

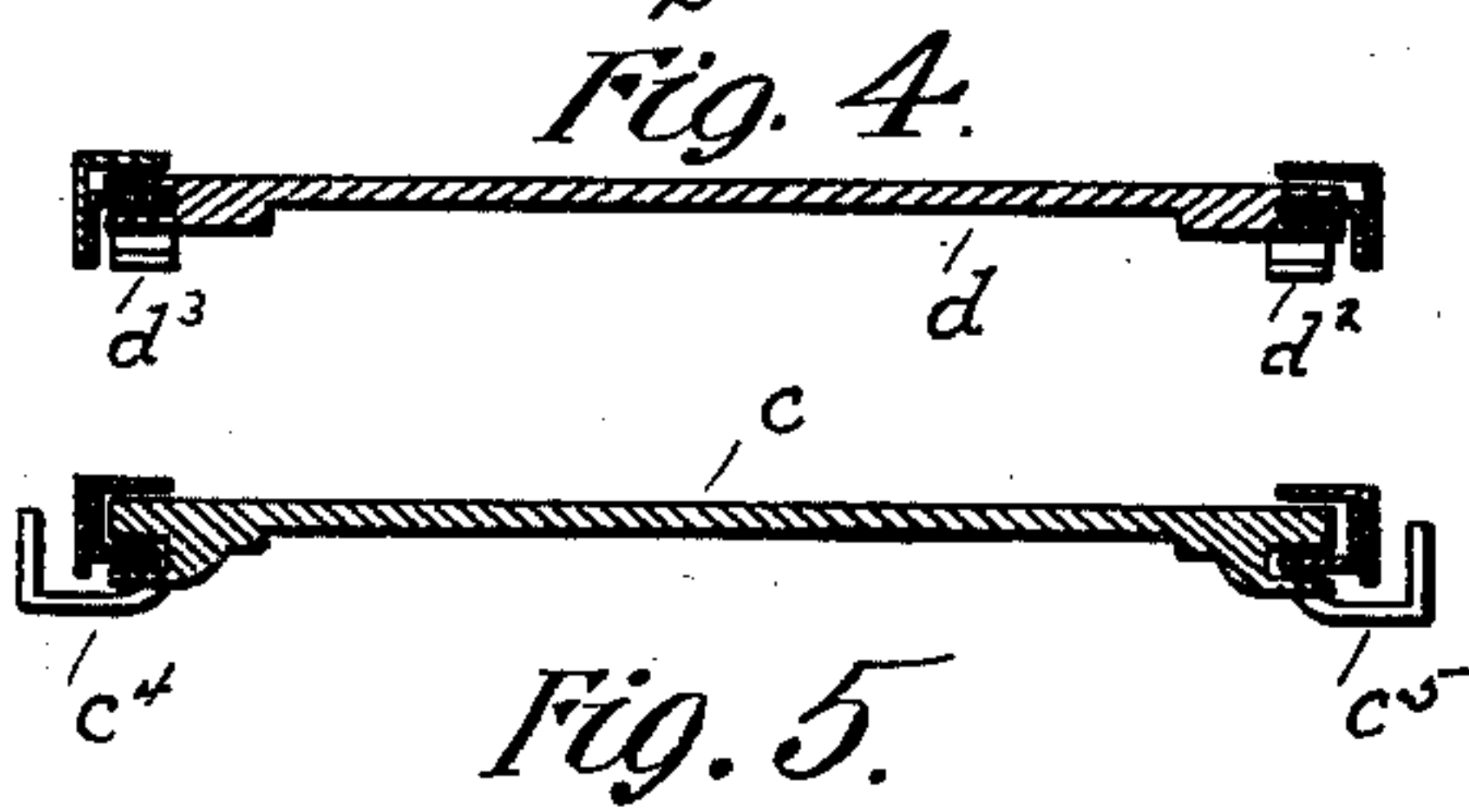
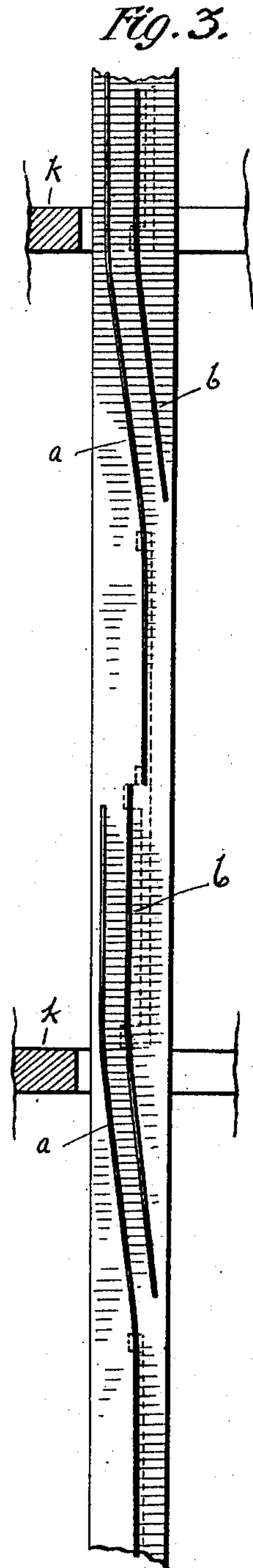
