

(No Model.)

2 Sheets—Sheet 1.

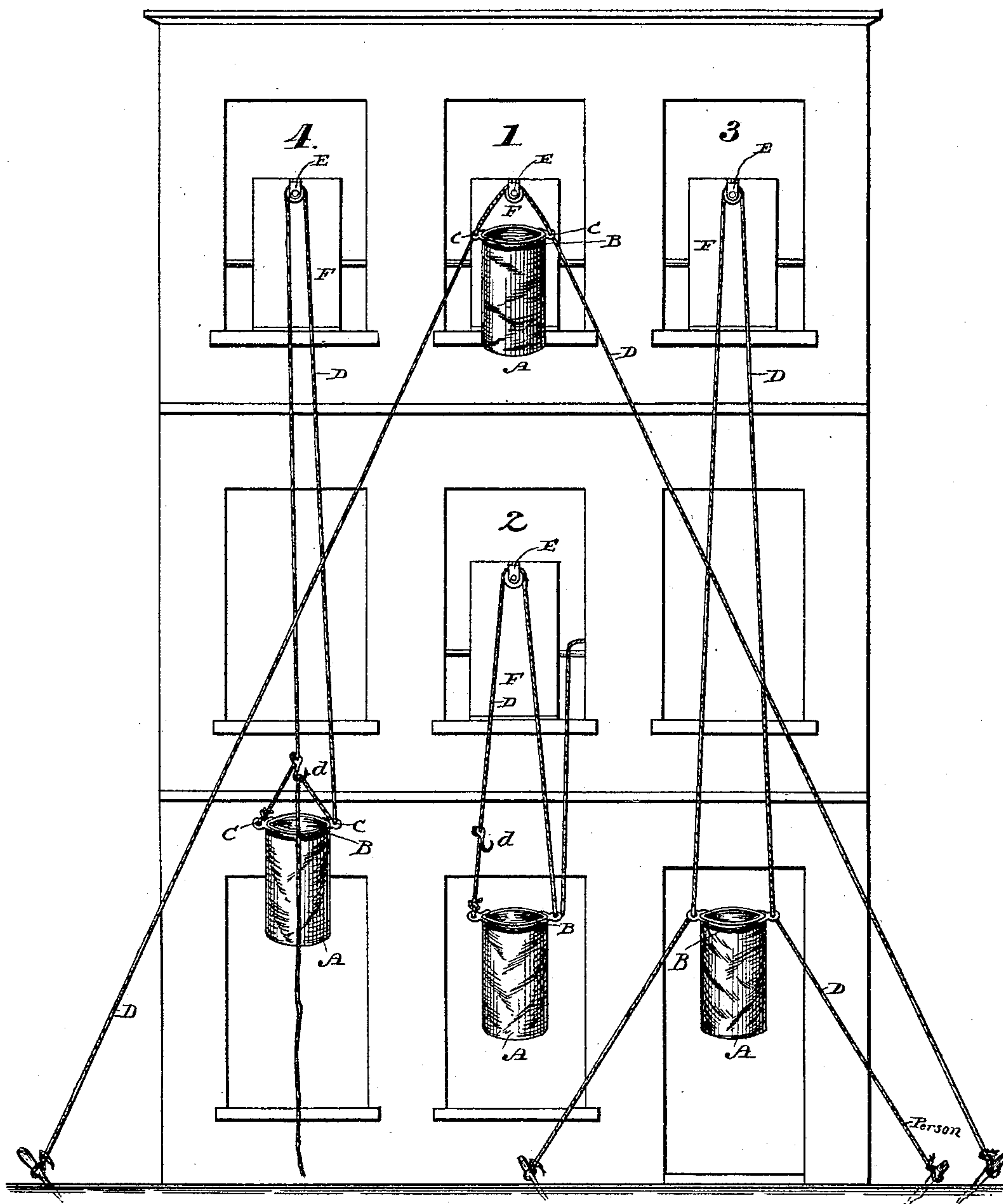
A. HUTCHINGS.

FIRE ESCAPE.

No. 346,406.

Patented July 27, 1886.

Fig. 1.



