

No. 637,615.

Patented Nov. 21, 1899.

D. N. JERAULD.

FIRE ESCAPE.

(Application filed July 31, 1899.)

(No Model.)

FIG. 1.

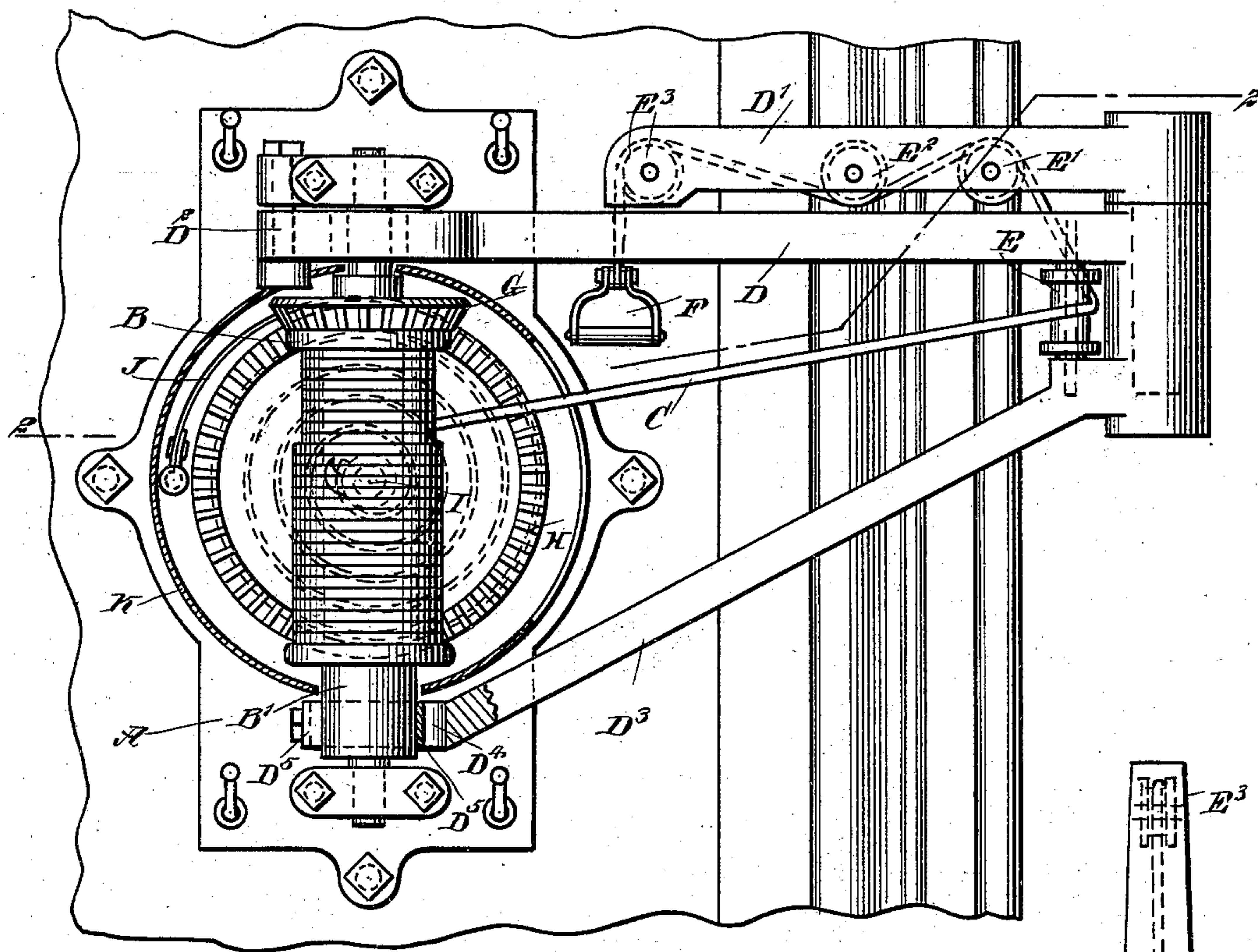
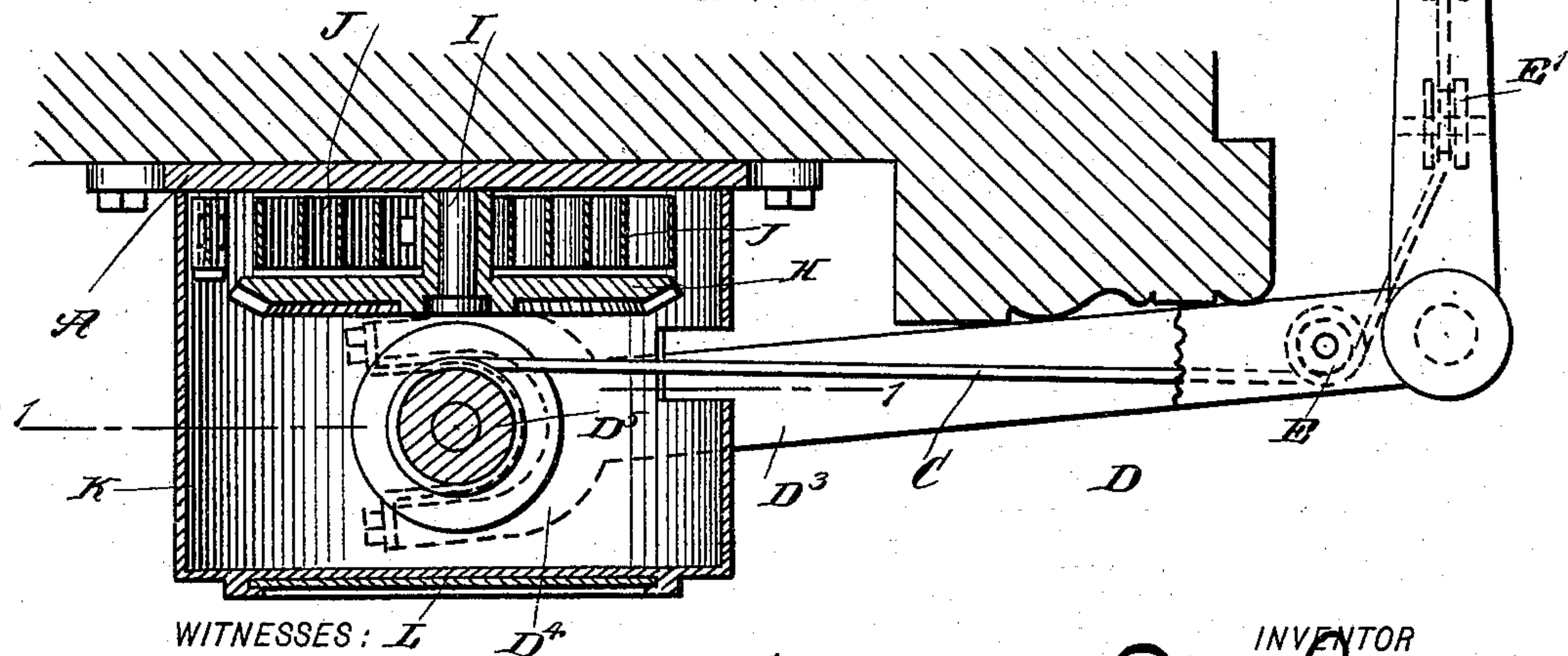


