M. ROBERTS.

Sheave for Sliding-Doors.

No. 216,702. **Patented June 17, 1879.**

Fig. 1.

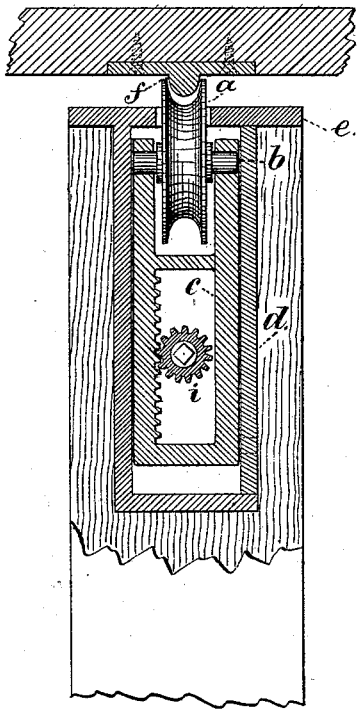


Fig. 2.

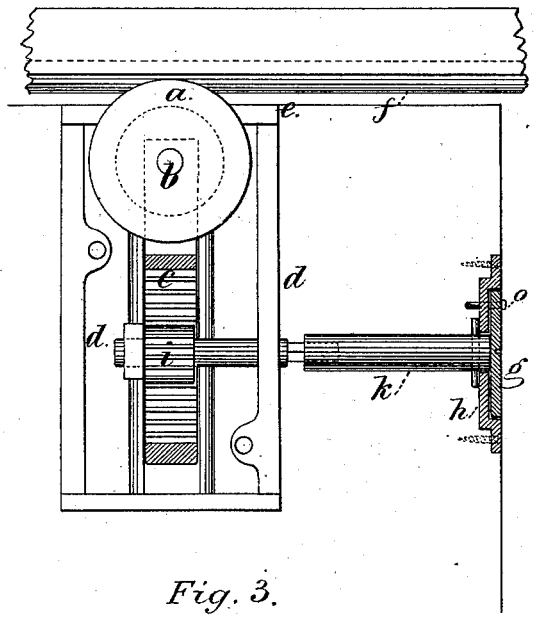
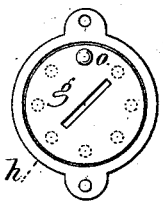


Fig. 3.



Witnesses:

Chas. H. Smith
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UNITED STATES PATENT OFFICE.

MONINGTON ROBERTS, OF WESTFIELD, NEW JERSEY.

IMPROVEMENT IN SHEAVES FOR SLIDING DOORS.

Specification forming part of Letters Patent No. **216,702**, dated June 17, 1879; application filed May 5, 1879.

To all whom it may concern:

Be it known that I, MONINGTON ROBERTS, of Westfield, in the county of Union and State of New Jersey, have invented an Improvement in Sheaves for Sliding Doors, of which the following is a specification.

Sheaves for sliding doors have been placed within a frame that can be moved by a screw, to project the sheave more or less, either at the bottom or at the top of the door, so that the door will roll freely upon the track, and also be held at the top by the sheave running against the track upon the under side of the lintel. In this case the door had to be cut away adjacent to each screw, so as to form an opening into which the fingers could be introduced for operating the screw. This defaced the sides of the door, and rendered it necessary to use cap-plates to cover up the openings, and these were unsightly.

My invention relates to the combination, with the sheave and its sliding frame, of a rack and pinion for moving the frame and sheave vertically. The shaft of this pinion is turned from the outside of the door by a small connection that is not noticeable, and I arrange the parts so that the rack-pinion is moved from the edge of the door, where it is not noticeable and the surfaces of the door are not disfigured.

In the drawings, Figure 1 is an elevation, partially in section, showing the sheave-frame and pinion. Fig. 2 is a separate view of the pinion-frame and sheave, and Fig. 3 represents the holding-disk for the pinion and shaft.

The sheave *a* is upon an axis, *b*, that is supported within the sliding frame *c*, and *d* is the metal box that is let into a mortise in the door. It is provided with a cap-plate, *e*, that is removable for the reception of the parts, and the frame *c* slides in ways that are provided for it within the box *d*.

The frame *c* is provided with rack-teeth, into which the pinion *i* gears, and the shaft of the pinion *i* is in bearings in the box *d;* and it is preferable to have the shaft and pinion in the position shown, so that the shaft may be extended to the edge of the door.

By turning the pinion *i* the frame *c* may be moved endwise, and with it the sheave or roller, so that it will rest properly upon the track *f*.

In order to hold the pinion after it has been turned, I make use of the disk *g*, with a tubular stem, *k*, passing through the plate *h*, that is countersunk for the reception of the disk *g;* and such stem *k* is made as a key, by which to turn the pinion; and there are holes in a circular range within the plate *h*, and a hole through the disk *g*.

A screw-driver, acting in a groove cut across the disk *g*, can be used to revolve the same and the pinion and adjust the sheave, and the parts are held by a pin, *o*, passed through *g* and the hole in *h* that coincides with the hole in *g*.

I claim as my invention—

1. The combination, with the sheave and its sliding frame, of rack-teeth on the frame, a pinion acting upon the same, a shaft that can be moved from the surface of the door, and mechanism for holding the shaft and pinion from turning after being adjusted, substantially as set forth.

2. The disk *g*, plate *h*, and pin *o*, in combination with the stem *k*, pinion *i*, frame *c*, and sheave *a*, substantially as and for the purposes set forth.

Signed by me this 2d day of May, A. D. 1879.

M. ROBERTS.

Witnesses:
WILLIAM G. MOTT,
GEO. T. PINCKNEY.