

THOMAS M. LYONS.

Improvement in Sheaves and Rails for Sliding doors.

No. 115,333.

Patented May 30, 1871.

Fig. 1.

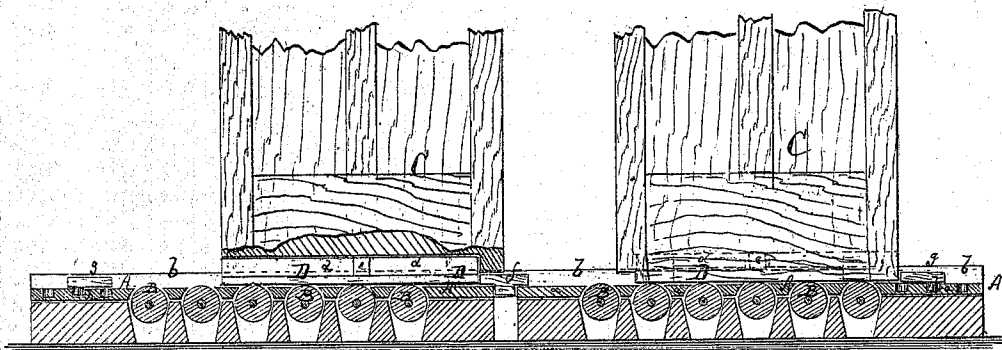


Fig. 3.

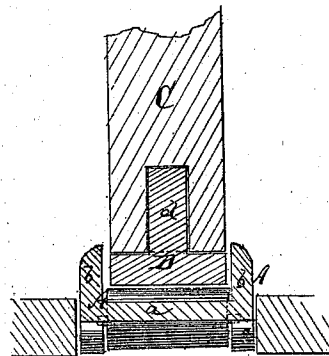
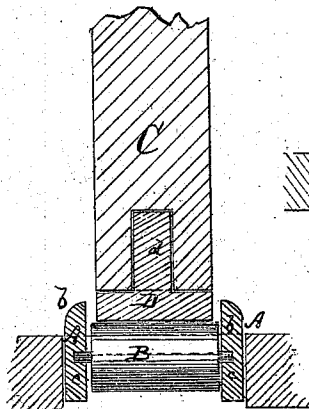


Fig. 2.



Witnesses:

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THOMAS M. LYONS, OF NEW YORK, N. Y.

IMPROVEMENT IN SHEAVES AND RAILS FOR SLIDING DOORS.

Specification forming part of Letters Patent No. 115,333, dated May 30, 1871.

To all whom it may concern:

Be it known that I, THOMAS M. LYONS, of the city, county, and State of New York, have invented a new and Improved Sheave and Rail for Sliding Doors; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a longitudinal vertical section of my improved sheave and rail for sliding doors. Figs. 2 and 3 are detail vertical transverse sections on an enlarged scale of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new guide-rail and support for sliding doors; and consists in the use of a U-shaped rail or trough having between its upright flanges a series of rollers for the immediate support of the doors. The invention consists also in the application to the door of a broad metal roll, which is sunk into its lower end to sustain it on the rollers. Finally, the invention consists in the use of adjustable stops for arresting the outward motion of each door.

A in the drawing represents the rail or trough for supporting the door. It is made in the form of a plate, *a*, as wide as the door, with projecting flanges *b b* at the sides, as is clearly shown in Fig. 3. In ears *c c*, which are suspended from the sides of the rail, are hung transverse rollers B B, whose upper rolling faces are raised slightly above the surface of the plate *a*, the said plate being perforated for the reception of the rollers, as indicated in Fig. 1. The proportions of the rollers, as compared with the extent of rail in Fig. 1, are somewhat exaggerated. The doors C are shod at their lower ends with metal soles D. Each sole is as wide as or narrower than the thickness of the door, and has a narrow projecting rib, *d*, which enters a groove cut in the door. From this rib project two or more lugs or pins,

e e, laterally, for preventing the longitudinal displacement of the shoe on the door. The door thus protected rests on the rollers B and between the flanges *b b*. Its motion on the rail will be easy, and its displacement laterally almost impossible. The rail is sunk in the floor so far that the upper edges of the flanges will be about flush with the surface of the carpet on the floor. It will be seen that with this arrangement the carpet can never come under the door as on the ordinary narrow rails now in use, and will consequently not be injured by the door. The door will not be weakened by the shoe or sole D, which is the case when the ordinary devices are used. Between the two doors is secured to the rail a projection or stop, *f*, which arrests each door in the middle of the rail. The outer stop *g*, for arresting the outward motion of each door, is a short plate fitting between the flanges *b*, and secured by a projecting pin, *h*, in one of a series of apertures of the rail. The pin *h* is not in the middle of the stop *g*, so that the latter may be reversed to vary the point where the door is arrested. By thus being reversible, and at the same time adjustable in one of a number of apertures, the top can be set at will to arrest the outward motion of the door at any suitable point.

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

1. The flanged rail or trough A provided with the rollers B B to constitute a guide and support for a sliding door, as set forth.

2. The sole or shoe D, having the rib *d* and projecting lug or lugs *e*, and applied to a sliding door, substantially as and for the purpose herein shown and described.

3. The adjustable stop *g* applied to the flanged rail or trough A to arrest the outward motion of the door, substantially as herein shown and described.

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Witnesses:

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