No. 840,732. PATENTED JAN. 8, 1907.

A. E. W. WYETH.

ROLLER SUPPORT FOR EDGEWISE MOVABLE DOORS AND TRACKS THEREFOR.

APPLICATION FILED JAN. 15, 1906.

Fig. 1.

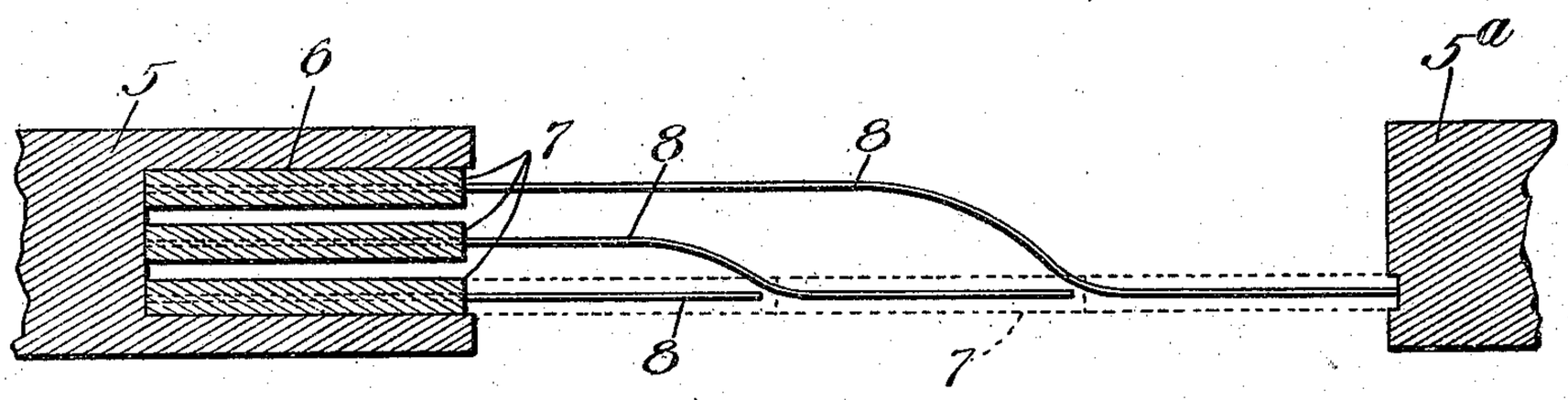


Fig. 2.

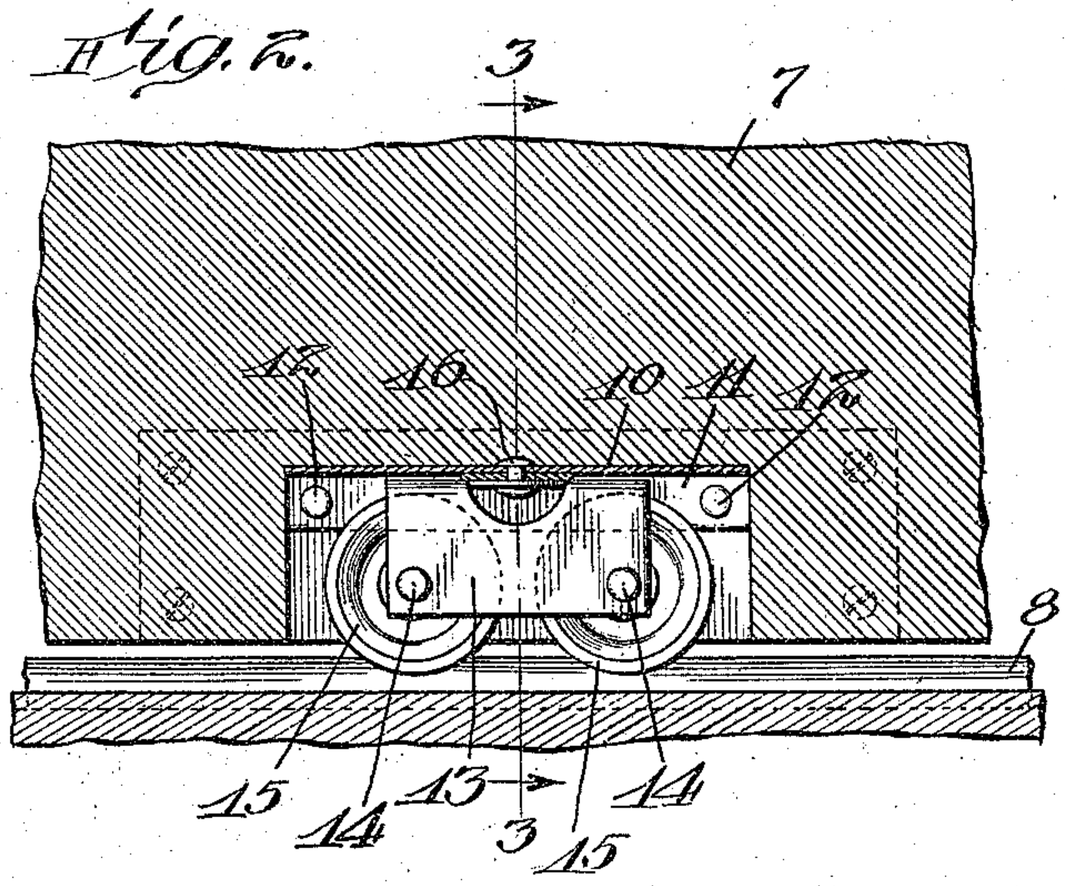


Fig. 3.

