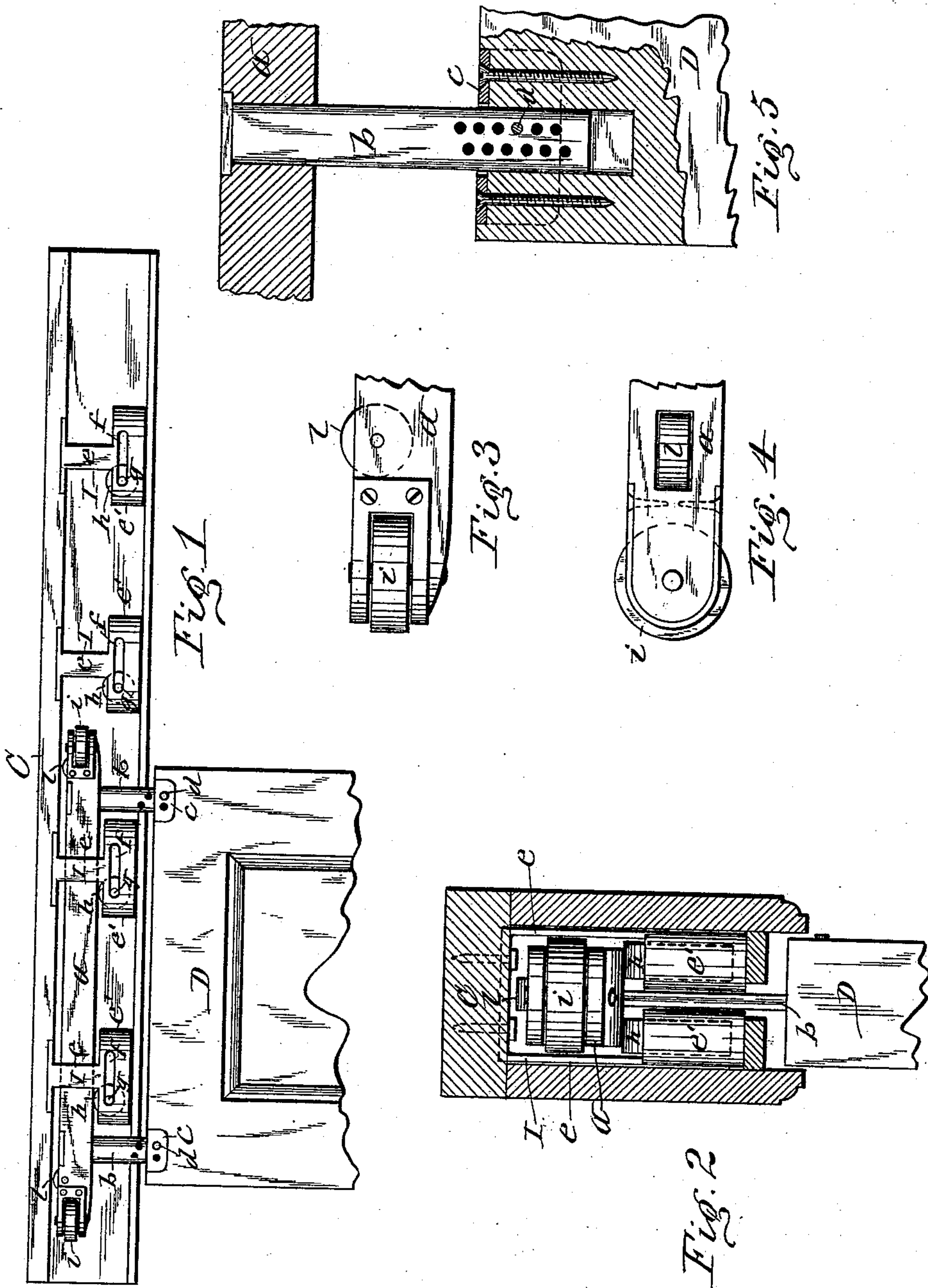


(No Model.)

W. B. CORP.
DOOR HANGER.

No. 450,003.

Patented Apr. 7, 1891.



Witnesses:

C. L. Bendixon

Mark W. Dewey

Inventor:

Willis B. Corp

By his Attorneys

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UNITED STATES PATENT OFFICE.

WILLIS B. CORP, OF SYRACUSE, NEW YORK, ASSIGNOR OF ONE-FOURTH
TO BURKE M. TAPPAN, OF SAME PLACE.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 450,003, dated April 7, 1891.

Application filed October 4, 1890. Serial No. 367,039. (No model.)

To all whom it may concern:

Be it known that I, WILLIS B. CORP, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and
5 useful 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 door-
10 hangers which carry the door suspended from overhead; and the invention consists in the novel construction and combination of parts hereinafter fully described, and set forth in the claims.

