

A. VANDERVELD.
SUPPORT FOR DISAPPEARING DOORS.
APPLICATION FILED AUG. 5, 1909.

974,542.

Patented Nov. 1, 1910.

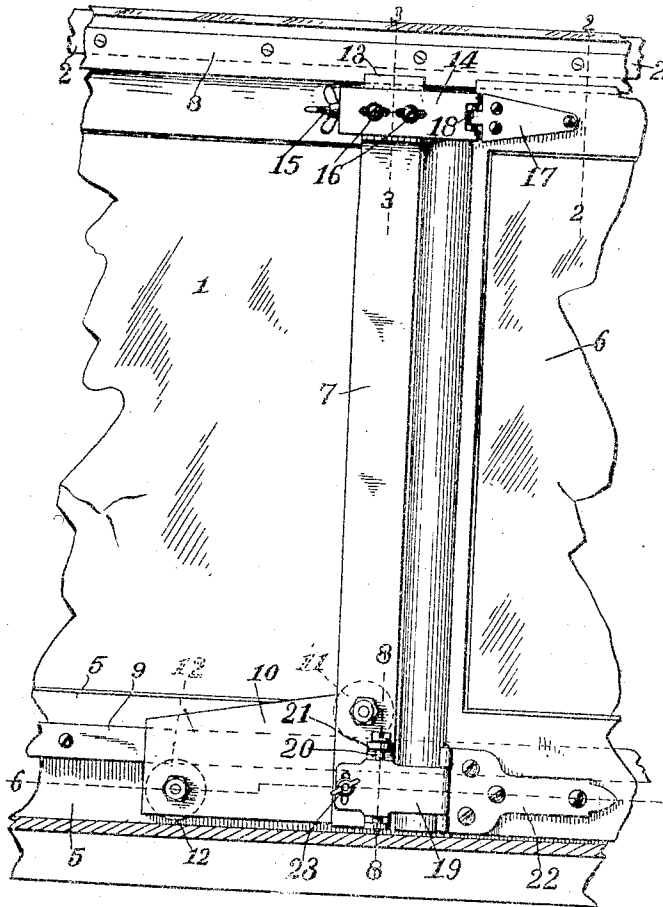


FIG. 1.

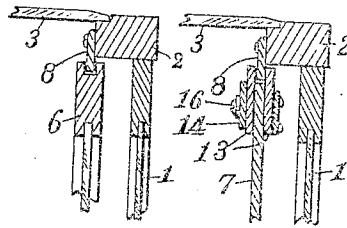


FIG. 2. FIG. 3.

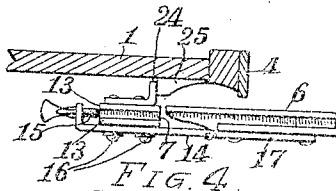


FIG. 4.

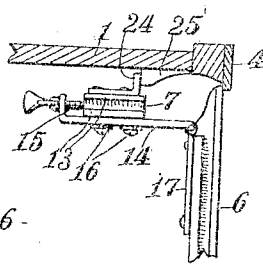


FIG. 5.

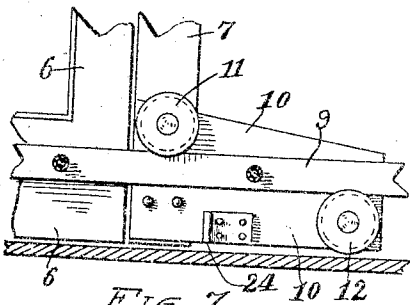


FIG. 7.

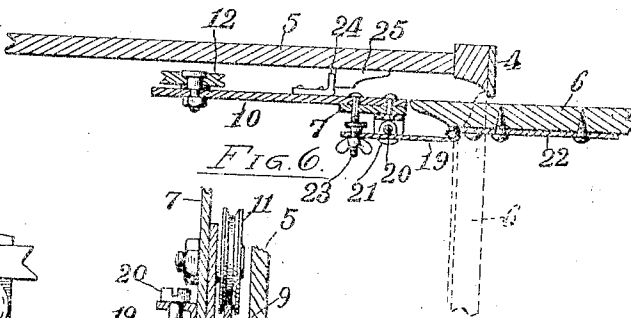


FIG. 6.

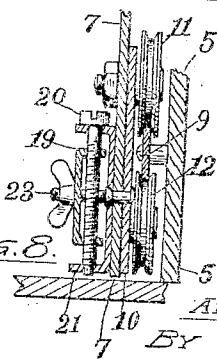


FIG. 8.

Witnesses
H. C. Van Antwerp
Georgia Chace

Inventor
ANTHONY VANDERVELD
BY Luther V. Inoué
Attorney

UNITED STATES PATENT OFFICE.

ANTHONY VANDERVELD, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO GRAND RAPIDS SHOW CASE COMPANY, OF GRAND RAPIDS, MICHIGAN, A CORPORATION OF MICHIGAN.

SUPPORT FOR DISAPPEARING DOORS.

974,542.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ANTHONY VANDERVELD, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Supports for Disappearing Doors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in supports for disappearing doors for show cases and other like structures, and its object is to provide the same with various new and useful features whereby the door is adjustably supported and guided in its movements, and it consists essentially of the various novel features of construction and arrangement, hereinafter more fully described and particularly pointed out in the claims, reference being had to the accompanying drawings in which:

Figure 1 is an elevation of a device embodying my invention with parts broken away; Fig. 2 a vertical sectional detail on the line 2—2 of Fig. 1; Fig. 3 the same on the line 3—3 of Fig. 1; Fig. 4 a plan view of a portion of the device; Fig. 5 the same with the door in closed position; Fig. 6 a horizontal section on the line 6—6 of Fig. 1; Fig. 7 a detail in elevation showing the opposite side to that shown in Fig. 1; and, Fig. 8 an enlarged vertical sectional detail on the line 8—8 of Fig. 1.

