

W. JOHNSTON.

Door-Hanger.

No. 160,598.

Patented March 9, 1875.

Fig. 1.

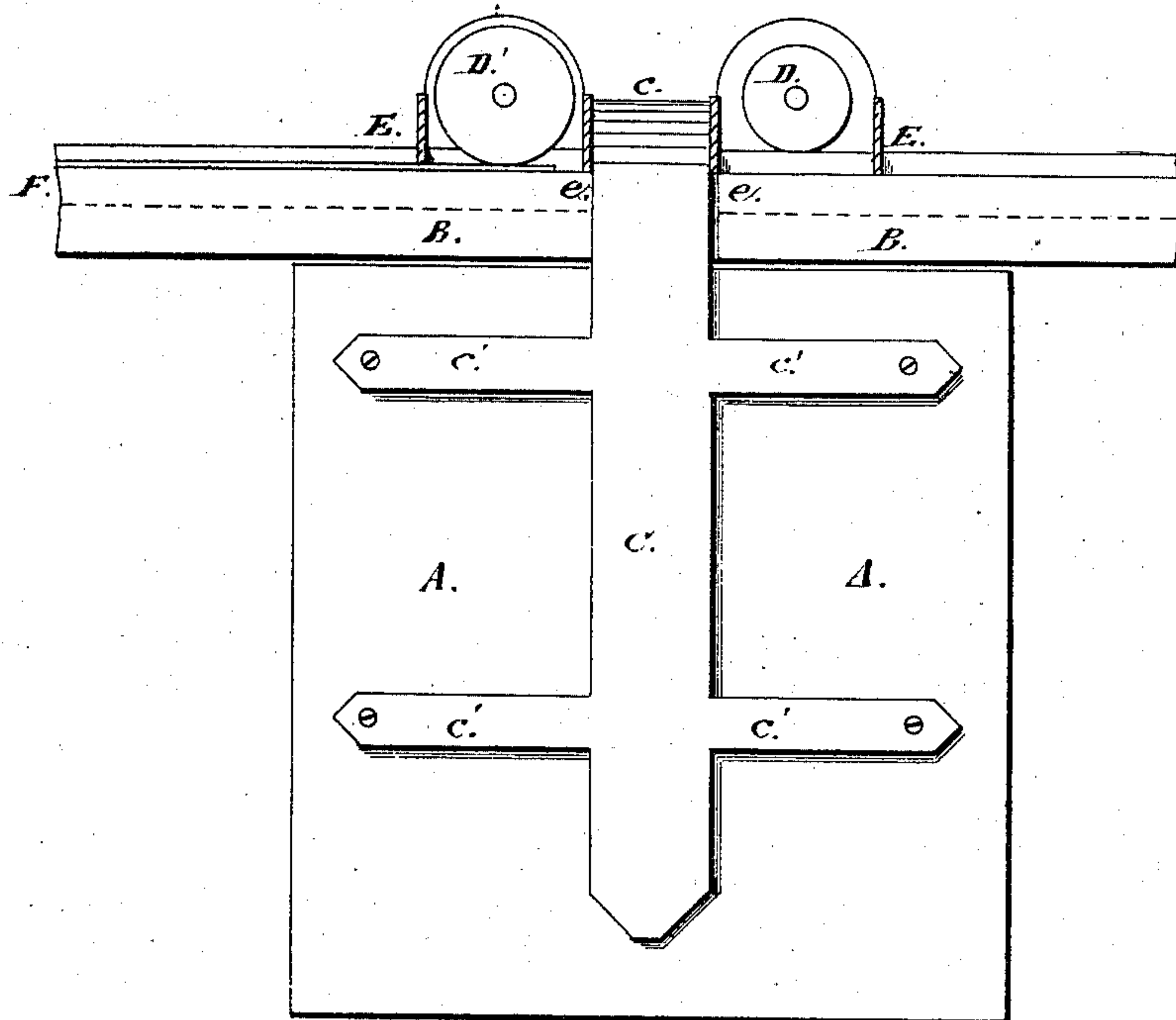


Fig. 3.