15 In the annexed drawings, Figure 1 is a side view of a door-hanger embodying my invention. Fig. 2 is an enlarged end view of the same. Figs. 3 and 4 are respectively side and top plan views of one of the end portions of
20 the rider-bar, and Fig. 5 is a detail view of the connection of the rider-bar to the door.

Similar letters of reference indicate corresponding parts.

D represents a sliding door, to the top of
25 which is secured the horizontal rider-bar *a* by means of hanger-straps *b b*, which extend vertically and straight from the top of the door at the center of the thickness thereof, so as to pass between the carrying-rollers
30 hereinafter described, and balance the door transversely. The connection of the rider-bar *a* to the door is made adjustable in its length in any suitable manner to allow the door to be adjusted to properly move over the
35 floor. One form of said adjustable connection is illustrated in Fig. 5 of the drawings, and consists of a metal strap *b*, provided in its lower portion with a series of perforations at different points of its length and rigidly
40 secured at its upper end to the end of the rider-bar. Said strap passes through a stay-plate *c*, fixed to the top of the door, and down into the door, and a pin *d* passes transversely through the door and through one of the per-
45 forations of the strap *b*. The aforesaid stay-plate *c* is provided with a downwardly-projecting flange, which is perforated for the reception of the coupling-pin *d*.

50 C represents a board which is secured horizontally and stationary to the wall or partition over the doorway and parallel with the

line of travel of the door. To the under side of this board is firmly secured a plurality of brackets I I I I, each of which is formed with pendent arms *e e* at opposite sides of the
55 aforesaid line of travel, and each of said arms terminates with two horizontally-elongated plates *e' e'*, which are provided with horizontal slots *f f* in one and the same horizontal plane. In the slots of the two plates *e' e'* of each arm
60 *e* is a journal *g*, and to said journal is fastened a roller *h*. Each of the aforesaid brackets I has thus connected to it two such rollers disposed at opposite sides of the line of travel of the door, and each of said rollers
65 is journaled individually and supported independent of the other rollers and at a sufficient distance from the opposite roller to leave a space between them for the passage of the hanger-straps *b b*, which are suspended
70 from the rollers by means of the rider-bar *a* riding upon the peripheries of the rollers, said brackets being distributed lengthwise over the line of travel of the door.

In order to properly guide the rider-bar *a*
75 in its travel between the arms of the brackets I I, I pivot vertically to each end of the rider-bar central of the width thereof a sheave *i*, whose diameter is greater than the width of the rider-bar, and thus prevents frictional
80 contact of said rider-bar with the arms *e e* of the brackets.

To the top of the rider-bar *a* I pivot transversely rollers *l l*, which have their tops in proximity to the under side of the board C,
85 and thus prevent the door being lifted in the operation of opening and closing the same.

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

90 1. A door-hanger comprising a plurality of rollers disposed at opposite sides of the line of travel of the door and each of said rollers supported separately and independently of the opposite roller, hanger-straps extending from
95 the top of the door and between the rollers at opposite sides of the line of travel, and a rider-bar attached to said straps and riding on the aforesaid rollers, as set forth.

2. In combination with the door, a plural-
100 ity of stationary brackets distributed lengthwise over the line of travel of the door and

provided with pendent arms at opposite sides of said line of travel, rollers connected to said arms, and a horizontal bar connected to the top of the door and riding on the aforesaid rollers, substantially as described and shown.

3. In combination with the door, a plurality of stationary brackets distributed lengthwise over the line of travel of the door and each of said brackets formed with pendent arms at opposite sides of said line of travel and with two horizontally-elongated plates on the lower end of each of said arms and provided with horizontal slots in said plates, a journal in the slots of each of said pairs of plates, rollers on the journals, and a horizontal bar connected to the top of the door and riding on the said rollers, substantially as described and shown.

4. In combination with the door, a plurality of stationary brackets distributed lengthwise over the line of travel of the door, and each of said brackets formed with pendent arms at opposite sides of said line of travel,

rollers connected to said arms, a horizontal bar connected to the top of the door and riding on said rollers, and anti-friction rollers mounted horizontally in the ends of said bar, substantially as and for the purpose set forth.

5. In combination with the door, a board secured horizontally and stationary over the doorway and parallel with the line of travel of the door, a plurality of brackets secured to said board and each of said brackets formed with pendent arms at opposite sides of the aforesaid line of travel, rollers connected to said arms, a rider-bar connected to the top of the door and riding on said rollers, and a roller pivoted transversely to the top of the rider-bar and in proximity to the aforesaid board, substantially as described and shown.

In testimony whereof I have hereunto signed my name this 1st day of October, 1890.

WILLIS B. CORP. [L. S.]

Witnesses:

MARK W. DEWEY,
C. L. BENDIXON.