

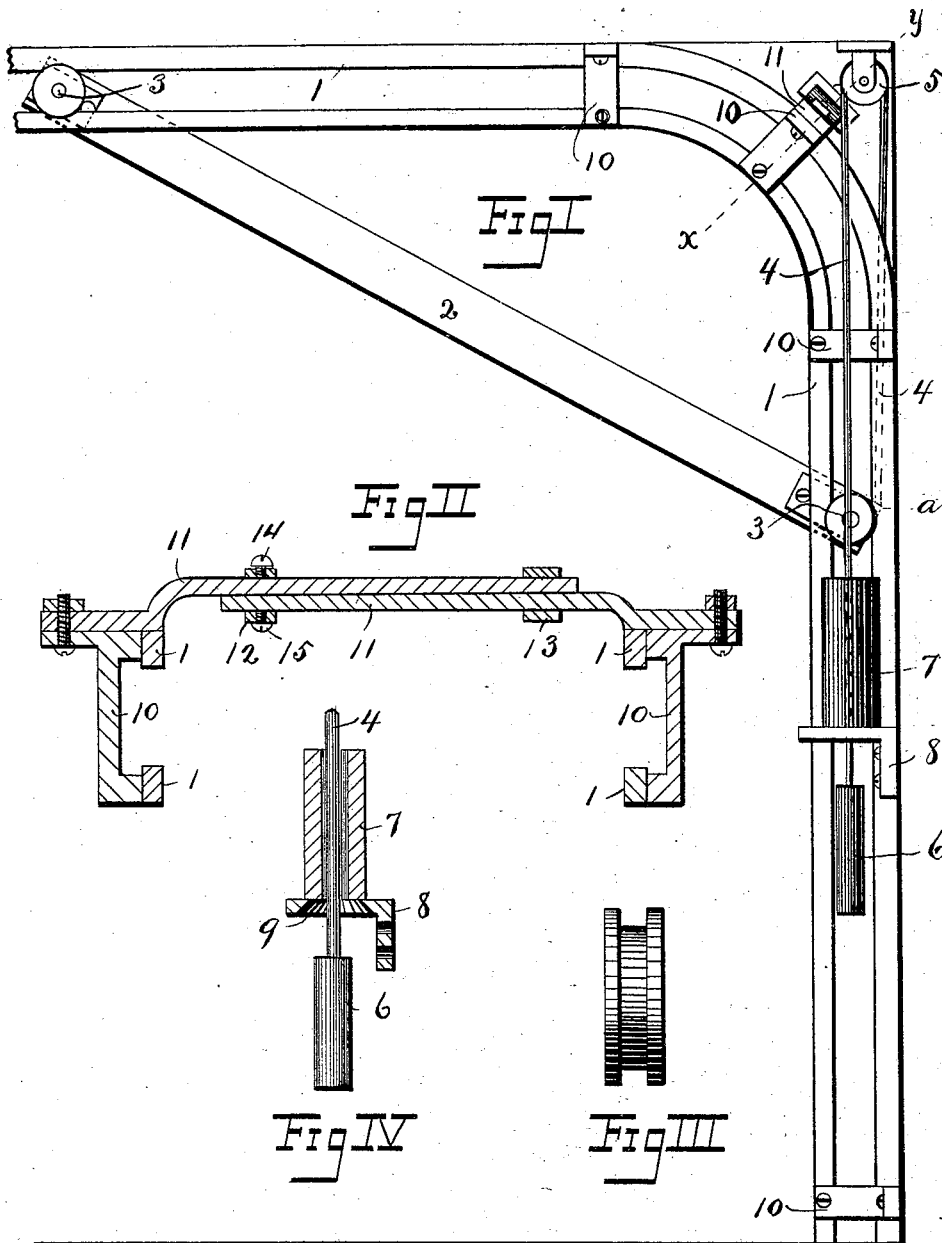
(No Model.)

