G. H. Lupton.

Hanging Windows and Doors.

No. 60,023. Patented Nov. 27, 1866.

Fig. 1.

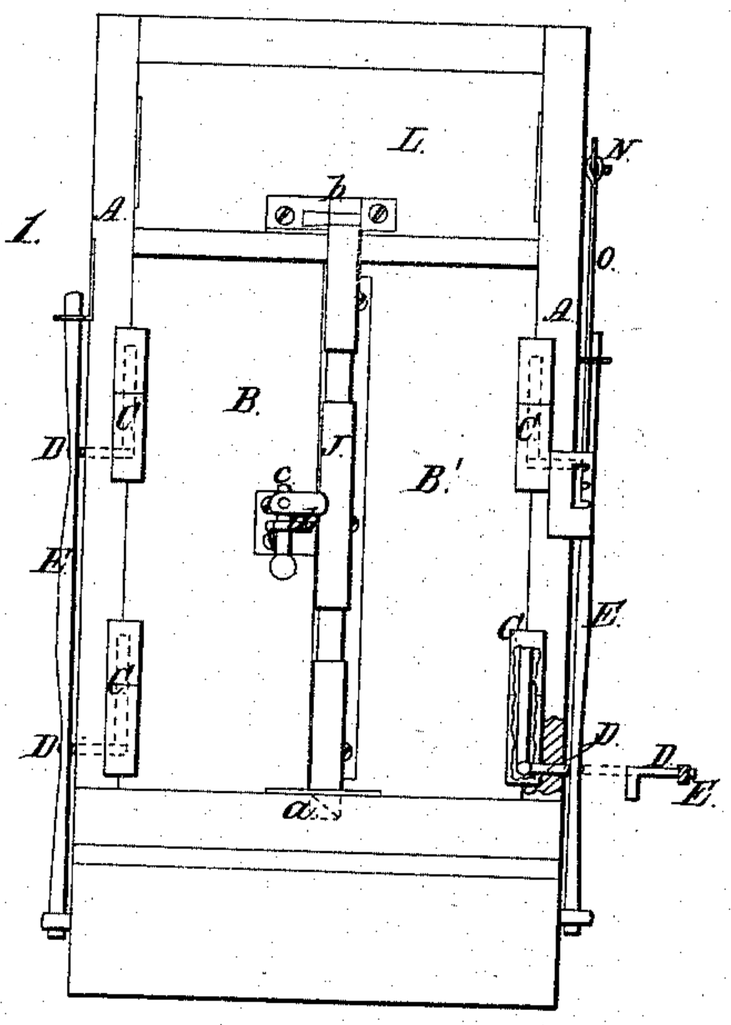


Fig. 2.

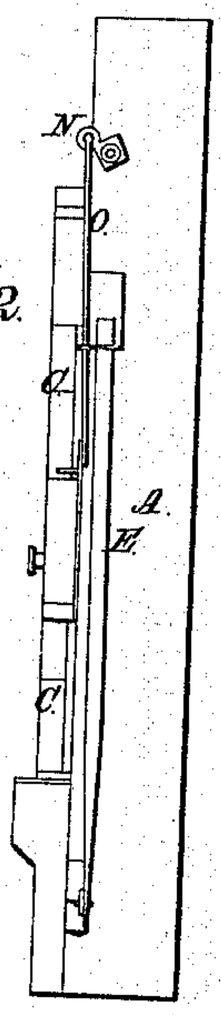


Fig. 3.

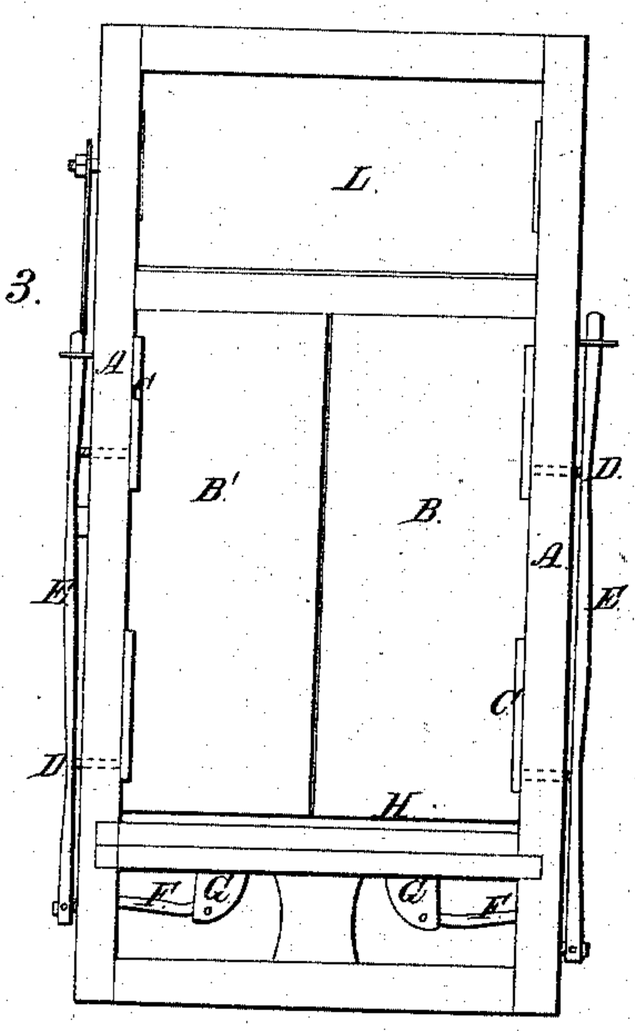
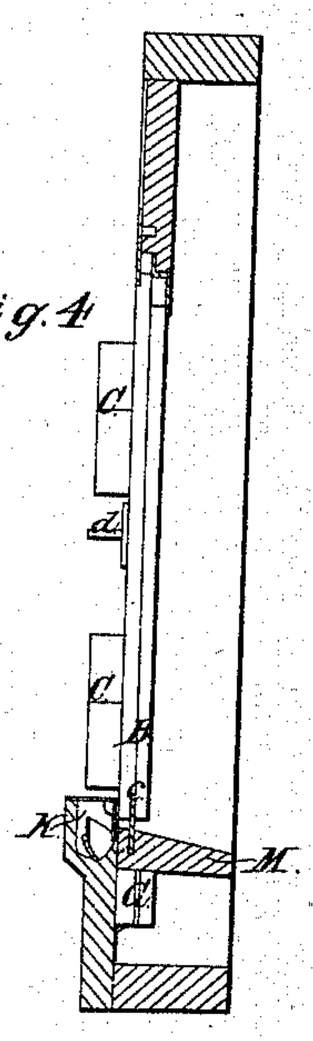