Like numbers refer to like parts in all of the figures.

1 represents the end of a show case; 2 the top rail of the same; 3 the top plate of the case; 4 a pilaster at the front of the case; 5 the base rail at the end of the case; 6 a disappearing door for the case adapted to turn at right angles to its closed position and run back edgewise into the case; 7 a vertically disposed movable stile which carries the door; 8 a guide strip secured to the top rail of the case and projecting downward therefrom at its lower edge to guide the stile, and also to engage a groove in the upper edge of the door and guide the same when run back into the case; 9 a track spaced apart from the base rail 5 and supported thereby; 10 a rearwardly projecting plate rigidly secured to the stile 7 and movable close to the face of

the track. Grooved rollers are provided on one side of the plate and stile and in the plane of the track to traverse the track and carry the stile and door. The roller 11 traverses the upper edge of the track 9 and is located opposite the stile 7 to support the same. The roller 12 traverses the under side of the track 9 and is located near the inner end of the plate 10 to support the stile 7 in vertical position.

The upper end of the stile 7 traverses directly beneath the guide strip 8 and is slightly thicker than the same. Plates 13 are secured to the stile by bolts 16 to slidably embrace the strip 8 and thus support and guide the stile 7. An upper hinge member 14 is adjustably secured by the bolts 16 to the inner surface of the inner plate 13, and the inner end of said hinge member is turned at right angles behind the stile 7 and provided with an adjusting screw 15 which takes the outward strain of the weight of the door and adjusts the said hinge member horizontally to adjust the upper end of the door toward and from the stile, so that when the door is opened out the groove in its upper edge will adjust accurately in line with the guide strip to receive the same without binding. The other hinge member 17 is secured to the door and the joint of this upper hinge is provided with a vertical clearance as at 18, whereby the member 17 is vertically adjustable relative to the member 14, as the lower hinge is vertically adjusted as hereinafter described. The hinge member 19 at the bottom of the door is mounted in a yoke 21 attached to the stile 7, and is vertically adjustable therein by means of a screw 20 on which screw it is also adjustable about a vertical axis, by means of a clamping bolt 23 extending through a vertical slot therein to bring the bottom of the door sidewise of the stile in proper position in the front of the case when the door is closed. The other members of this lower hinge are pivoted to each other and secured to the bottom of the door in the usual way.

By turning the screw 20 the door is vertically adjusted to properly receive the guide 8 in the groove at the top of the door, and also to avoid binding of the door at the top or bottom when closed.

By means of the described construction, the door is thus quickly and easily adjusted in all necessary directions, and can thus be

brought into correct relation to the guides and the case, whereby it will move freely and close properly.

- To limit the outward movement of the door to the proper position to close against the inner edge of the pilaster 4, a projection 24 is secured to the plate 10, which projection engages a stop 25 on the base 3, and thus limits the outward movement of the device to the proper position.

What I claim is:—

1. A door support comprising a movable stile, a downwardly projecting guide strip traversed by the upper end of the stile, a door pivotally supported by the stile and having a groove in the top edge to receive the guide strip, means for adjusting the top of the door toward and away from the stile and means for adjusting the door vertically.
2. A door support comprising a movable stile, a downwardly projecting guide strip traversed by the upper end of the stile, a track at one side of the stile and traversed by the lower end of the same, a door pivotally supported by the stile and having a groove to receive the guide strip, means for adjusting the door toward and away from the stile at the top and means for adjusting the door sidewise of the stile at the bottom.
3. A door support comprising a movable stile, a downwardly projecting guide strip engaged and traversed by the upper end of the stile, a track at one side of the lower end of the stile and on which the stile is movably supported, a door pivotally supported by the stile and having a top groove to receive the guide strip, means for vertically adjusting the door, means for adjusting the top of the door toward and away from the stile, and means for adjusting the bottom of the door sidewise.

4. A door support, comprising an upper guide strip having its lower edge projecting downward, a carrying rail, a movable stile below the guide strip, side plates embracing the said strip and attached to the stile, a rearwardly projecting plate secured to the stile, a grooved roller on the side of the stile traversing the upper edge of the rail, a grooved roller attached to the projecting end of the side of the plate and traversing the under side of the rail, a door hinged to the stile and supported thereby, said door also having a groove in its upper edge to engage and traverse the guide strip and means for adjusting the door vertically and horizontally relative to the stile and guide strip.

5. A door support, comprising a horizontally movable stile, an upper guide strip having its lower edge projecting downward, a lower supporting rail, guide plates attached to the stile and slidably embracing the guide strip, a plate attached to the stile and extending alongside the rail, a grooved roller on the side of the stile and traversing the top of the rail, a grooved roller on the side of the plate and traversing the under edge of the rail, a longitudinally and vertically adjustable hinge near the top of the stile, a vertically and laterally adjustable hinge near the bottom of the stile, means for adjusting said hinges, and a door carried by the hinges and provided with a groove in its upper edge to receive and traverse the guide strip.

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

ANTHONY VANDERVELD.

Witnesses:

PALMER A. JONES,
LUTHER V. MOULTON.