2 Sheets—Sheet 1.

L. HENDERSHOTT.
SLIDING DOOR.

No. 494,142.

Patented Mar. 28, 1893.



WITNESSES:
No. C. Morrow
R. C. House

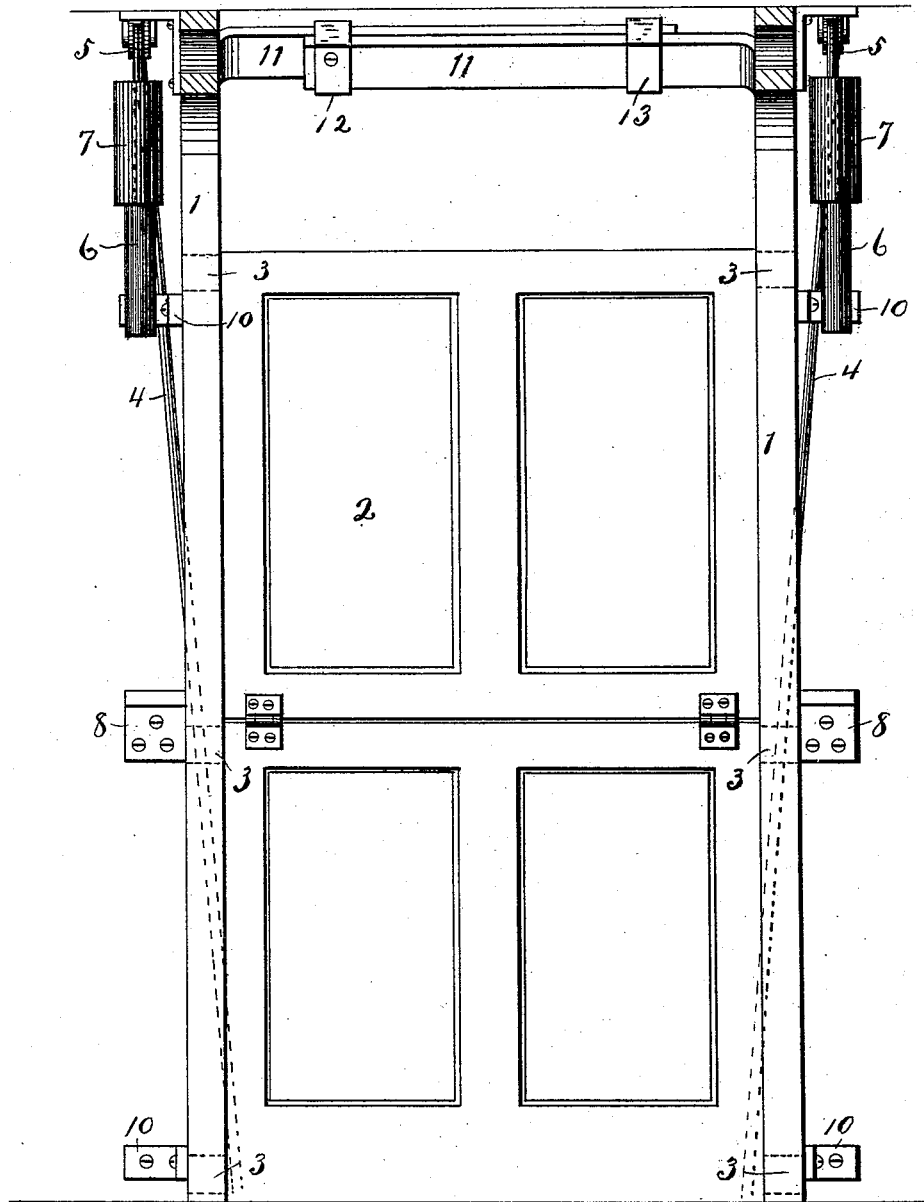
INVENTOR
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BY
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FIG V



WITNESSES:
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UNITED STATES PATENT OFFICE.

LOWELL HENDERSHOTT, OF KANSAS CITY, MISSOURI.