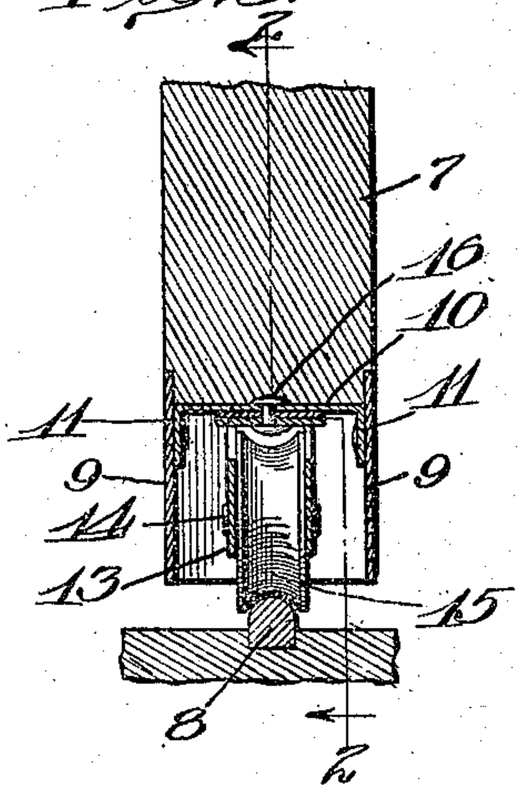
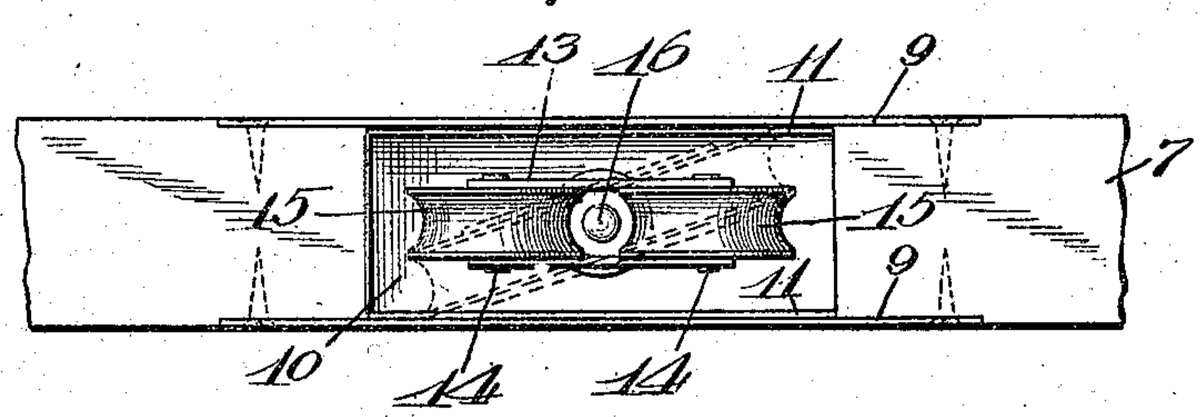


Fig. 4.



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ALBERT E. W. WYETH, OF NEW YORK, N. Y.

ROLLER-SUPPORT FOR EDGEWISE-MOVABLE DOORS AND TRACKS THEREFOR.

No. 840,732. Specification of Letters Patent. Patented Jan. 8, 1907.

Application filed January 15, 1906. Serial No. 296,180.

To all whom it may concern:

Be it known that I, ALBERT E. W. WYETH, a citizen of the United States, residing at New York, borough of Brooklyn, in the county of Kings, State of New York, have invented certain new and useful Improvements in Roller-Supports for Edgewise-Movable Doors and Tracks Therefor, of which the following is a full and complete specification, reference being had to the accompanying drawings.

In many large buildings—such as in churches, schools, and the like—it is desirable to have between adjoining rooms a very wide doorway which is too wide to make it practicable to employ a single door, and hence a plurality of doors are used, such doors in some constructions being hinged together and in other constructions a number of independent doors being employed.