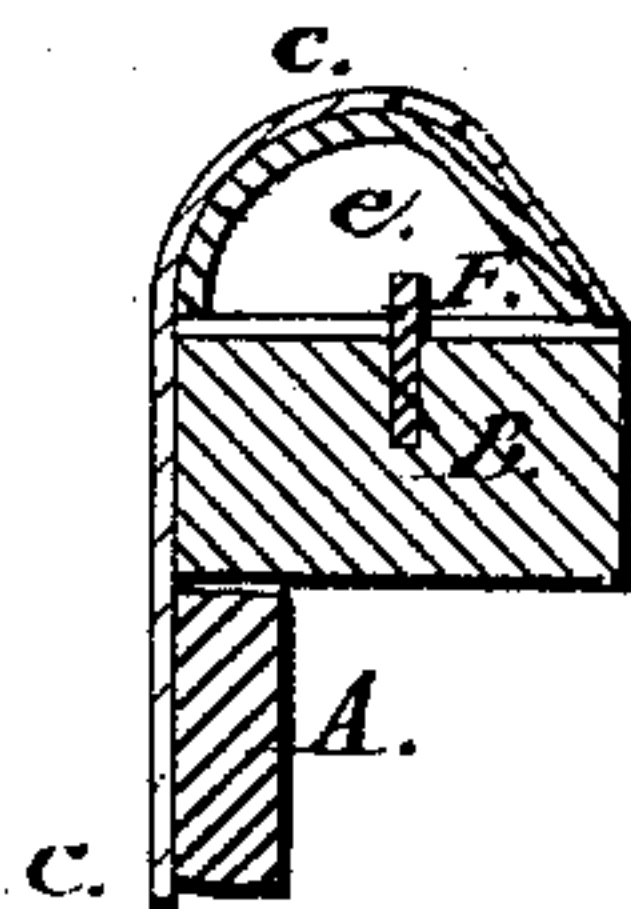


Fig. 2.

