

J. H. TOWNSEND.
Sheave for Rolling Doors.

No. 215,993.

Patented May 27, 1879.

Fig. 1

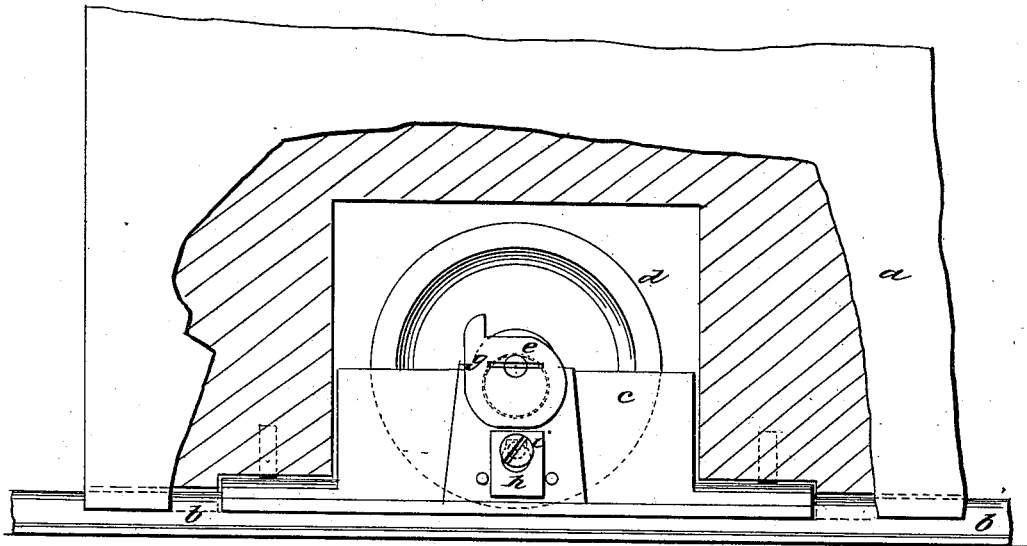


Fig. 2

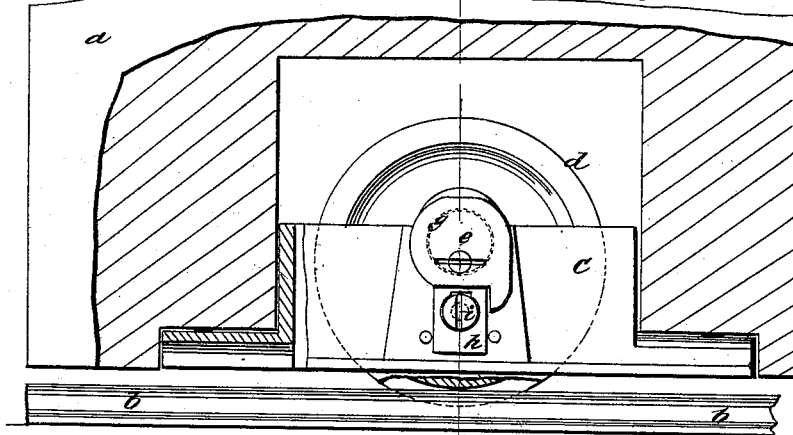


Fig. 3

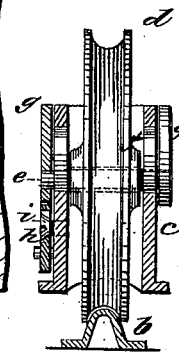
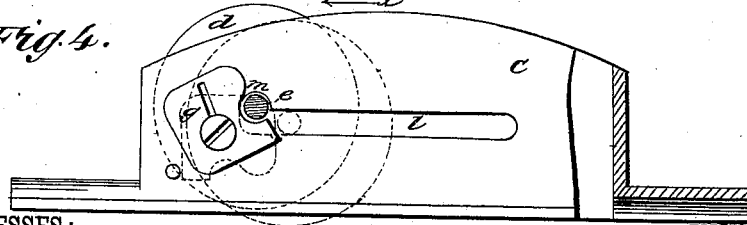


Fig. 4.



WITNESSES:

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JOSEPH H. TOWNSEND, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SHEAVES FOR ROLLING DOORS.

Specification forming part of Letters Patent No. **215,993**, dated May 27, 1879; application filed January 20, 1879.

To all whom it may concern:

Be it known that I, JOSEPH H. TOWNSEND, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Sheaves for Rolling Doors, of which the following is a specification.

Rolling doors in houses are always fitted at the bottom with sheave-rollers that run upon a track. In setting such doors they are put in place after the sheaves have been mortised in, the door being made short enough to lift the roller upon the track, and the vertical movement thus necessarily allowed to the door permits the roller to get off the track unless the door is carefully used.

The invention consists in combining, with a case, roller, and eccentric-pin, a plate and stop, as hereinafter described.

In the accompanying drawings, Figure 1 is a side view of my improved sheave applied to a door, and raised to permit of the door being put in place. Fig. 2 is a similar view with the roller in position for use. Fig. 3 is a cross-section on line *x x*.

These figures represent a common sheave wherein the roller turns on an axle.

Fig. 4 shows a roller attached to its axle with my invention applied thereto.

Similar letters of reference indicate corresponding parts.

Referring to Figs. 1 and 2, *a* represents the door, *b* the track, and *c* the roller-case, adapted to be mortised into the door, and of usual construction, except as hereinafter mentioned.

d is the roller turning on cross-pin *e*, and having its periphery grooved to fit track *b*. The pin *e* is usually passed through holes in case *c* and the ends upset to retain it in place.

I make the holes for the pin *e* larger than the pin, and form the pin where it passes through case *c* enlarged and eccentric, as at *f*. The ends of pin *e* project slightly beyond case *c*, and have a disk, *g*, secured upon the end at each side to retain the pin.

At one side of the sheave the plate or disk *g* is grooved for the application of a screw-driver to turn the plate and eccentric; and to retain the parts in place when set for rolling,

a stop, *h*, is attached beneath the plate *g* by means of a screw, *i*, that passes through a slot in *h* into case *c*. When screwed to place, the stop *h* takes against the straight edge of *g* and prevents it from turning; but when screw *i* is loosened stop *h* drops down out of the way.

The throw of eccentric *f* should be sufficient to raise the edge of roller *d* above the bottom of case *c* when plate *g* is turned for that purpose. In this position of the roller the door will be put in place; and it will be seen that the door may be made that much longer, or more closely fitted, than when the roller is down. After putting the door in place, by turning plate *g* the roller *d* will be projected beyond the case, the effect being that the door is raised and lengthened to that extent, and cannot lift during subsequent operation far enough to throw the roller from the track.

A hole is to be bored through the side of the door in a position where the plate and eccentric can be turned by inserting a screw-driver, as mentioned.

The sheave shown in Fig. 4 has the roller *d* fast upon pin or axle *e*, which turns in an aperture, *l*, in the side of case *c*, usually a long slot, to prevent rapid wear. I extend slot *l* slightly upward at one end, as at *m*, and attach a cam-acting plate, *g*, to the side of case *c*, so that by turning plate *g* it will lift the ends of axle *e* into the upward extension *m* of slot *l*, thus raising roller *e*, as shown by full lines. The other position of roller *d* is shown by dotted lines.

I do not limit myself to the exact details of construction shown and described.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

In a door-sheave, the combination, with the case *c*, roller *d*, and eccentric-pin *e*, of the plate *g* and stop *h*, substantially as and for the purpose set forth.

JOSEPH H. TOWNSEND.

Witnesses:

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C. SEDGWICK.