

No. 712,848.

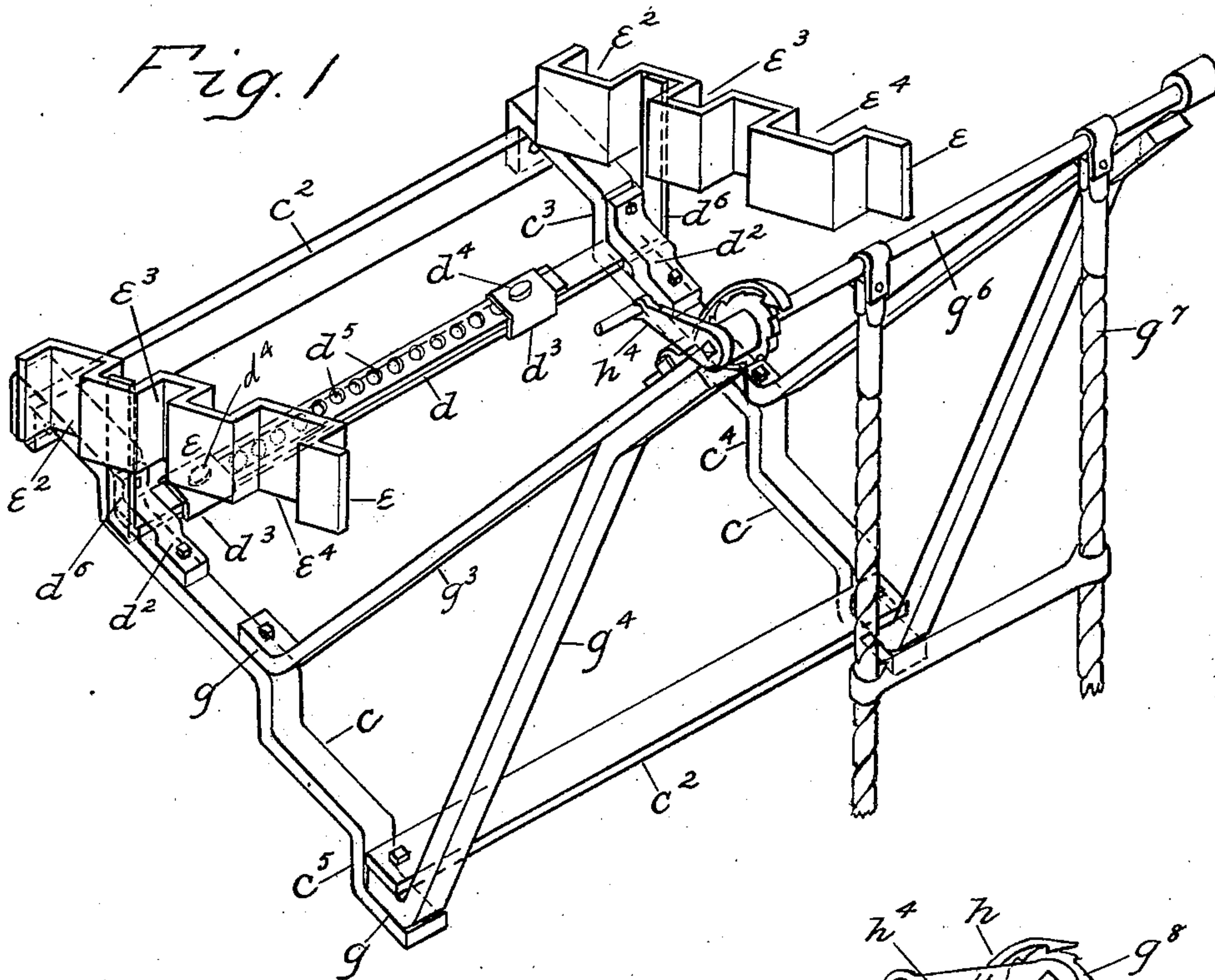
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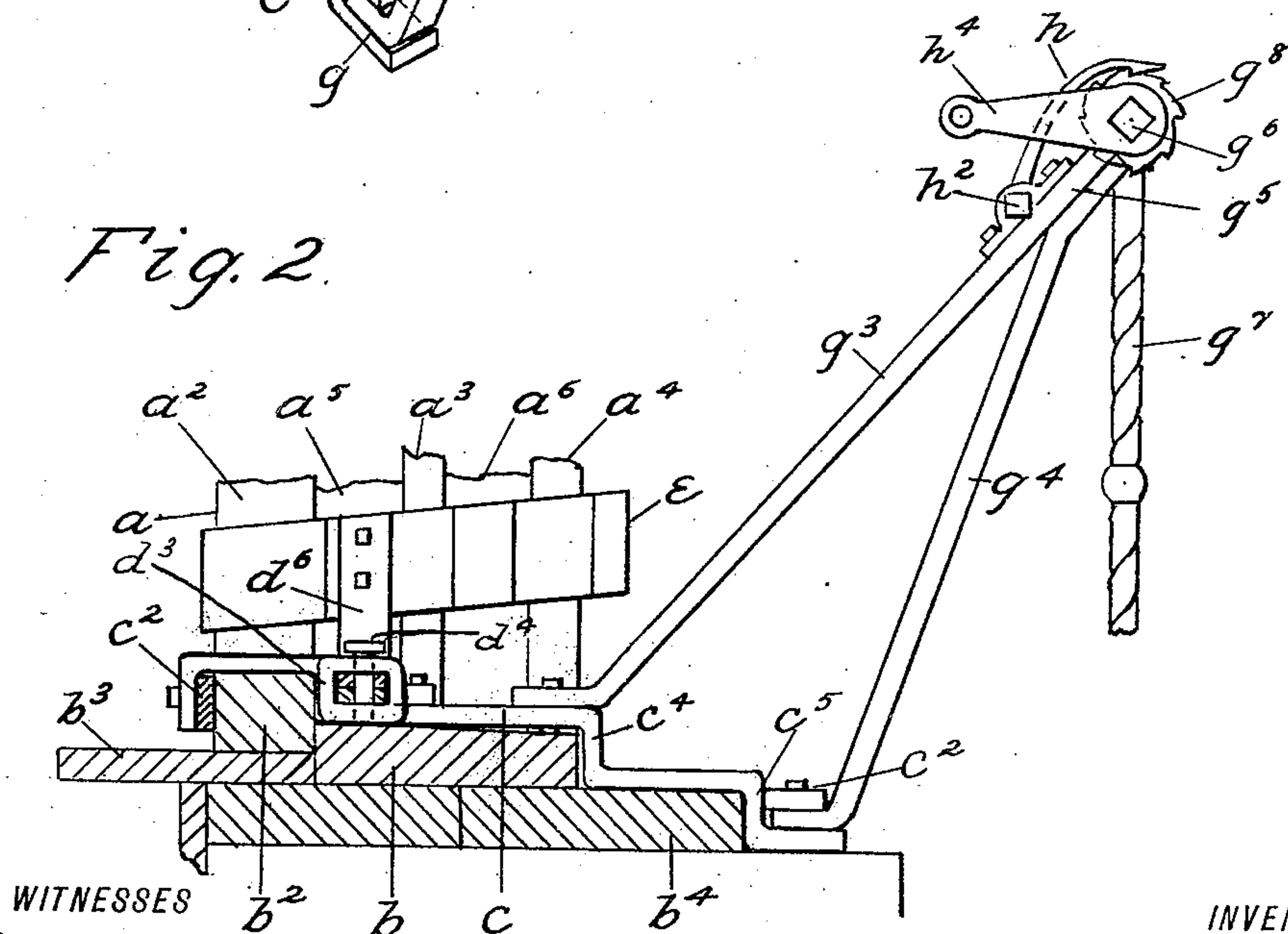
FIRE ESCAPE.