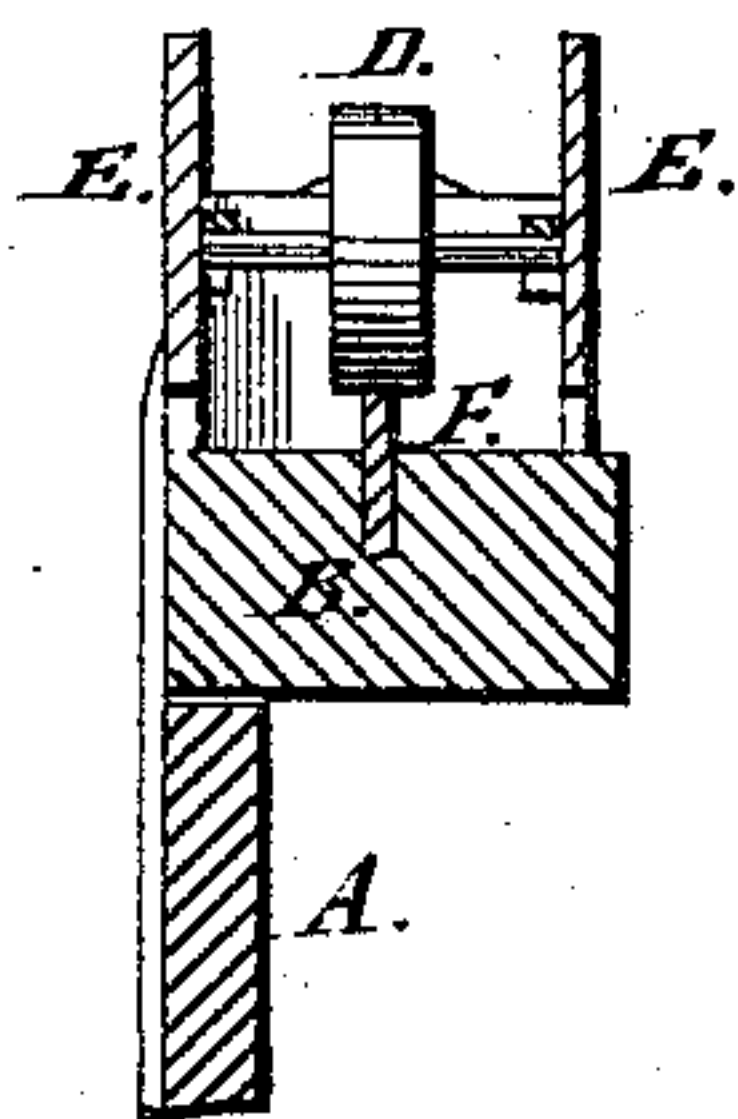


Fig. 4.

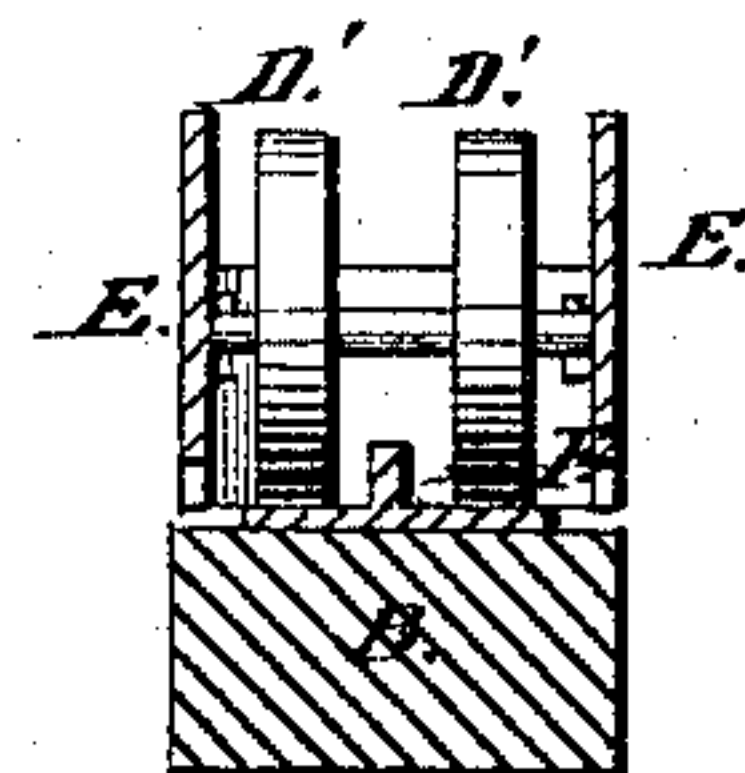


Fig. 6.

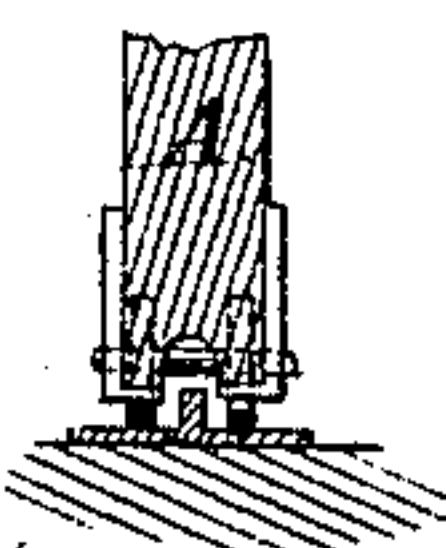


Fig. 5.