FIG. 2.



WITNESSES: L D^4

Donn Twitchell
Rev. G. Root

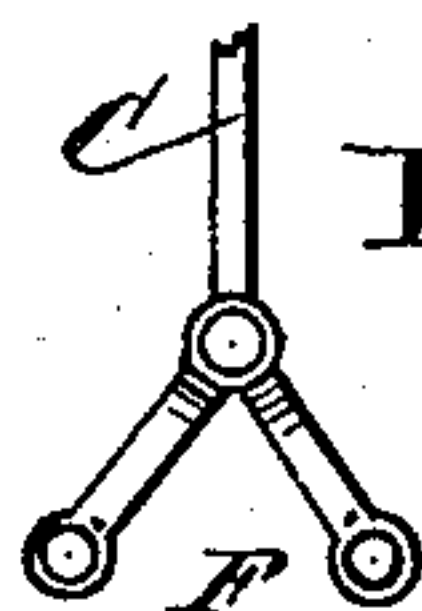


FIG. 3.

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DLUAREJ NORWOOD JERAULD, OF NEWPORT, KENTUCKY.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 637,615, dated November 21, 1899.

Application filed July 31, 1899. Serial No. 725,621. (No model.)

To all whom it may concern:

Be it known that I, DLUAREJ NORWOOD JERAULD, of Newport, in the county of Campbell and State of Kentucky, have invented a new and Improved Fire-Escape, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved fire-escape which is simple and durable in construction, arranged to take up very little room, and more especially designed for attachment to the inside of a room adjacent to a window, with means for extension through the window to allow a convenient and quick descent of a person at a rate of speed automatically regulated according to the weight of the person.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of my invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the improvement on the line 1 1 in Fig. 2. Fig. 2 is a sectional plan view of the same on the line 2 2 in Fig. 1 and with the extension-arm of the lever extended through the window, and Fig. 3 is a side elevation of the rope-handle.

The improved fire-escape is provided with a frame A, adapted to be secured to the wall of a building, preferably to the inside thereof, in a room adjacent to a window, as indicated in the drawings. On the frame A is journaled a vertically-disposed reel B, on which winds a rope, cable, band, or like device C, extending along a lever D around a pulley E, journaled at the free end of said lever, the rope then passing over and under brake-pulleys E' E² E³, journaled in an extension-arm D', pivoted on the free end of the lever D. On the end of the rope C is secured a suitable supporting device F, preferably in the shape of handles or stirrups, adapted to be taken hold of by the person desiring to descend from the room to the street below.

The extension-arm D' is normally folded on the lever D, but when the device is to be used then said extension-arm D' is swung into an angular position relatively to the lever D and extended through the window to the outside of the building, the end of the rope hanging downward a suitable distance from the face of the wall of the building, as shown in Fig. 2.

The lever D is fulcrumed at D² on the frame A and is provided with a brake-arm D³, formed at its free end with a fork D⁴, containing a brake-band D⁵, engaging the lower end B' of the reel B, so that when a person is supported on the device F and descends then the weight of said person causes the extension-arm D' and the lever D to move the brake-band D⁵ into firm frictional contact with the reel B at the lower end thereof, so as to brake the reel, and thereby check the speed of the descending person according to the weight of the latter. Thus it is evident that the weight of a heavy person will cause the brake-band D⁵ to engage the reel with more force than when a person of less weight descends, and consequently the reel is more or less braked according to the weight of the person descending.

In order to rewind the rope C on the reel B after a person has reached the street and released the device F, I provide the following device: On the reel B, preferably at the upper end thereof, is secured a bevel gear-wheel G, in mesh with a bevel gear-wheel H, mounted to rotate on a stud I, secured to the frame A, and on the hub of said gear-wheel H is secured the inner end of a spring J, secured at its outer end to the frame A, so that when the reel is rotated upon the descent of a person the spring J is wound up, and when the rope is released then the wound-up spring causes a rotation of the reel in an opposite direction to wind up the rope, so that the escape is again ready for use by another person. The rewinding device and the reel are preferably inclosed in a suitable casing K, attached to the frame A or forming part thereof, and having a looking-glass L in the front face of the casing. The frame A is also preferably provided with hooks for supporting hats, garments, &c.

When the device is not in use, the lever D, with its extension-arm folded, is preferably

swung to the left-hand side or away from the window-frame.

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

1. A fire-escape, comprising a reel, a lever pivoted adjacent to one end of the reel, and provided with a brake-arm engaging the other end of the reel, and a lowering device wind-
10 ing and unwinding on said reel and passing in engagement with said lever.

2. A fire-escape, comprising a reel, a lowering-rope winding on said reel and adapted to unwind therefrom, and a lever for guiding
15 the rope from the reel to the outside of the building, said lever having a forked brake-arm straddling one of the reel-trunnions and provided with a brake-band engaging said

trunnion, substantially as shown and described.

3. A fire-escape, comprising a reel, a lowering-rope winding on said reel and adapted to unwind therefrom, a lever for guiding the rope from the reel to the outside of the building, said lever having a brake-arm with a
25 brake-band engaging said reel, and a rewinding device for said reel and comprising a reel gear-wheel secured on the reel, a spring, and a second gear-wheel in mesh with the first-named gear-wheel and connected with one
30 end of said spring, as set forth.

DLUAREJ NORWOOD JERAULD.

Witnesses:

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L. H. WILSON.