M. L. Deering,

Door Hanger.

No. 90,345. Patented May 25, 1869.

Fig. 1.

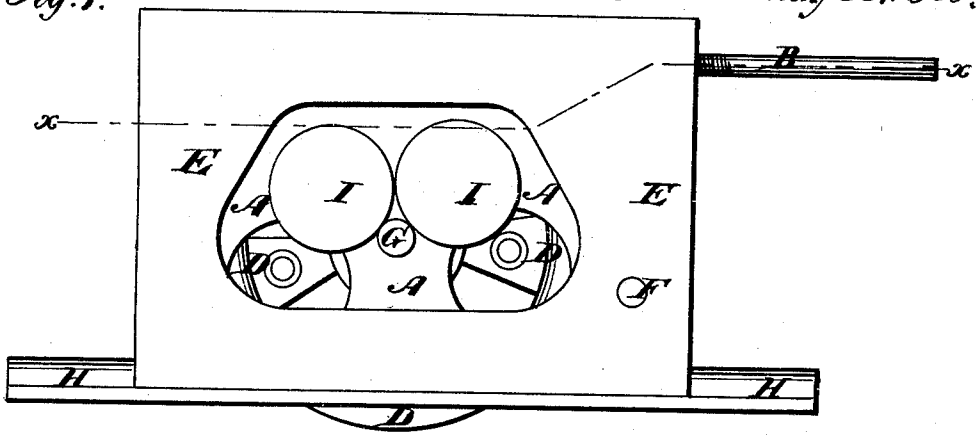


Fig. 2.

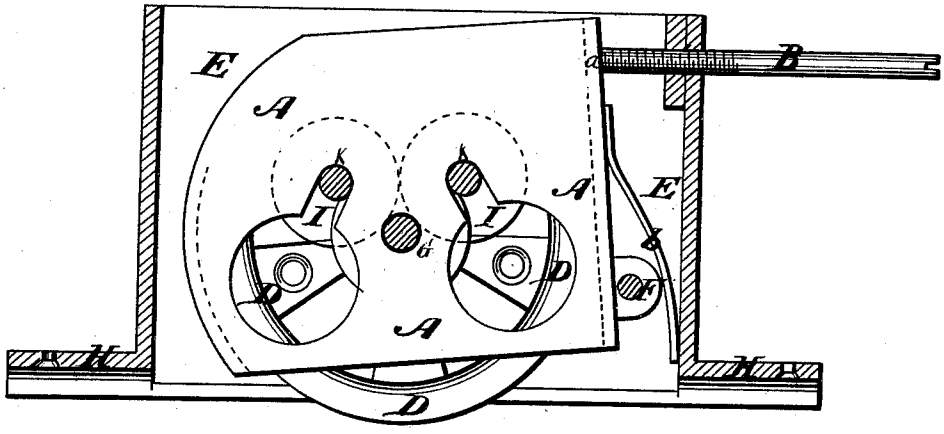
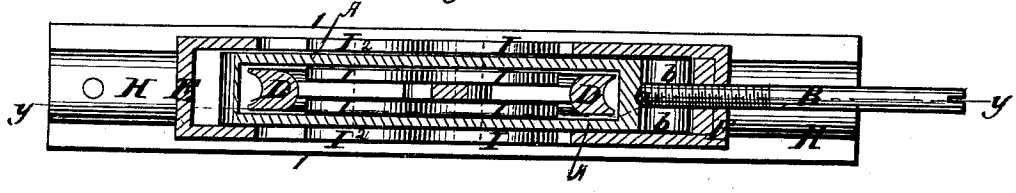


Fig. 3.

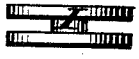


Witnesses.

S. L. Wagfelder

John Parke

Fig. 4.



Inventor

Mark L. Deering

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

MARK L. DEERING, OF NEW YORK, N. Y.

IMPROVEMENT IN SLIDING-DOOR SHEAVE.

Specification forming part of Letters Patent No. **90,345**, dated May 25, 1869.

To all to whom these presents shall come, greeting:

Be it known that I, MARK L. DEERING, of the city of New York, in the county and State of New York, the individual mentioned in and whose name is subscribed to the petition in this case, have, since the date of the application for Letters Patent referred to in said petition, made certain improvements on my invention therein referred to; and do declare the following to be a correct description thereof, reference being had to the annexed drawings or diagrams, representing the same, in which—

Figures 1 and 2 are front sectional elevations, and Fig. 3 is a horizontal transverse view, Fig. 4 being a transverse view of a grooved roller necessary to complete the improvement I desire to add to my said invention.

The nature of my said improvement consists in providing the sliding-door sheave invented by me, as aforesaid, with grooved rollers, fitting into the frame within the casing of the sheave, and placing them in such a position that the axle of the pulley upon the door-slides strikes the rollers at certain points on their peripheries, and thereby greatly reduces the friction (consequent upon the constant sliding back and forth of the door) of the bearings, and lessens the wear and tear of the axle of the pulley aforesaid, at the same time enabling the door to be slid back and forth with greater ease and with less liability of derangement of the machinery constituting the sheave.

To enable others skilled in the art to make, use, and apply my improvement to my said invention, I will proceed to describe its construction, application, and operation.

I I, Fig. 1, are grooved rollers, the frame A A having its sides fitted into the grooves of the roller in such a manner that the rollers cannot get out of place. G is the axle of the sheave D, inserted in frame A A.

When the sheave is in its place in the door, and the weight of the door rests upon the sheave D, the axle G is brought in contact with the friction-rollers I I in such a manner that each edge or surface of the friction-rollers forms a bearing, in which said axle revolves as the pulley revolves, but not much less friction than if the bearing of the axle were in the ordinary form in the frame A A.

I construct my frame and sheave-case in any of the known forms, and apply the rollers I I for the purpose of reducing the friction in traversing the door on the track, and for the purpose of greatly reducing the possibility of the sheave getting out of repair, and of enabling a sliding door, with my invention and improvement attached to it, to be the more easily moved backward or forward.

What I claim as my invention, and claim Letters Patent of the United States for, as an improvement on my patent passed September 8, 1868, in sliding-door sheaves, is—

The arrangement and application of the friction-rollers I I, in combination with the sheave D and shaft G, frames A and E, and slides H, as shown and described, for the purpose described.

MARK L. DEERING.

Witnesses:
JOSEPH J. MARRIN,
GEORGE WORKMAN.