(Application filed Feb. 17, 1902.)

(No Model.)



*Fig. 2*



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 712,848, dated November 4, 1902.

Application filed February 17, 1902. Serial No. 94,358. (No model.)

*To all whom it may concern:*

Be it known that I, SUNDEL RABINOWITZ, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved fire-escape device which may be easily connected with the bottom portion of a window-frame whenever desired, so as to afford easy egress and descent from such window whenever necessary.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same reference characters in each of the views, and in which—

Figure 1 is a perspective view of my improved fire-escape device, and Fig. 2 a transverse section of the bottom portion of a window-frame and the bottom of the fire-escape device which is connected therewith.

In the drawings forming part of this specification, reference being made to Fig. 2, I have shown a cross-section of the bottom portion of an ordinary window-frame, and one side thereof is designated by the reference character *a*. This frame or the sides thereof is provided with the usual beads or strips *a*<sup>2</sup>, *a*<sup>3</sup>, and *a*<sup>4</sup>, between which are the spaces *a*<sup>5</sup> and *a*<sup>6</sup>, in which in practice the window-sashes are placed. The bottom of the window-frame, as shown in the drawings, consists of a main transverse central portion *b*, with which is connected a transverse front strip or bead *b*<sup>2</sup>, which corresponds with the front bead or strip *a*<sup>2</sup> at the opposite sides of the window-frame, and secured to the front or inner side of the part *b* is preferably placed the usual plate *b*<sup>3</sup>, and rearwardly thereof is a ledge-plate *b*<sup>4</sup>. The details of the construction of the window-frame, however, form no part of my invention and are thus described only for the purpose of showing the preferred method for connecting my improved fire-escape with said frame.