Witnesses

H. W. Elmer
Fred V. Fischer

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Arthur Hutchings

By his Attorneys

C. A. Snowdon

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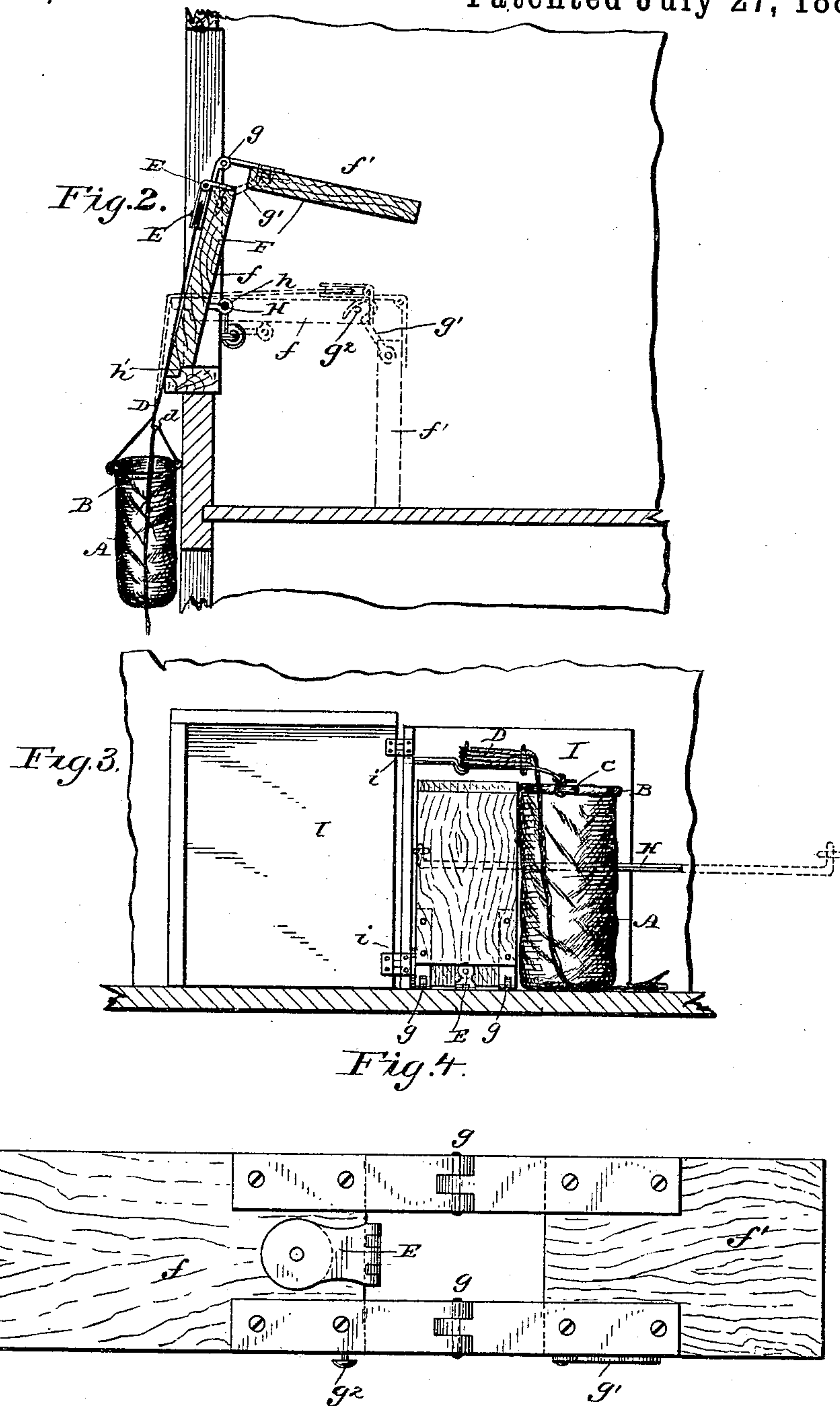
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UNITED STATES PATENT OFFICE.

ARTHUR HUTCHINGS, OF BUFFALO, NEW YORK.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 346,406, dated July 27, 1886.

