

L. A. Cook,
Sliding Door.
No. 108763. Patented Nov. 1. 1870.

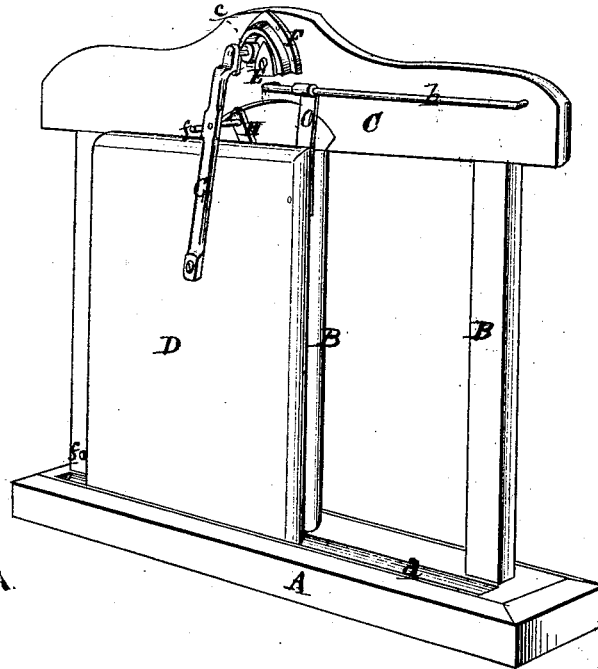
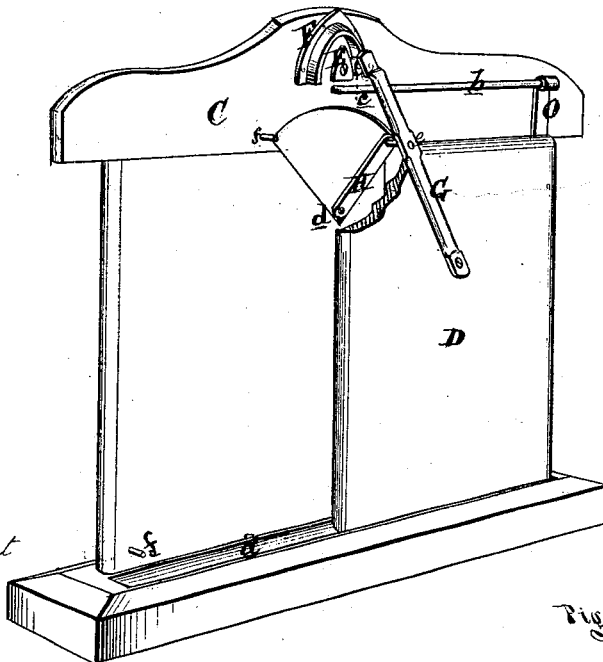


Fig. 1.



WITNESSES
M. Stewart
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per Atty
Fig. 2. M. B. Sprague

United States Patent Office.

LEEDS A. COOK, OF CONCORD, MICHIGAN.

Letters Patent No. 108,763, dated November 1, 1870.

IMPROVEMENT IN SLIDING DOORS.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Be it known that I, LEEDS A. COOK, of Concord, in the county of Jackson and State of Michigan, have invented a new and useful Improvement in a Hanging for Sliding Doors; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a perspective view of my device as attached to a door, which is shown open, and

Figure 2 is a similar view of the door closed, and partially broken away to show the relative positions of the various parts of the hanging.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improved method of hanging sliding doors, and gates, and consists in the peculiar and novel construction of the hangings, and the method of operating the same, as more fully hereinafter set forth.

In the drawing—

A represents the sill; B, the posts; and C, the lintel of a door-way.

In the sill is a groove or channel, *a*, extending its length, and in which the lower edge of the door D travels.

b is a horizontal guide-rod, extending along the lintel above the door-way, projecting a little from the lintel.

O is a rod secured to the upper outer corner of the door, and hooks over the rod *b*, thereby suspending the door at that side from the said rod.

E is a cam-plate, conical in outline, secured to the lintel midway of its length, and surrounding this on the upper sides is a cam-guide, F, of similar form.

In the upper part of the door, in the middle of its breadth, is pivoted a bar, G, curved inward at its up-

per end, which carries a friction-roller, *c*, which travels between the cam-plate and cam-guide.

At *d* on the inner post is pivoted the lower end of a radius-bar, H, whose upper end is pivoted to the bar G at *e*.

The radius-bar vibrates in a recess in the face of the post, so that the door may set closely up to it.

Proper stops *f* are placed on the frame and lintel to prevent the door from being carried too far, in opening, to the damage of the hangings.

In place of a hook or ring over the guide-rod *b*, a pulley on the top of the suspension-rod O may ride the guide-rod; but no other pulleys are required, as, in moving the door to and fro, the action of the bar G in climbing the cam-plate is to raise the door a little from the bottom of the groove, while the radius-bar guides it in its course.

Aside from the cheapness of cost as compared with roller-fixtures, this hanging possesses several advantages over the latter, among which are the ease with which a heavy door or gate may be moved, and, in exposed situations, it is not liable to stick fast in the groove, as the bars G and H are so arranged as to lift it clear from the bottom of the groove.

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

The construction and arrangement of the cam-plate E, cam-guide F, bar G, provided with a friction-roller, *c*, working between said plate and guide, radius-bar H, guide-rod *b*, and suspension-rod O, with relation to the door D and its frame, as and for the purpose set forth.

L. A. COOK.

Witnesses:

J. M. DODGE,

J. L. PARMETER.