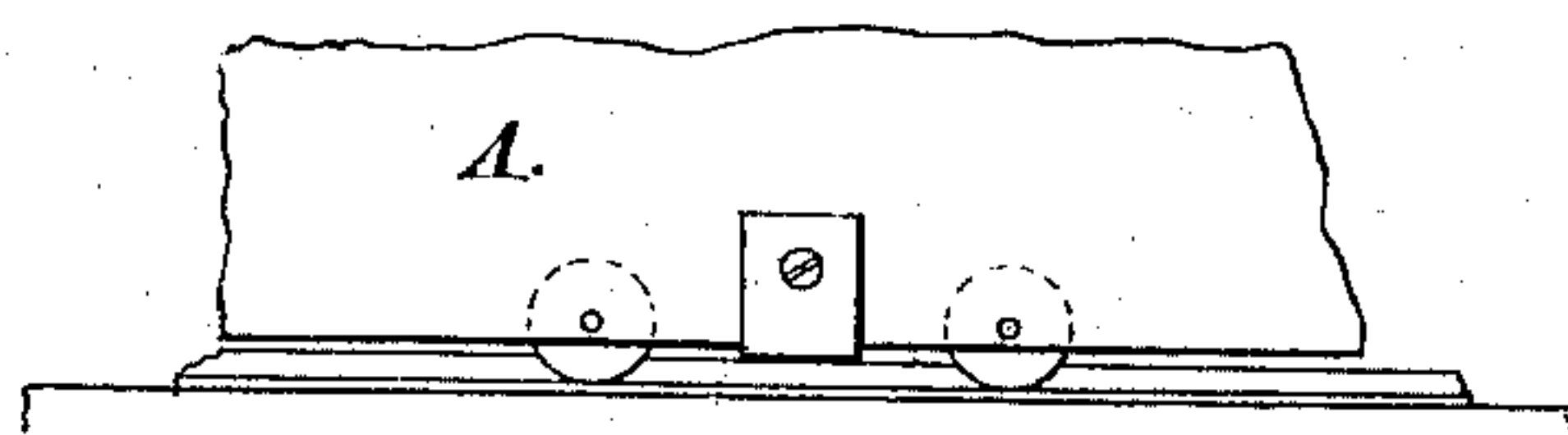
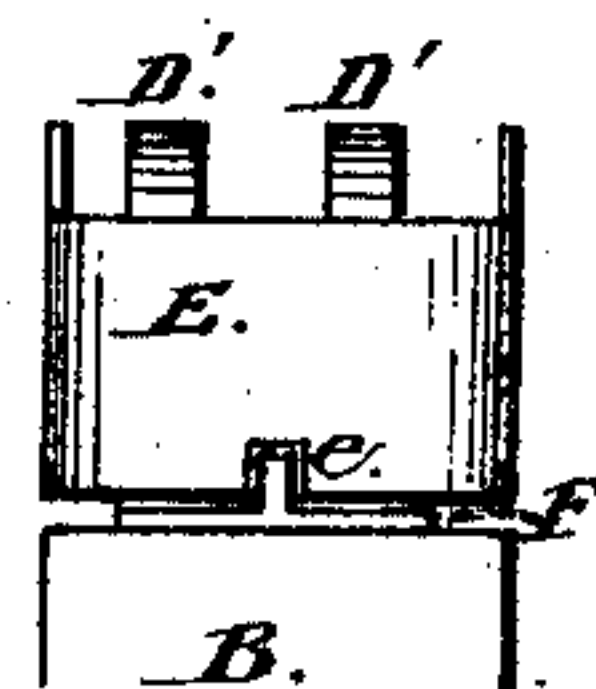


Fig. 7.



Witnesses:

Myrdner.  
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William Johnston

# UNITED STATES PATENT OFFICE.

WILLIAM JOHNSTON, OF SHELBY, NEW YORK.

## IMPROVEMENT IN DOOR-HANGERS.

Specification forming part of Letters Patent No. **160,598**, dated March 9, 1875; application filed February 25, 1875.