Application filed March 25, 1886. Serial No. 196,544. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR HUTCHINGS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Fire-Escapes, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in fire-escapes; and it consists of the peculiar and novel construction and arrangement of parts, substantially as hereinafter fully set forth, and specifically pointed out in the claims.

The object of my invention is to provide improved means whereby a car or receptacle can be lowered either by persons standing on the ground, in the building, or in the car or receptacle itself; to provide means for assisting the occupants or persons in the building in getting in the car or receptacle; to provide means for wholly concealing the entire apparatus within the building when it is not in use, and to provide means which shall be simple and durable in construction, effective, secure, and easy of operation, readily applied and adjusted for use, and cheap and inexpensive of manufacture.

In the accompanying drawings, Figure 1 is an elevation of a building having my invention applied thereto, showing the ropes in their adjustments for lowering the car to the ground by the person in the car, or an attendant in the room from which the car descends. Fig. 2 is a sectional view through the folding platform in position when the car is descending, showing in dotted lines its position when the person ascends onto the same to enter the car. Fig. 3 is a view of the cabinet in its unfolded position, and Fig. 4 is a detail view of the platform.

Referring to the drawings, in which like letters of reference indicate corresponding parts in all the figures, A designates the car or receptacle of my improved fire-escape, which is made in the shape of a bag, and of canvas or other suitable strong material. The mouth of the receptacle has a stout and strong leather or metallic band or ring, B, secured to the car, to prevent the same from collapsing when the occupant is in the car, and to the band are se-

cured the bail-ears or eyes C, which are located at diametrically-opposite points in the circumference of the ring or band, to normally maintain the bag-like receptacle or car in its proper position and obviate the danger of the same becoming inverted when occupied.

D designates the rope or cord that lowers and raises the car, one end of which first passed through one of the bail-ears C on the car, then through a pulley, E, on the platform F, and then through the other bail-car C on the car.

In the arrangement of the rope shown in the device at 1 in Fig. 1 of the drawings, the free ends of the rope D are passed to the ground and there grasped by two persons. When the car descends, the persons who have hold of the ends of the rope walk toward one another, and thus allow the car to be lowered by the weight or load therein, and to elevate the car the persons walk away from each other.

In the arrangement shown at 2 in Fig. 1 of the drawings, one end of the rope is connected, by means of a hook, d, or otherwise, to one of the bail-ears C on the car. It then passes up to and over the pulley E, then to the other bail-car C on the car, and then back again to the window from whence the car started. The free end of the rope is grasped by a person standing at the window from whence the car started, and by paying out the rope the car descends, and when the rope is pulled into the building the car is raised.

At 3 of Fig. 1 one end of the cord or rope is secured to a stake, post, or other convenient point in the street, or the middle or on the opposite side of the same on which the building is located. The rope then passes through one of the bail-ears C on the car, and then through the pulley E and the other bail-car C on the car to the ground, where it is grasped by one or more persons to lower the car or raise it. It will thus be seen that the rope can be adapted to various arrangements, to accommodate the circumstances of the case, and that the car can be operated by one or more persons, either on the ground or in the building.

The platform F is made in two sections, f f', which are connected together by hinged metallic straps or bands g, of any suitable construction, and when the device is in use, as

shown in Fig. 2 of the drawings, the pivoted hook g' of the section f' engages the headed pin g^2 of the section f , to hold and maintain the sections at right angles to each other.

5 The section f has eyes or loops h , that are pivotally and loosely connected to a bar or rod, H , which is secured in the wall of the building at any suitable point to permit a person to readily pass out of the window of the platform
10 when it is turned to a horizontal position. The pulley E is loosely journaled in a bracket, e , that is hinged or pivoted on the section f of the platform, so that it can be compactly folded with the sections $f f'$, the straps g extending
15 beyond the contiguous ends of the platform-sections, to separate the latter and provide a space to receive the pulley E and its bracket when the said sections are folded upon each other.

20 In the case of fire the platform is first adjusted to the position shown in dotted lines in Fig. 2, to enable the person or occupant to readily ascend the same and get into the car, after which the platform is turned or adjusted
25 to the position shown in full lines in said figure, to cause the pulley E to assume an upright position and guide or hold the rope as the car travels up or down, the person when he gets into the car grasping the window-
30 frame to steady himself and prevent falling. When the platform assumes the position shown in Fig. 2 in full lines, the section f turns on the rod H , and the notched edge h' thereof rests on the window-sill, to prevent further forward
35 movement of the platform, which is liable to prematurely precipitate the car to the ground, and the platform is held in this position by the load or weight in the car.

