

(Model.)

H. A. HOLMES.

DOOR HANGER.

No. 316,037.

Patented Apr. 21, 1885.

Fig. 1.

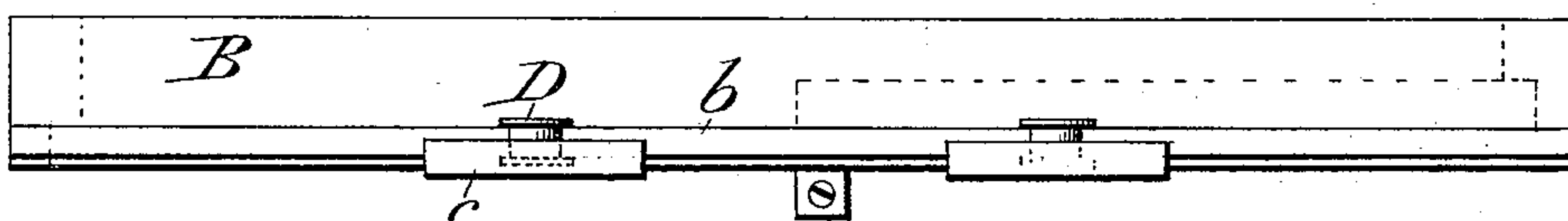


Fig. 2.

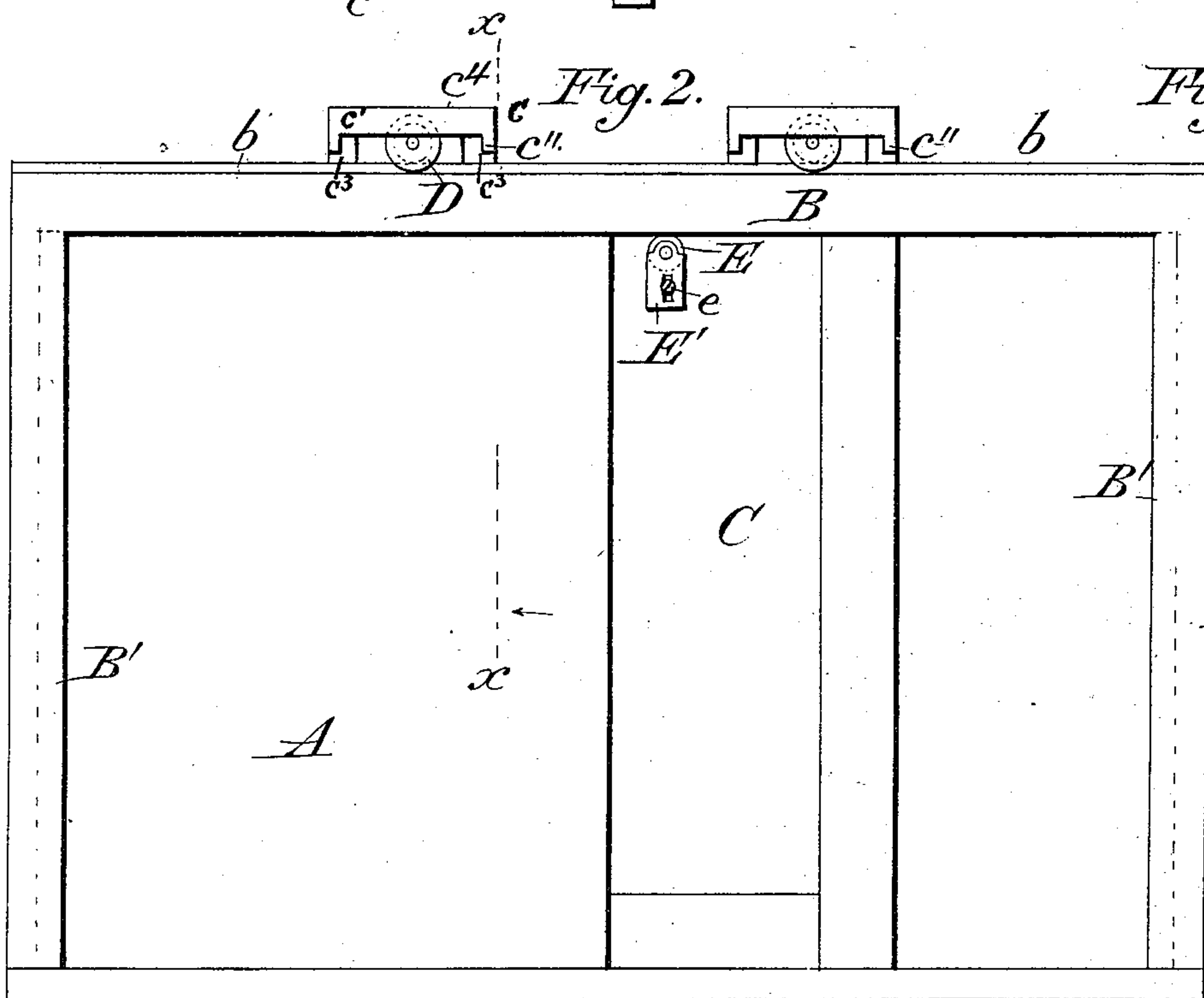


Fig. 3.

