Sept. 7, 1926. 1,598,715

O. GRAY

DOOR OPERATOR

Filed May 22. 1925

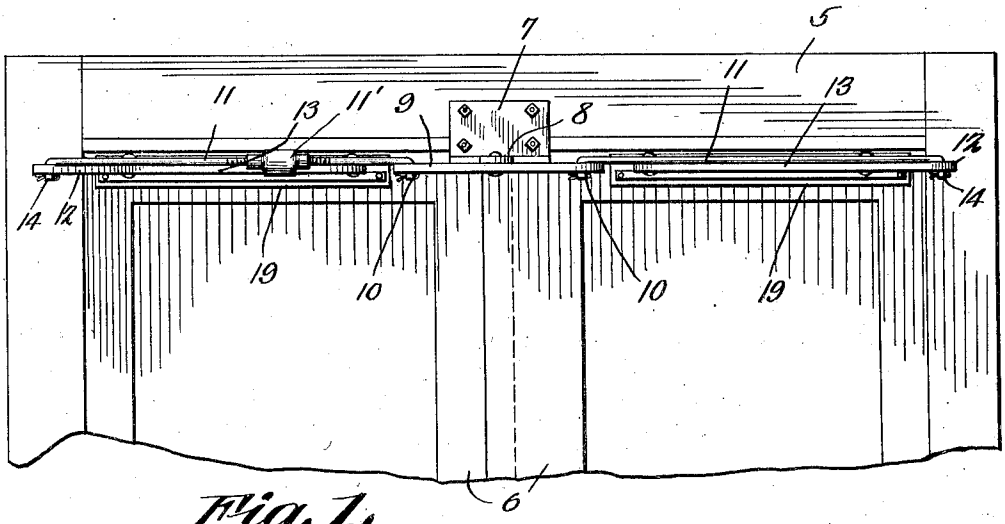


Fig. 1.

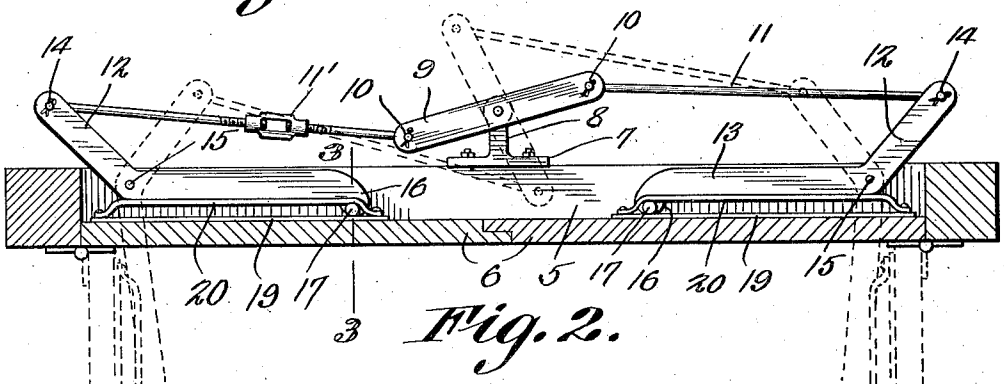


Fig. 2.

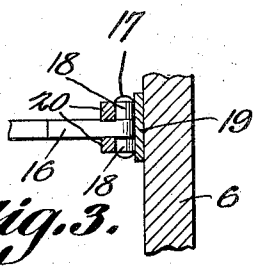


Fig. 3.

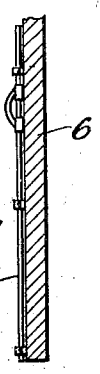


Fig. 4.

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UNITED STATES PATENT OFFICE.

OSCAR GRAY, OF EVANSVILLE, INDIANA.

DOOR OPERATOR.

Application filed May 22, 1925. Serial No. 32,160.

The present invention has reference to a device especially designed for use in connection with swinging closures such as garage doors or the like, the primary object of the invention being to provide a device for connecting a pair of swinging doors so that movement of one door will produce a relative movement of the adjacent door.

An important object of the invention is to provide a locking means whereby the doors may be swung to their open or closed positions and locked in such positions against movement, to the end that the doors may be moved to their open positions and locked in such positions against wind pressure forcing them closed.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawing:

Figure 1 is a fragmental elevational view illustrating closures equipped with a controlling device constructed in accordance with the invention.

Figure 2 is a bottom plan view of the controlling device, the door to which it is secured being shown in section.

Figure 3 is a sectional view taken on line 3—3 of Figure 2.

Figure 4 is a detail view of the locking member.

Referring to the drawing in detail, the reference character 5 indicates a door frame in which the swinging closures or doors 6 operate. Secured to the upper portion of the door frame at a point substantially centrally thereof is a plate 7 formed with a horizontally disposed arm 8 on which the arm 9 is pivotally mounted.

The ends of the arms 9 are provided with openings to accommodate the right angled ends 10 of the connecting rods 11, which rods 11 also have connection with the offset portions 12 of the arms 13 as at 14, the arms 13 however being pivotally connected to the upper beam of the door frame 5 by means of the pins 15.

A turn buckle 11′ forms a part of one of the rods 11 and is designed to adjust the sections of the rod 11 with respect to each other to regulate the movement of the closure, associated therewith.

Formed at the inner end of the arms 13 are inwardly extended portions 16 that support the pins 17 on which the rollers 18 are mounted, the rollers being designed to eliminate friction between the doors and arms 13 and permit the doors to be operated by the minimum amount of exertion on the part of the person opening or closing the doors.

Secured to the doors 6 at points adjacent to their upper ends, are the plates 19 on which the rollers 18 move, there being provided spaced bars 20 cooperating with the plates 19 and arranged in spaced relation therewith for embracing the upper portions of the rollers 18 to hold them in their proper positions on the plates 19. The usual vertical slidable locking rod 21 is secured to one of the doors so that when the doors are moved to either their open or closed positions, they may be locked in such positions by the rod 21, it being understood that the rod 21 is moved into a keeper in either the open or closed position of the doors, to hold the doors against movement.

From the foregoing it will be obvious that due to this construction a person may by moving one of the doors to its open or closed position cause the adjacent door to be moved in a similar manner and when the doors have been moved to the desired positions, they may be locked in such positions by moving the locking rod 21 to its active position.

In view of the foregoing detail description, it is believed that a further detail description as to the operation of the device is unnecessary.

I claim:—

An operator for swinging closures comprising pairs of spaced bars secured to the closures and having portions thereof arranged in spaced relation with the closures, arms pivotally mounted adjacent to the bars and having inwardly extended portions, pins

on the inwardly extended portions and adapted to engage under the spaced bars, the inwardly extended portions operating between the pairs of bars to guide the arms, an offset portion forming a part of each arm and adapted to extend rearwardly from the arms, an operating arm, and connecting rods for connecting the ends of the operating arm to the rearwardly extended offset portions of the first mentioned arms.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

OSCAR GRAY.