When the device is not in use, the sections
40 are folded one upon the other, and they (the car and rope) are inclosed within a cabinet or case, I , that is secured in the room in proximity to the window from which the car descends. This cabinet has one of its walls rigidly
45 secured in place, and the other wall is hinged thereto, as at i , so as to be readily opened to store the apparatus away and completely conceal the same, or remove it from the cabinet, so that it can be instantaneously used.
50 The cabinet is thus made in two folding sections, and it can be finished in any desired form.

The operation of my invention will be readily understood from the foregoing description,
55 taken in connection with the drawings.

I do not desire to limit myself to the exact details of construction and form and proportion of parts herein shown and described as an embodiment of my invention, as I am aware
60 that many changes therein can be made without departing from the spirit thereof.

I have shown still another arrangement of the elevating-rope at 4 in Fig. 1 of the drawings, by means of which the occupant of the
65 car can raise or lower himself. One end of the elevating-rope is made fast to one of the bail-ears of the car, and the said end of the rope

has rigidly affixed thereto a hook, d , for a purpose presently described. The rope passes over the sheave or pulley E , then through the
70 outer bail-ear on the opposite side of the car, and finally over the hook d on the other end of the rope, which is secured to the car. The free end of the elevating-rope can be conveniently grasped by the occupant of the car, who
75 can thus lower and raise himself very readily and with entire safety.

By the use of the pivoted folding platform a person can readily and quickly climb up into the window without danger of falling out
80 of the same, as the platform then lies wholly within the room or apartment from whence the person seeks to make his escape, and when the platform is inverted or turned on the rod
85 H to its elevated position a secure support and guide is provided for the traveling car, as the pulley E is then turned to a vertical position, and permits the rope D to pass freely over the same.

Although I have shown and described the
90 traveling car as provided with the bail-ears or eyes C , still I do not wish to be confined to the use of the same, as it is obvious that pulleys or like equivalent devices can be substituted therefor.

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

1. The combination, in a fire-escape, with the traveling-car and the rope therefor, of a
100 platform consisting, essentially, of two sections hinged together and adapted to be folded one upon the other, or arranged at right angles to and connected with each other, substantially as described.

2. In a fire-escape, the combination, with the traveling car and the rope therefor, of a
105 platform carrying a pulley for the rope, and having the two sections arranged at an angle to each other, one of the sections being pivoted on a suitable support, whereby the platform can be turned to a horizontal position to facilitate the escape of the passenger through the window, or be inverted to adjust the pulley in position for the free passage of the rope,
115 substantially as described.

3. In a fire-escape, the combination, with a rod or other suitable support, H , of a platform consisting of two sections hinged together at
120 one end and adapted to be folded upon one another, and a locking device for holding the platform-sections at right angles to each other when adjusted for use, substantially as described.

4. In a fire-escape, the combination, with a
125 rod, H , a traveling car, and a rope therefor, of a platform comprising the right-angled sections $f f'$, connected with the rod and carrying a pulley for the car-rope, said platform being capable of free movement or play on the rod,
130 to adjust it to a horizontal position to facilitate the escape of the passenger through the window, or to an inverted or upright position to turn its pulley into position for the free

passage of the rope over the same, substantially as described.

5 In a fire-escape, a car and the rope, in combination with a sectional foldable platform and a rod or bar on which one of the sections is pivoted, substantially as described.

10 6. In a fire-escape, a car and the rope, in combination with a pivoted platform having two sections hinged together and adapted to be folded, one of the sections having a notched edge, substantially as described.

7. In a fire-escape, the combination of an adjustable platform, a pulley carried by the

platform, a car provided with a band and the eyes, and an elevating-rope passing over the pulley and connected with the car, a hook, *d*, being affixed to the rope near one end, substantially as described. 15

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses. 20

ARTHUR HUTCHINGS.

Witnesses:

FRED SPURLING,
HELEN E. BUCKLIN.