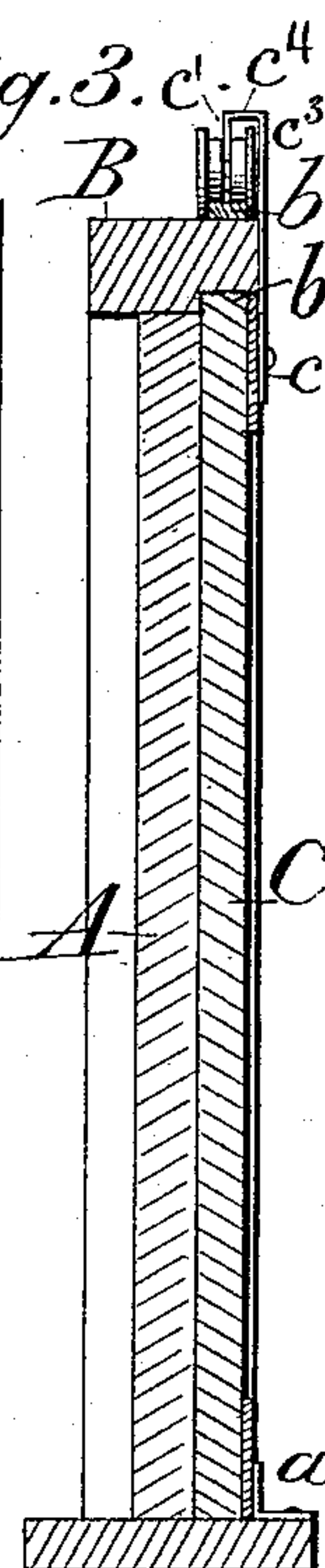


Fig. 4.