Fig. 4



Witnesses.

J. H. Burridge

I. Holmes

Inventor.

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United States Patent Office.

IMPROVED MODE OF HANGING WINDOWS AND DOORS.

G. H. LUPTON, OF CLEVELAND, OHIO.

Letters Patent No. 60,023, *dated November* 27, 1866.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, G. H. LUPTON, of Cleveland, in the county of Cuyahoga, and State of Ohio, have invented certain new and useful improvements in Hanging Windows and Doors; and I do hereby declare that the following is a full and complete description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an inside view of a window door.

Figure 2 is a side view of the same.

Figure 3 is an outside view of fig. 1.

Figure 4 is a detached vertical section.

Like letters of reference refer to like parts in the different views.

A, fig. 1, is the window frame; B B′ the doors, which are hung to the frame by the hinges, C. These hinges are so constructed that that part of the hinge which is attached to the door may be raised up from the section secured to the frame when the door is raised, for a purpose hereafter described. The pin of the hinge is not fixed as in the ordinary hinge, but is free to play upward and downward in the socket, as will hereafter be shown. D is a rod which is made to pass through the sides of the casing and into the lower part of the hinge below the pin, and upon which it rests, and by which they are raised upward, a slot in the casing and hinge allowing this vertical movement. Each hinge is provided with a similar rod, and the two on each side are connected to each other by the link E, by means of which they are operated conjointly. F, fig. 3, is a curved arm or lever, to the inner end of which is attached the weight G, the outer end being pivoted to the lower end of the link E. H, fig. 3, is a weather-strip placed near to the edge of the door-sill; in the bottom of the door is cut a groove, *e*, so that when it is closed it will shut down over the strip, one-half the thickness of the door being on the outside of the strip, and the other half between the strip and sill, M, as shown in fig. 4.

The manner of opening and shutting this door is as follows: On being closed, as shown in fig. 1, the bottom of the door is below the sill, as shown in fig. 4; hence, in order to open them, they must be raised above the sill so that they may swing back over it; this is accomplished by the rods D, the inner ends of which being under the hinge-pins, as above said, and the outer ends connected by the link E, now, on pushing up the link, the pins in consequence raise up the door of sufficient height to allow it to swing clear of the sill. The doors when opened or raised up are prevented from again shutting down by the counterbalance weights, G, which also by their weight assist in raising the door, so that it requires but little effort.

The arrangement of the weather-strip in the manner described effectually prevents the winds, rain, and snow from drifting under the doors, and also is a protection against their being opened from the outside.

The manner of fastening the doors when shut is by the long bolt J, fig. 1, on the door B′, the lower end of which drops into a hole, K, fig. 4; the bolt is then turned, and a nib, indicated by the dotted lines *a*, fig. 1, prevents it from being drawn up without turning it back for that purpose. The upper end of the bolt is provided with a hook, *b*, fig. 1, which, on turning the bolt for the purpose of fastening the lower end, catches into a slot provided for that purpose; hence both ends of the bolt operating conjointly are fastened at the same time. *c* is a jointed arm projecting from the bolt; and when the doors are closed the outer section of the arm drops into a hook, *d*, on the door, B, and by this means is prevented from being opened. By this arrangement both doors are easily and firmly closed by a conjoint movement of the bolt and arm. L is a door placed above the doors B B′, for the purpose of ventilation when the lower doors are closed; this door is pivoted at the centre, and is operated by the arm N, fig. 2. A rod, O, attached to the arm, enables a person on the floor to open or shut it, as may be desired.

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

1. The link E, and counterbalance G, in combination with the rods D, pins, and window or door, as and for the purpose set forth.

2. The weather-strip H, groove *c*, and sill M, arranged as set forth, in combination with apparatus for raising the window or door, substantially as set forth.

G. H. LUPTON.

Witnesses:

JAMES BROKENSHIRE,

THOS. WHITEHEAD.