SLIDING DOOR.

SPECIFICATION forming part of Letters Patent No. 494,142, dated March 28, 1893.

Application filed July 21, 1890. Serial No. 359,466. (No model.)

To all whom it may concern:

Be it known that I, LOWELL HENDERSHOTT, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Sliding Doors, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of my invention is to provide a door, with a guide frame adjustable as to width and having a series of transverse plates extending from one guide rail toward similar plates extending from the opposite rail and means for locking together the free ends of opposite plates.

In the accompanying drawings, wherein I have illustrated my invention, similar numerals and letters of reference indicate similar parts.

Figure 1 represents a side elevation of one form of my invention. This view shows the sliding door as being partially raised. Fig. 2 represents a sectional view of the track or guide frames taken at $x-y$ in Fig. 1, and also illustrates the means by which the track is held in place, where it would otherwise be unsupported. Fig. 3 represents in elevation, a roller such as may be used to reduce friction in the working parts. Fig. 4 represents, in section, the counter balancing weights and supporting bracket. Fig. 5 represents a rear elevation of one form of my invention, partially in section, and having a portion broken away.

1—1 are the guides in which the door 2 slides. Projections 3 on the corners of the door serve to keep the door in the guides 1—1. The roller shown in Fig. 3 may be used to reduce the friction between the projections 3 on the door and the track 1—1.

Attached to the lower end of the door at a is a rope, 4, which passes over a pulley 5 fastened to the ceiling. At the other end of the rope, 4, is a counter balance weight, 6, equal in weight to about one half the weight of the door, 2. A supplementary weight 7 has an opening, centrally located, through which rope 4 is adapted to pass, but not large enough to allow the passage of the other counterbalancing weight. The bracket 8 has an opening 9 large enough to permit weight 6 to pass, but

too small to permit the passage of the weight 7. Instead of the track 1—1 being, on each side composed of two rails as shown in the drawings, it may be made of U iron, in which case the plates 10 will not be used. The plates 10 serve to fasten the track to the wall and ceiling, and to preserve the proper distance between the rails of the track.

In Fig. 2 11—11 are transverse plates, having a sliding connection with each other, and adapted to be clamped together by means of the clamps 12 and 13 and set screws 14 and 15. One end of each plate 11 is rigidly secured to the rails 1—1, through the intermediacy of the plates 10. This construction allows the securing of the track in position for any desired width of door, and also serves to retain the rigidity of the track or guide at a point where it is not fastened to the wall or ceiling.

The operation of my invention is as follows: When the door is raised the weights 6 and 7 lower, the weight 6 passing through the opening 9 in the support 8. After the door has been raised so that a portion of the weight of the door 2 rests upon the horizontal rails 1—1, the larger weight 7 comes to rest upon the support 8, and thus preserves the balance between the door and the counterbalances. Conversely, when the door is lowered, the weight 6 raises, and passing through the opening in the support 8 comes in contact with the weight 7 and raises it, preventing a too rapid descent of the door.

I have shown a modification of my invention in Fig. 5. In this construction the door 2 is divided, and is preferably provided with guides or projections at the point of division. In this instance the guides are placed on the upper end of the lower half of the door, and a hinge connection is made between the two parts of the door. It is obvious that if desired, this hinge connection may be dispensed with, in which case the upper and lower parts of the door must be separately guided within the guide rails 1—1.

The object of using a divided door, as shown in Fig. 5, is to prevent the occupying so much space in the room, as would be used with a single or undivided door, the divided door following more closely the direction of the guides 1—1.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

5 The combination with a sliding door, of a guide frame provided with an adjustable clamping mechanism consisting of a series of transverse plates secured at one end to a guide rail and extending toward similar plates secured to the opposite guide rail and means,

for locking together the free ends of opposite plates substantially as described. 10

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

LOWELL HENDERSHOTT.

Witnesses:

J. W. NORTHCUTT,
LESLIE E. BAIRD.