My invention relates to the latter class and to the kind that are adapted when not in use for closing the doorway to be arranged side by side in a pocket and adapted to be run out from that pocket one after the other and by means of suitably-curved tracks adapted to be brought into alinement. Such doors have heretofore in some instances been run into and out of the pocket by means of overhead trolley-wheels suitably connected with the doors and traveling on curved overhead tracks. It is more advantageous, however, in many instances that these large heavy doors be supported by and run upon wheels that travel upon track-rails sunk in or laid upon the floor and at the same time have such wheels so attached to the door free to turn laterally when the door is being run over a curved portion of the track.

It is the object of this invention to provide an improved construction for attaining this end, which object is accomplished by the devices and combinations of devices shown in the drawings and hereinafter specifically described.

That which I believe to be new will be pointed out in the claim.

In the accompanying drawings, Figure 1 is a horizontal section through a number of sliding doors to which my improvements are applied, the doors being arranged side by side within a pocket, and showing also the several tracks upon which the doors are respectively adapted to move. Fig. 2 is a vertical section taken at the line 2 2 of Fig. 3, showing my improvements applied to a door. Fig. 3 is a section taken at line 3 3 of Fig. 2. Fig. 4 is a bottom view of a portion of a door provided with my improvements.

In the several figures of the drawings, in which corresponding parts are indicated by the same reference characters, 5 indicates the wall at one side of a doorway, in which is formed a pocket 6 wide enough to receive side by side a number of doors 7 required to close the doorway between the wall 5 and the opposite portion 5^a of the wall.

8 indicates the tracks upon which the wheels with which the doors are equipped travel, said tracks, with the exception of one, which is straight, being each curved, so as to bring a portion of each track in line with a portion of the other tracks, so that the doors when in place in the doorway will be properly alined edge to edge. Constructing the tracks to accomplish this of course necessitates a curve in each one of them with the exception of one, and to prevent any binding or friction at such curved portions I provide the means about to be described for attaching the carrying-wheels to the bottom of the door.

9 9 and 10 indicate a metal frame, the parts indicated by 9 9 being metal plates and the part indicated by 10 being a plate connecting the side plates 9 together. In the construction shown this plate 10 has its edges turned down at right angles to form flanges 11, which rest against the inner faces of the plates 9, through which flanges and plates suitable rivets 12 pass to hold the plates together. As clearly shown in Fig. 4 and as indicated by the dotted lines in Fig. 2, the cross-plate 10 is considerably shorter than the side plates 9, such side plates projecting beyond the cross-plate 10 at both ends, and, as clearly shown in Fig. 3 and as indicated in Fig. 2, such cross-plate 10 lies a short distance below the upper edges of the side plates 9. In applying the frame to a door, therefore, the bottom of the door is to be cut away transversely just sufficiently to provide a recess into which the plate 10 can project, the depth of such recess being just sufficient to bring the lower edges of the side plates 9 in line with the lower edge of the door, and such side plates 9 are then to be secured to the door by screws passing through them near their ends, as clearly indicated by dotted lines in Fig. 2.

It is evident from the foregoing that the weight of the door will come upon the top

plate 10 of the frame 9 9 10 and that by making the recess in the bottom of the door just long enough to receive the said plate 10 and extending the side plates 9 considerably beyond the ends of such plate 10 a firm hold for the attaching-screws that pass through the plates 9 is afforded, and the recess will be hidden from view by these plates when the door is in use. I prefer to cut out the sides of the door at each end of the recess to the thickness of the plates 9, as shown in Fig. 3, so that the outer surfaces of such plates 9 will be flush with the surfaces of the door.

13 indicates a wheel-frame, which in the form of construction shown is formed of a single piece bent to have two parallel vertical portions connected by a horizontal upper portion, between the depending parallel portions of which frame are secured axles 14, upon which are mounted wheels 15, adapted to run upon the tracks 8. The upper horizontal portion of the wheel-frame 13 is pivotally connected by a suitable pivot 16 to the cross-plate 10, thus forming a swivel connection with the wheel-frame that permits it to turn as required when the wheels 15 strike the curve in the track. In the construction shown a washer is interposed between the under face of the plate 10 and the face of the horizontal part of the frame 13, and to secure a wider bearing at the central pivoted portion a portion of the material of the sides of the frame 13 is cut out and struck up, as shown. In practice it will be found best to provide each door with two sets of these swiveled truck-frames, one near each edge of the door.

It will of course be necessary to provide suitable means at the top of the door for affording lateral support; but I have not shown any such means, as various devices may be resorted to for that purpose, and such devices form no part of my present invention.

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

The combination with a door provided with a recess in its lower edge, extending transversely entirely through the door, and a frame comprising two side plates adapted to extend across and cover the marginal edges of said recess and be attached to the faces of the door and a substantially U-shaped bridge-plate having its side portions connected to said side plates and fitting within said recess, of a wheel-frame of less width than the recess, a swiveling connection between said wheel-frame and said bridge-plate, and wheels mounted in said frame, the axes of the wheels and the axis of the frame arranged at substantially right angles to each other, substantially as described.

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