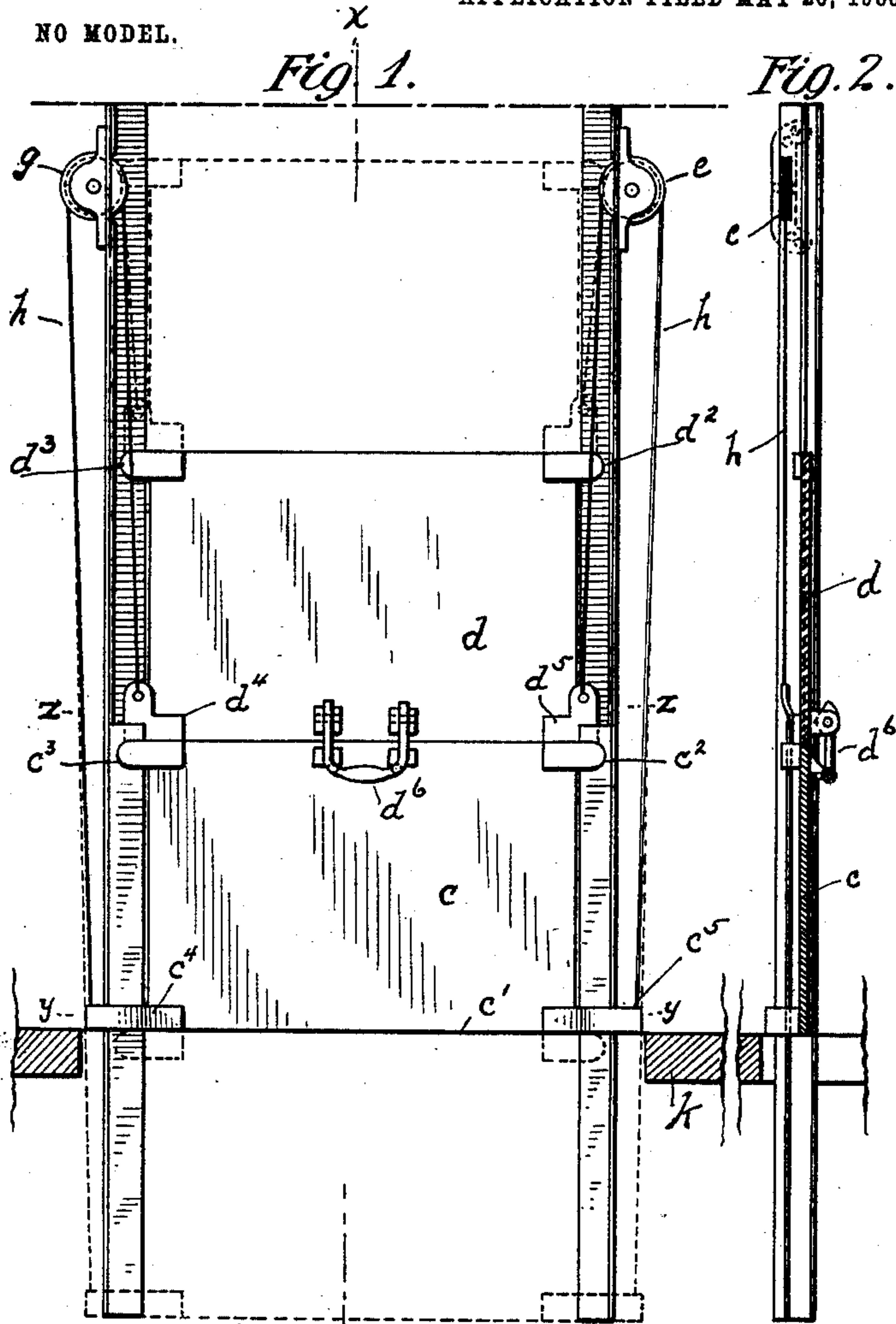
No. 756,524.