*To all whom it may concern:*

Be it known that I, WILLIAM JOHNSTON, of Shelby, in the county of Orleans, in the State of New York, have invented certain Improvements in Door-Hangers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which refer to the same parts in the various figures.

Figure 1 is an elevation, showing the inside of a barn-door with my improved hanger in position. Fig. 2 is a sectional view through the axis of the single roller. Fig. 3 is a sectional view through the saddle or bridge on which the hanger rests, showing its peculiar shape or configuration. Fig. 4 is a sectional view through the axes of two rollers, when the two are used instead of one. Figs. 5 and 6 are detail views, showing what is preferably my arrangement for the bottom of the door; and Fig. 7 is an end view of a portion of my movable double case or truck when two rollers are used instead of one, showing a slot in the truck, which fits over, and drops down upon, the T-rail, and, by movement of the truck, clears the track of ice, snow, or the like obstructions.

The object of my invention is to produce a strong serviceable barn-door hanger, which shall allow the bottom of the door to tilt or swing out, and shall also be capable of clearing its own track of obstructions; and to this end my invention consists of a peculiarly-constructed movable double case or truck having a connecting saddle, on which the strap or hanger is hooked, thereby suspending the door, the truck carrying on either side of the saddle preferably one, or it may be two, rollers, which run upon or on either side of a suitable T-shaped track, while slots in the case permit it to drop down upon the rail, and, by its forward or backward movement, clear away snow, ice, or any similar obstructions.

In the accompanying drawings, A represents a barn-door of the usual construction. B is the wooden rail or bedway on which the iron track is laid, or in which it is embedded. This rail supports the movable truck

with its rollers, and carries the door suspended on it. C is the hanger, either cast or formed of wrought-iron, with suitable arms or braces *c'*, for riveting or screwing it firmly to the inside of the barn-door, the main strap or body of the hanger terminating in a strong hook, *c*, fitted to, and passing over, the connecting-saddle.

D is the single roller, (one on either side,) journaled in the double case, and running on the T-rail, and these single rollers are preferably employed; but for extra heavy doors, the double rollers *D'*, two on either side of the saddle or bridge, may be used; and in that case the rollers will run on either side of the T-rail, instead of traveling upon it.

E is the double case or truck, which is either cast or made of wrought-iron, fitted to incase the rollers, and rest and travel on the iron rail and its bedway. The two parts of this case are connected together by an arched saddle or bridge, *e*, flattened somewhat at the outer side, and adapted to carry the suspending-hook of the hanger, and with it the barn-door. This double case is likewise slotted, to enable it to fit over, and drop down upon, the T-rail, thus holding itself on the track, and causing it, by either a forward or backward movement, to clear away snow, ice, or the like obstructions from before the rollers, and keep the track in good working condition.

E is the ordinary T-rail, secured by flanges; or I may, and preferably do, employ a suitable bar of iron, set edgewise, and firmly embedded in the wood, thus serving every purpose of the T-rail at less cost.

The operation is so simple and easily understood as to require no further explanation other than that a rocking movement consequent on the peculiar form of the saddle and suspending-hook enables me to tilt or swing out the door at the bottom without any danger of displacing the truck.

The special advantages of my improved barn-door hanger are, its great strength and durability, that it clears its own track before the rollers, and that the barn-door is allowed to tilt or swing out from the bottom without displacement or interference with its usual lateral movement.



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

1. The movable double case or truck E, connected by saddle or bridge *e*, and carrying the single rollers D, or the double rollers D', in combination with the T-rail F, when the case is slotted, to drop down upon the rail and clear the track of obstructions, all substantially as and for the purpose specified.

2. The hanger C, having hook *c*, in combination with, and fitted to, saddle *e* of the movable double case or truck E, whereby a tilting movement is secured for the bottom of the barn-door, all substantially as described and shown, for the purpose set forth.

WILLIAM JOHNSTON.

Witnesses:

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FRANK GROFF.