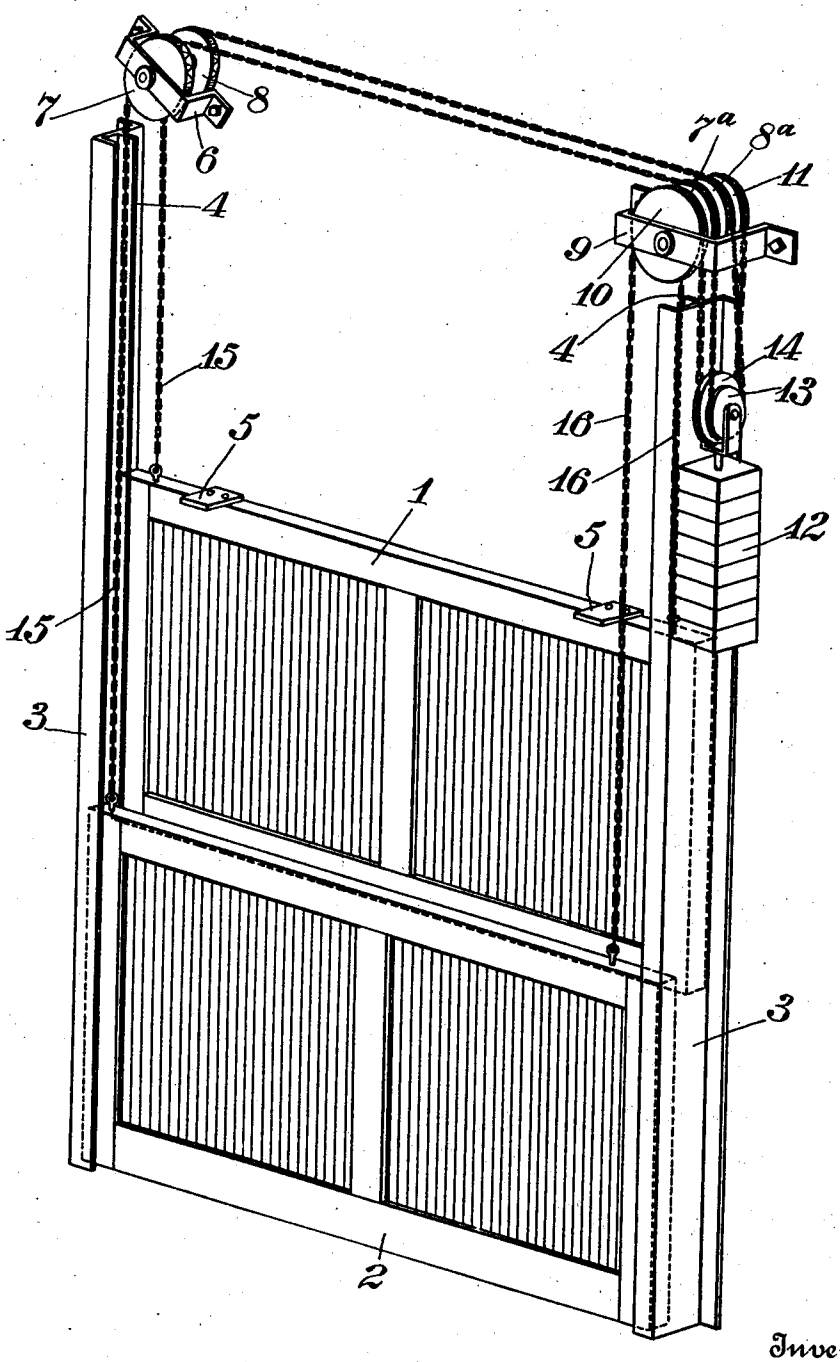
A. RUSH.

SLIDING DOOR.

APPLICATION FILED MAY 28, 1917.

1,332,956. Patented Mar. 9, 1920.



Inventor

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UNITED STATES PATENT OFFICE.

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SLIDING DOOR.

1,332,956. Specification of Letters Patent. Patented Mar. 9, 1920.

Application filed May 28, 1917. Serial No. 171,481.

To all whom it may concern:

Be it known that I, ALBERT RUSH, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Sliding Doors, of which the following is a specification.

The object of this invention is to provide a door, shutter or window composed of several sliding sections with a single counterbalancing means so that either section alone or both together may be moved in either direction.

The invention is embodied in the example herein shown and described, the feature of novelty being pointed out in the claim appended hereto.

In the accompanying drawing the single view illustrates in isometric perspective a pair of vertically sliding door sections equipped with the invention.

In the view the characters 1 and 2 designate the upper and lower sections respectively of a vertically sliding door. These sections work independently in two grooves of a suitable frame 3 containing a parting strip 4. The two sections in the position shown in the drawing are assumed to cover an opening in the wall of a building, said opening being about equal to the combined area of the sections. The upper section 1 is furnished at its upper edge with stops 5 to be engaged by the upper edge of the lower section when the latter section is raised so that the two sections may thereafter be raised together when the entire opening is to be exposed.

Mounted in a suitable bracket 6 above the left hand corners of the door sections are pulleys 7 and 8 and mounted in a suitable bracket 9 above the right hand corners of those sections are pulleys 7^a and 8^a and pulleys 10 and 11. The pulleys 7^a and 8^a are preferably in horizontal line with the pulleys 7 and 8 while the pulleys 10 and 11 flank the pulleys 7^a and 8^a on the shaft. All these pulleys are loose or turn independently of one another.

The character 12 designates a weight of ample gravity to so far counterbalance the sections as to hold them or either of them where placed vertically. Carried with the weight 12 at its upper end are two loose pulleys 13 and 14, that designated 13 being shown as of smaller diameter than the former. Such difference in diameter, however, is not necessary.

Connected with the upper left hand corners respectively of the sections 1 and 2 are the opposite ends of a single chain, cord or other flexible member 15 which extends from those corners up around the pulleys 7 and 8 and 7^a and 8^a and thence down in loop form around the weight pulley 13; and connected with the upper right hand corners respectively of the sections 1 and 2 are the opposite ends of a single chain, cord or other flexible member 16 that extends up around the pulleys 10 and 11 and thence down in loop form around the weight pulley 14. When either section is raised or lowered the corresponding portions of both flexible members are raised or lowered and the loops around the weight pulley lengthened or shortened with respect to the pulleys above as the case may be by the equal feeding to or withdrawal from the loop at one side only thereby causing the weight pulleys to turn. When both the sections are raised or lowered simultaneously the loops about the weight are lengthened or shortened by feeding or withdrawal of all the flexible members equally together. In this operation the weight, of course moves without any turning of the weight pulleys.

What I claim is:

In combination with two parallelly sliding sections, a flexible member having its ends connected with the sections, a second flexible member also having its ends connected with the sections, a single counterbalancing weight for the two sections, means for guiding the loops of the two flexible members to said single weight, and means on said weight to receive the loops of said flexible members and permit the independent travel of the flexible members thereunder.

ALBERT RUSH.