(No Model.)

J. J. McMILLAN.

SLIDING DOOR SHEAVE.

No. 345,314. Patented July 13, 1886.

FIG. 1.

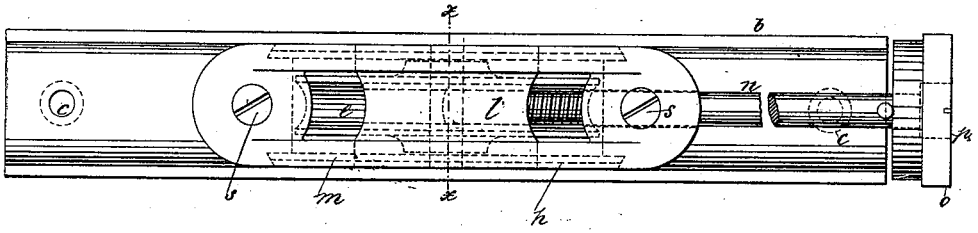


FIG. 2.

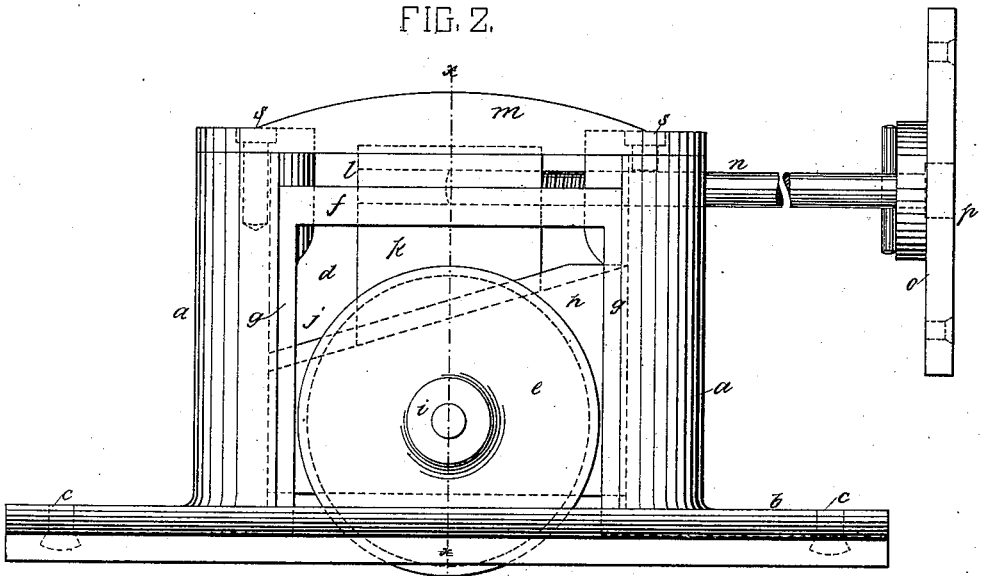
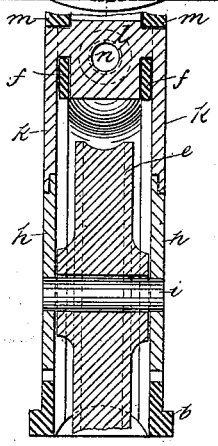


FIG. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN J. McMILLAN, OF BROOKLYN, NEW YORK.

SLIDING-DOOR SHEAVE.

SPECIFICATION forming part of Letters Patent No. 345,314, dated July 13, 1886.

Application filed July 3, 1885. Serial No. 170,655. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. McMILLAN, a subject of the Queen of Great Britain, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Sliding-Door Sheaves, of which the following is a specification.

My invention consists of a simple contrivance whereby the roller may be readily adjusted at any time with relation to the door for gaging the door to the rail after the door with the rollers attached has been put in position and for correcting it afterward, as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a top or plan view of my improved door-sheave. Fig. 2 is a side elevation with a part detached; and Fig. 3 is a sectional elevation on line *x x*, Figs. 1 and 2.

I make a sheave-case, *a*, of cast metal, adapted to be set in a mortise in the bottom of the door, and having a bottom flange, *b*, extending each way beyond the mortise for securing the case to the door by screws *c*, the flange being let in flush with the bottom of the door, or nearly so, as preferred. Above the bottom flange the case has a large open space, *d*, extending through it from side to side, above which opening and a little below the top of the case are a couple of guide-bars, *f*, which are flush with the inner walls of vertical grooves *g*, each side of the opening *d*, in which the pivot-bearing plates *h* for the roller *e* are fitted to slide or adjust up and down, the grooves being adapted to receive the plates at the upper end, and to retain the plates when so introduced, in which case the roller being introduced through a wide slot in the base will be connected by inserting the pivot *i* afterward; but, if desired, the flange *c* may be detachable from the body of the case *a*, and the roller and plates may be inserted together before screwing the flange to the case. The upper edges of the pivot-bearing plates *h* are inclined in the lengthwise direction of the case, as shown at *j*, and preferably grooved, and they bear against the reversely-inclined lower edges of the side plates, *k*, extending downward from a sliding block, *l*, fitted between the bars *f* and the cap *m* of the case, and having the end of an adjusting-screw, *n*, fitted in it, which extends through one side of the case and through the door and a face-plate, *o*, fitted in the edge of the door, said screw to be turned by a screw-driver, for drawing the adjusting-slide on the inclines *j* to thrust the roller down, or allowing said slide to shift backward to allow the door to descend, as required, the said screw-rod having a nicked head, *p*, for the purpose, which head is flush with the face-plate *o*, that is to be attached to the edge of the door, through which the rod extends. The cap *m* is in this case attached to the top of the case *a* by screws *s*, but may be cast together with the rest of the case if the base-flange *b* be made detachable, as before stated.

The essential feature of the invention consists of the sheave fitted in the case by the separate pivot-bearing plates *h*, which are arranged in the vertical grooves of the case, in combination with the wedge-slide arranged on the bars *f* of the case beneath the cap, the breadth of the plates being nearly equal to the whole breadth of the case, so as to have ample strength without material thickness for sustaining the weight of a heavy door, and to carry the door more steadily than if made narrow, and the wedge being also of ample length for substantial service, and, having contact its whole length with said plates and with the cap above it, is much more substantial than a wedge between narrow points of contact with the plates and the case. The plates being made independent of each other are better than a saddle, consisting of the plates and a connecting-bar or web above the sheave, which is very liable to break in handling before the parts are put together.

With this improved sheave much care and trouble may be avoided in the fitting, because attention need only be given to the fitting of the case with relation to the door, after which the height of the door may be regulated at will by the adjuster.

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

In a vertically-adjustable door-sheave, the separate or independent pivot-bearing plates *h*, fitted in the vertical grooves *g* of the case,

in combination with the sliding block *l*, fitted between the bars *f*, and the top *m* of the case, and provided with an adjusting-screw, said plates *h* and the sliding block *l* having the separate or independent coacting inclines for the respective pivot-plates, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN J. McMILLAN.

Witnesses:
W. J. MORGAN,
L. H. MORGAN.