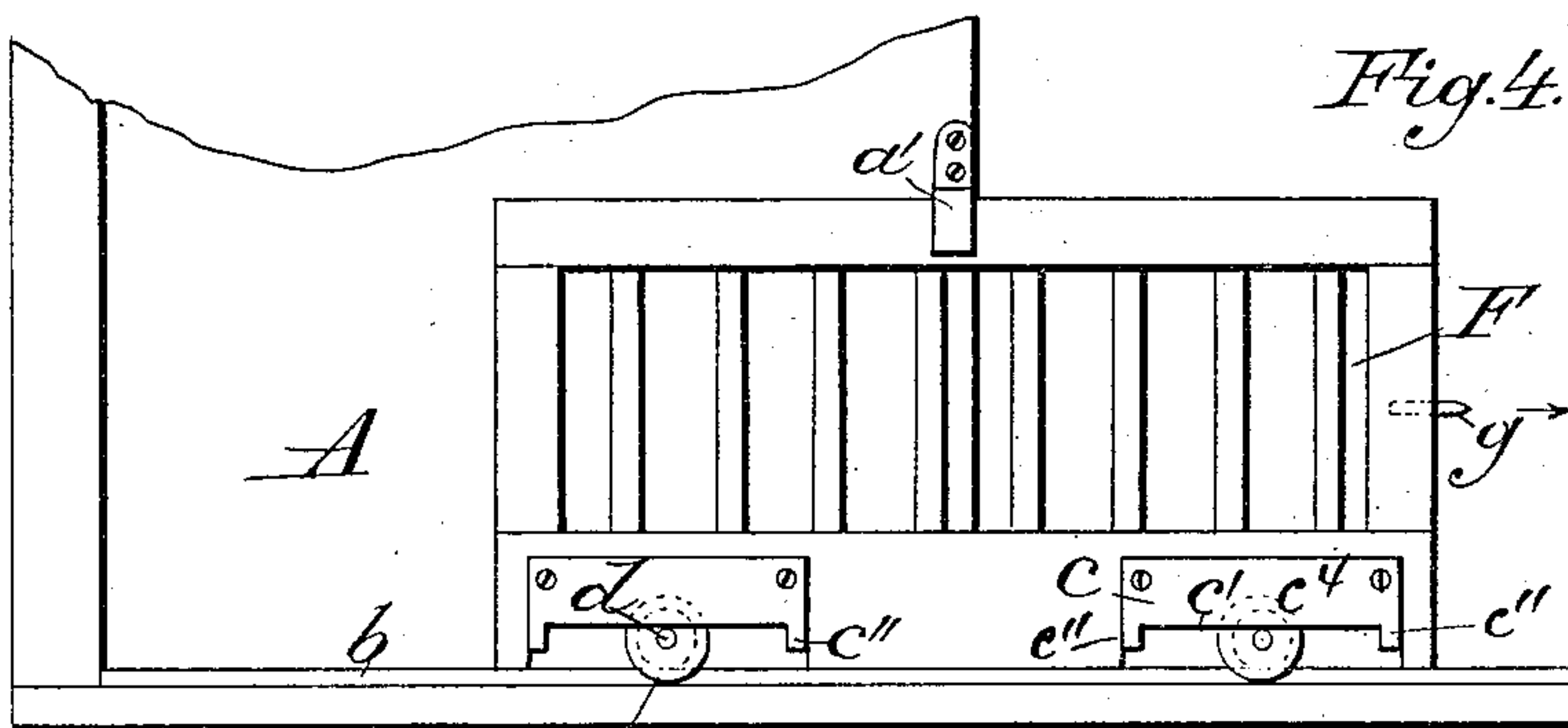


Fig. 5.