In the construction of my improved fire-

escape I provide a frame which, as shown in the drawings, comprises two parallel side bars *c*, which are connected by transverse bars *c*<sup>2</sup>, and the parallel side bars *c* are curved downwardly at their front or inner ends, and with this portion the front transverse bar *c*<sup>2</sup> is connected, and said side bars *c* are also provided with downwardly-directed angular portions at *c*<sup>3</sup>, *c*<sup>4</sup>, and *c*<sup>5</sup>, whereby the frame of the fire-escape is so made in cross-section as to fit closely to the bottom of the window-frame. The exact construction of this frame, however, is immaterial, all that is necessary in this connection being to provide a frame which will conform to and closely fit the bottom of a window-frame, and in the form of construction shown when the device is placed in a window the front transverse bar *c*<sup>2</sup> rests against the horizontal bead or strip *b*<sup>2</sup> at the bottom of the window-frame.

The main frame of the device is provided near the front portion thereof with transversely-adjustable bars *d*, which are connected by bands *d*<sup>3</sup>, having pins or screws *d*<sup>4</sup>, which pass therethrough and through suitable holes *d*<sup>5</sup> in the bars *d*, and by means of this construction the said bars *d* may be adjusted transversely of the main frame of the device and locked at any desired point of adjustment. The bars *d* are provided at their opposite ends with upwardly-directed members *d*<sup>6</sup>, and connected therewith at each side is a locking device *e*, and these locking devices *e* consist of metal plates or bars bent to form yoke-shaped recesses *e*<sup>2</sup>, *e*<sup>3</sup>, and *e*<sup>4</sup>, which open outwardly and which are adapted to receive or engage the corresponding beads or strips *a*<sup>2</sup>, *a*<sup>3</sup>, and *a*<sup>4</sup> at the opposite sides of the window-frame, and the locking devices *e* are preferably connected with the parts *d*<sup>6</sup> of the bars *d*, so that when the device is in the window-frame, as shown in Fig. 2, the said locking devices *e* will range upwardly and outwardly transversely of the sides of the window-frame, this arrangement being preferred in order to increase the power of these locking devices when a weight is placed on the fire-escape, as hereinafter described.

Connected with the rear portion of the transverse bars *c* of the main frame, as clearly shown at *g*, are upwardly and outwardly directed bars *g*<sup>3</sup> and *g*<sup>4</sup>, which are connected at



their upper outer ends, as shown at  $g^5$ , and mounted in the upper ends of the support thus formed is a shaft  $g^6$ , with which is connected a rope ladder  $g^7$ . The shaft  $g^6$  is provided at one end with a ratchet-wheel  $g^8$ , and a pawl  $h$  is pivoted to one side of the support of the shaft  $g^6$ , as shown at  $h^2$ , and operates, in connection with said ratchet-wheel, so as to prevent the unwinding of the rope ladder when it is wound on the shaft  $g^6$ , and said shaft  $g^6$  is provided with a crank  $h^4$ , by which the rope ladder may be wound up whenever desired. In the drawings the rope ladder is shown as unwound; but it will be understood that this ladder may be of any desired length and may be wound on the shaft  $g^6$  whenever desired by lifting the pawl  $h$  and turning said shaft to the right.

The height of the shaft  $g^6$  from the sill of a window is preferably in practice about three feet, and the width of the main frame may be substantially the same, and it will be understood that when this device is to be used both of the window-sashes are raised and the main frame of the device is dropped into position in the bottom of the window-frame, after which the bars  $d$  are adjusted laterally so as to force the locking device  $e$  into engagement with the beads or strips  $a^2$ ,  $a^3$ , and  $a^4$  at the opposite sides of the window-frame, and when said locking devices are thus forced in position and the bars  $d$  are secured by the pins  $d^1$  any necessary weight may be thrown onto the rope ladder  $g^7$  without disconnecting the device from the window-frame.

Any suitable means may be provided for adjusting the bars  $d$  laterally, and many changes in and modifications of the construction herein described may be made without

departing from the spirit of my invention or sacrificing its advantages.

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

1. A fire-escape comprising a frame adapted to be placed on the bottom of a window-frame and to engage the transverse members thereof, laterally-adjustable bars mounted in said frame, clamping devices connected with said bars and adapted to engage the side beads, or strips of the window-frame, outwardly and upwardly directed supports connected with the first-named frame, a shaft mounted in said supports and adapted to support a rope ladder, substantially as shown and described.

2. In a fire-escape, a frame the bottom portion of which is so formed as to engage the bottom transverse members of a window-frame, laterally-adjustable bars mounted in said frame and provided at their outer ends with upwardly-directed members, clamps or locking devices connected with said members and adapted to engage the side beads or strips of the window-frame transversely thereof, outwardly and upwardly directed supports connected with the first-named frame, a shaft mounted in said supports and adapted to support a rope ladder, means for turning said shaft, and devices for locking said shaft, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 13th day of February, 1902.

SUNDEL RABINOWITZ.

Witnesses:

F. A. STEWART,  
C. E. MULREANY.