PATENTED APR. 5, 1904.

J. RASHKIN.  
DOOR FOR ELEVATOR WELLS.

APPLICATION FILED MAY 26, 1903.

NO MODEL.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JOSEPH RASHKIN, OF NEW YORK, N. Y.

## DOOR FOR ELEVATOR-WELLS.

SPECIFICATION forming part of Letters Patent No. 756,524, dated April 5, 1904.

Application filed May 26, 1903. Serial No. 158,780. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH RASHKIN, a subject of the Czar of Russia, and a resident of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Doors for Elevator-Wells, of which the following is a specification.

My invention relates to improvements in doors for elevator-wells in which the sections of the door slide vertically.

The object of my invention is to provide a simple and secure means for closing the entrance to elevator-wells in buildings.

In the drawings, Figure 1 is an elevation of my device, showing the doors and elevator-well partly in section. Fig. 2 is a sectional view on the line  $x x$  in Fig. 1. Fig. 3 is a view of the track on which the door-sections slide, the tracks on one side only of the well being shown. Fig. 4 is a sectional view on the line  $z z$ . Fig. 5 is a sectional view on the line  $y y$ .

Similar letters refer to similar parts throughout the several views.

At each side of the entrance to an elevator-well at each floor I attach two tracks  $a$  and  $b$ . The upper end section of each of the lower tracks  $b$  between the top of the floor and the upper end of the track is straight and vertical, and the lower end section of each track  $b$  is bent or inclined to one side of the vertical plane of the upper end section of the same track. The lower end sections of each of the upper tracks  $a$  is straight and vertical, and the upper end sections of each of the upper tracks is bent or inclined to the other side of the vertical plane of the lower end section of the same track.

My improved device may be used in buildings where there is a comparatively small space between the floors, as the doors from one floor will be thus turned out of the vertical plane of the doors above and below.

The lower track  $b$  extends from below the floor to the height of the lower door  $c$  above the floor, and the lower end of the upper track  $a$  is at one side of and on a line with the upper end of the track  $b$  and is continued upward a distance sufficient to allow free passage through

the doorway. The tracks may extend to or above the ceiling. The track  $b$  should be extended below the floor a sufficient distance to enable the upper edge  $c'$  of the door  $c$  to fall completely below the floor of the building.

I prefer to form my doors  $c$  and  $d$  of sheet metal or other non-inflammable material. To each side edge of the door  $c$  I attach projections  $c^2$ ,  $c^3$ ,  $c^4$ , and  $c^5$ . To each side of the door  $d$  I attach projections  $d^2$ ,  $d^3$ ,  $d^4$ , and  $d^5$ . I form grooves on the ends of these projections to fit over the tracks  $a$  and  $b$ , respectively. In order that the doors may not pass the desired point at which the entrance to the well is closed, I cause the doors to slide on separate tracks. The grooves therefore in the projections  $c^2$ ,  $c^3$ ,  $c^4$ , and  $c^5$  on the lower door  $c$  will be formed at one side of the perpendicular center and the grooves in the projections  $d^2$ ,  $d^3$ ,  $d^4$ , and  $d^5$  on the upper door  $d$  will be formed on the other side of the perpendicular center, so that while the grooves run on their respective tracks the outer face of the two doors will be perfectly alined. In the side of each entrance to the elevator-well at or near the ceiling I attach pulleys  $e$  and  $g$ . To the lower projections  $d^4$  and  $d^5$ , respectively, I attach cables  $h h$ . These cables are passed from the lower projections  $d^4$  and  $d^5$  on the upper door  $d$  over the pulleys  $e$  and  $g$ , respectively, and down to the lower projections  $c^4$  and  $c^5$ , respectively, on the lower door  $c$ , where they are attached. I form grooves on the outer face of the upper projections  $d^2$  and  $d^3$  on the door  $d$  and on the outer face of the upper projections  $c^2$  and  $c^3$ , which grooves fit over the tracks  $a$  and  $b$ , respectively, to guide the doors.

The operation of my device is as follows: When the elevator-car reaches a floor  $k$ , which is closed by my device, the lower edge  $c'$  of the lower door  $c$  is brought on a line with the floor  $k$  of the building, the upper door  $d$  resting upon the lower door  $c$ . The operator will raise the door  $d$  by means of the projection  $d^6$  or in any other desired manner and by means of the connecting-cables  $h h$  will thereby permit the lower door  $c$  to fall by its own weight below the floor  $f$ . The doors are weighted so that they will counterbalance and may be moved with ease. A catch may



be provided for fastening the doors together, as shown at  $d^6$ . As there is frequently but little space in the elevator-wells, I find it desirable to so cut the upper projections  $d^2$   $d^3$  of the upper door  $d$  that they will pass the pulleys  $e$  and  $g$ , respectively.

Having thus described my invention, what I claim is—

In a device of the type set forth, the combination with a series of pairs of vertically-slidable doors arranged one above the other the doors of each pair adapted to counterbalance, means connecting the doors of each pair of the series for simultaneously actuating the same, rotatable means supporting the actuating means, and pairs of tracks arranged to be engaged by the upper and lower doors of an upper pair and a lower pair of the series of doors respectively, the pair for the upper

door comprising two tracks having their upper portions parallel, said tracks having an angular set-off portion, and one of the tracks being extended downwardly from the set-off portion thereof substantially vertically to a point adjacent the inner track of the lower pair, and the lower pair of tracks being similarly constructed and arranged, and having the upper vertical portion of the inner one lying adjacent and to one side of the said lower extended portion of the upper track, substantially as and for the purpose set forth.

Signed at New York, in the county of New York and State of New York, this 21st day of May, A. D. 1903.

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Witnesses:

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