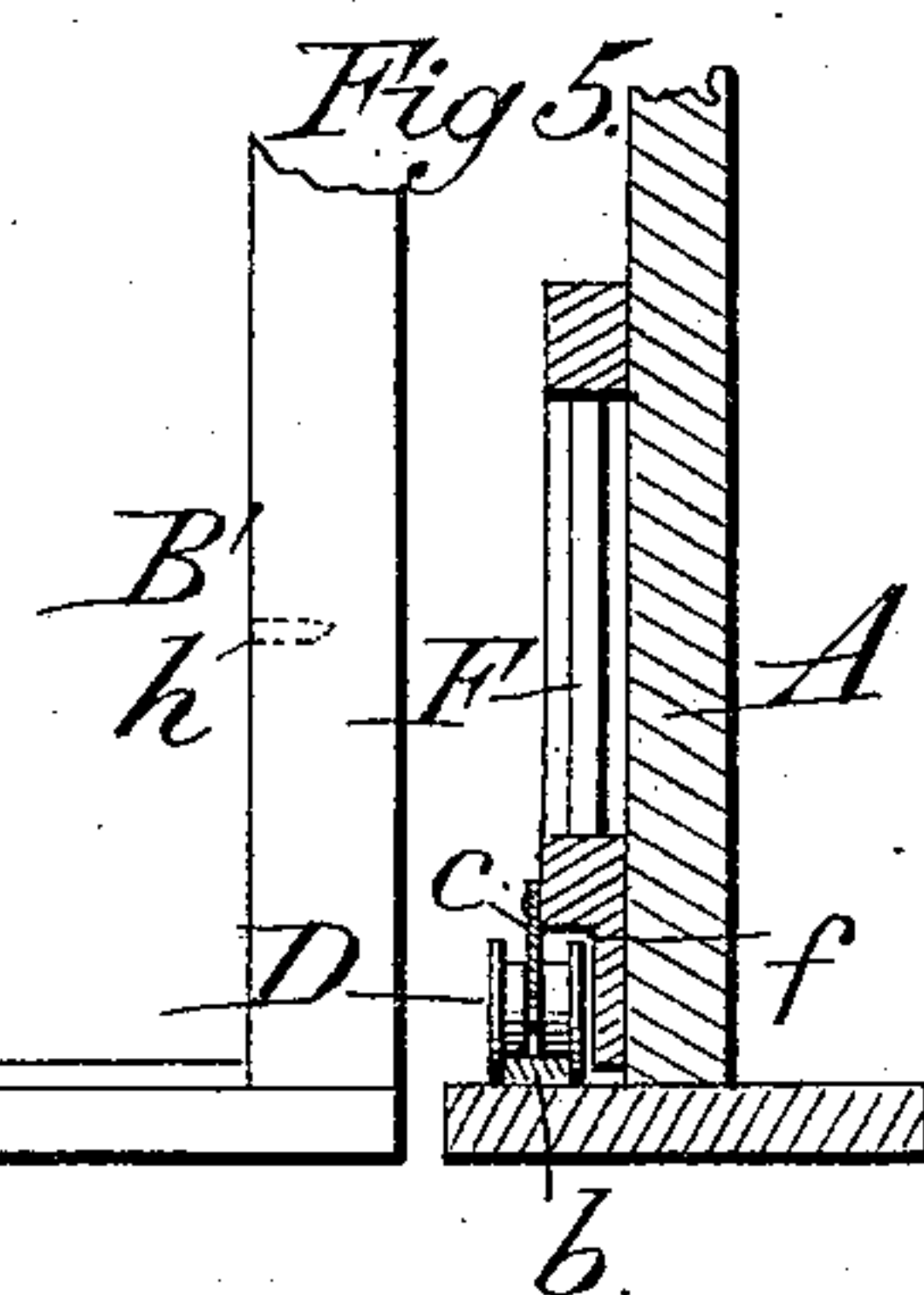
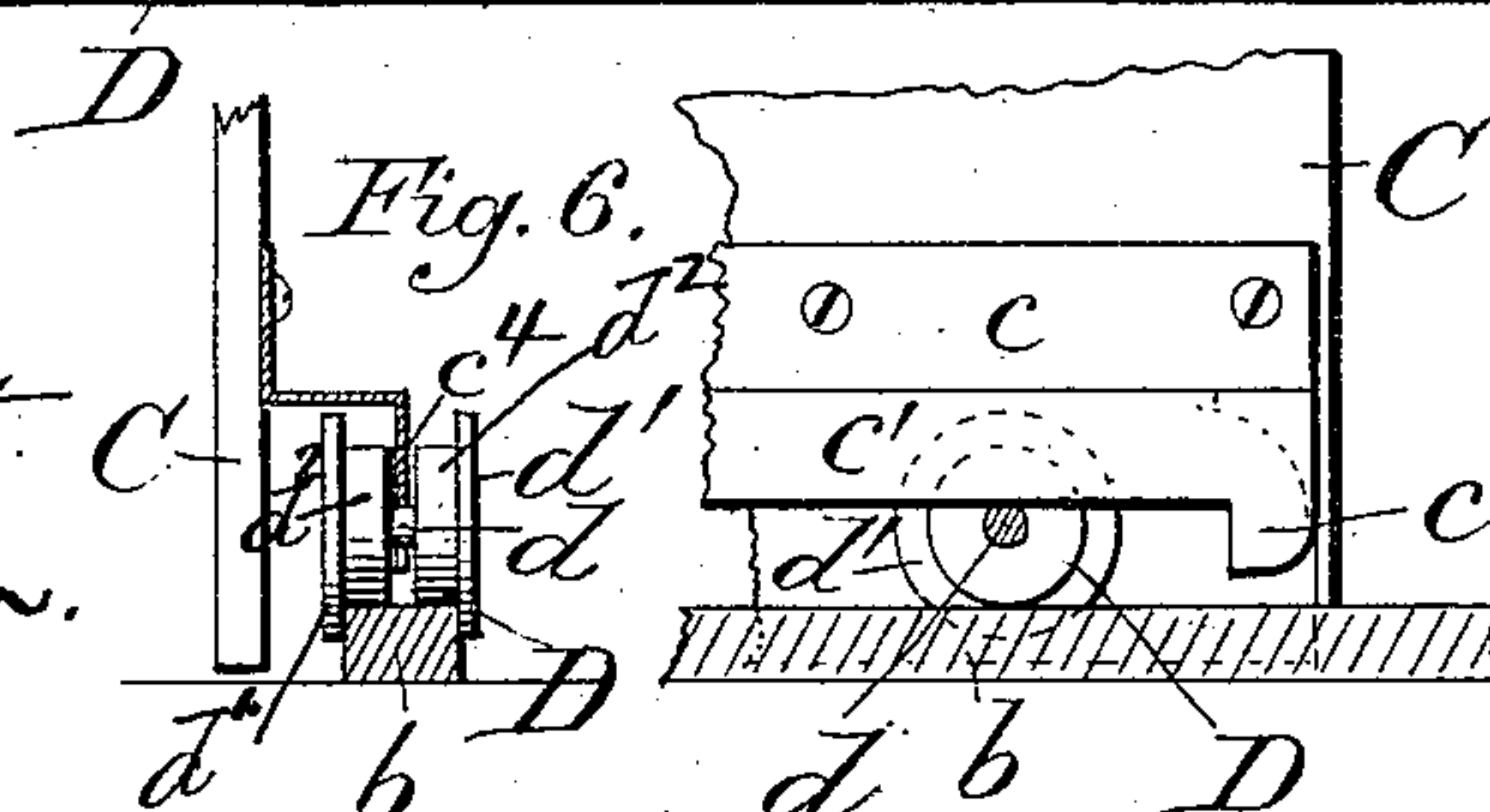


Fig. 6.



Attest:

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HIRAM A. HOLMES, OF EPSOM, NEW HAMPSHIRE.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 316,037, dated April 21, 1885.

Application filed December 22, 1880. (Model.)

To all whom it may concern:

Be it known that I, HIRAM A. HOLMES, a citizen of the United States, residing at Epsom, in the county of Merrimac and State of New Hampshire, have invented certain new and useful Improvements in Door-Hangers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to improved devices employed in hanging sliding doors or gates, adapted for use in barns, warehouses, freight-cars, depots, and other buildings; and the invention consists in the construction and arrangement of devices, as hereinafter more fully described and claimed.

In the annexed drawings, in which similar letters indicate like parts in the several views, Figure 1 is a plan view. Fig. 2 is a side view. Fig. 3 is a vertical section on the line $x x$ of Fig. 2. Fig. 4 is a side view of my invention applied to a gate. Fig. 5 is a vertical transverse section of the same, and Fig. 6 is a modification.

A represents the side of a car or building, and B is a rabbeted cross-beam supported on the uprights B' B'.

On the top of the cross-beam B, and extending for any desired distance, is a track, b , upon which travel the rollers that support the sliding door C. The cross-beam B and the track b are firm and rigid, forming a solid and unyielding track for the door. This door is provided at the top with two or more brackets or hangers, $c c$. These brackets consist of the plates or strips c^3 , which are connected at their tops by the rider-bars c^4 . These rider-bars are turned over, as shown, forming the bearing c' for the journals of the rollers. The rider-bar and the plates may be made in one piece or separately and secured together.

At each end of the bearings c' is a projection, c'' , forming a lug or stop against which the journal or axle of the roller bears, thus preventing the roller from slipping out at the end of the bracket. The roller is not attached

to the bracket, but runs loosely between its lower edge or bearing, c' , and the track b , the roller being kept in place at each end by the stops $c'' c''$. The door C is hung in such a manner that its upper edge fits into a rabbet, b' , made in the under side of the cross-beam B, while its lower part runs on the inner side of a guide, a , secured to the door-sill. The rollers D are each cut through the periphery or formed in two parts, $d^2 d^2$, that are connected by an axle or journal, d , each part being also provided with a flange, d' . When placed in proper position, the rollers D rest on the track b , being held thereon by the flanges $d' d'$, and the axles $d d$ support the bearings $c' c'$ of the brackets $c c$, thus suspending the door C in such a manner that it may be readily rolled from side to side.

In order to obviate any tendency of the rollers to slip from under the bearings $c' c'$ by a sudden jar in opening or closing the door, I employ an auxiliary friction-roller, E, which may be secured to the inner side of the door C, near its top, in a suitable slotted bracket, E', so as to be easily adjusted by means of a set-screw, e . When the roller E is adjusted to come in contact with the under part of the beam B, all liability of the upper rollers, D D, to jump the track or slip from under the bearings $c' c'$ at any sudden jar is effectually prevented, and a more even motion is imparted to the door.

The rollers D may be applied to the bottom of a door or gate in a similar manner, as illustrated in Figs. 4 and 5, in which F represents a small sliding gate. In this case the lower part of the gate is provided with a rabbet, f , to the outer side of which is attached a straight bracket, e , or one without bends; or, if desired, the rabbet f may be dispensed with and a bracket formed as shown in Fig. 6 may be employed. The roller D rests on the track b , secured to the door-sill, and supports the gate in either case, so that it may be moved from side to side, as before described, the gate being held in place by a guide, a' , at the top, and secured, when closed, by a pin or bolt, g , that enters an opening, h , in the post B'. In either form it will be seen that the rider-bar c^4 , bearing on the axle d , brings the weight on the middle of

the roller and directly over the middle of the track. This better equalizes the strain and pressure.

5 The device is simple and efficient in operation, and may be readily applied at but little expense.

I am aware that a door has been provided with a staple in which is held a roller, said roller engaging the inside of a tube, the shaft 10 passing up through a slit in said tube, and the flanges of the roller coming one on each side of the slit.

Having thus described my invention, what I claim as new, and desire to secure by Letters 15 Patent, is—

The door C and the hanger *c*, having the rider-bar *c'*, in combination with the roller D, consisting of parts *d'* *d''* and axle *d*, and the track-rail *b*, the roller straddling and bearing on the rail, the hanger bearing directly over 20 the rail, the bearing *c'*, resting on the axle *d* of the roller, all combined and arranged as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HIRAM A. HOLMES.

Witnesses:

BENJAMIN TOWLE,
HARRIETT E. TOWLE.