

**No. 709,374.**

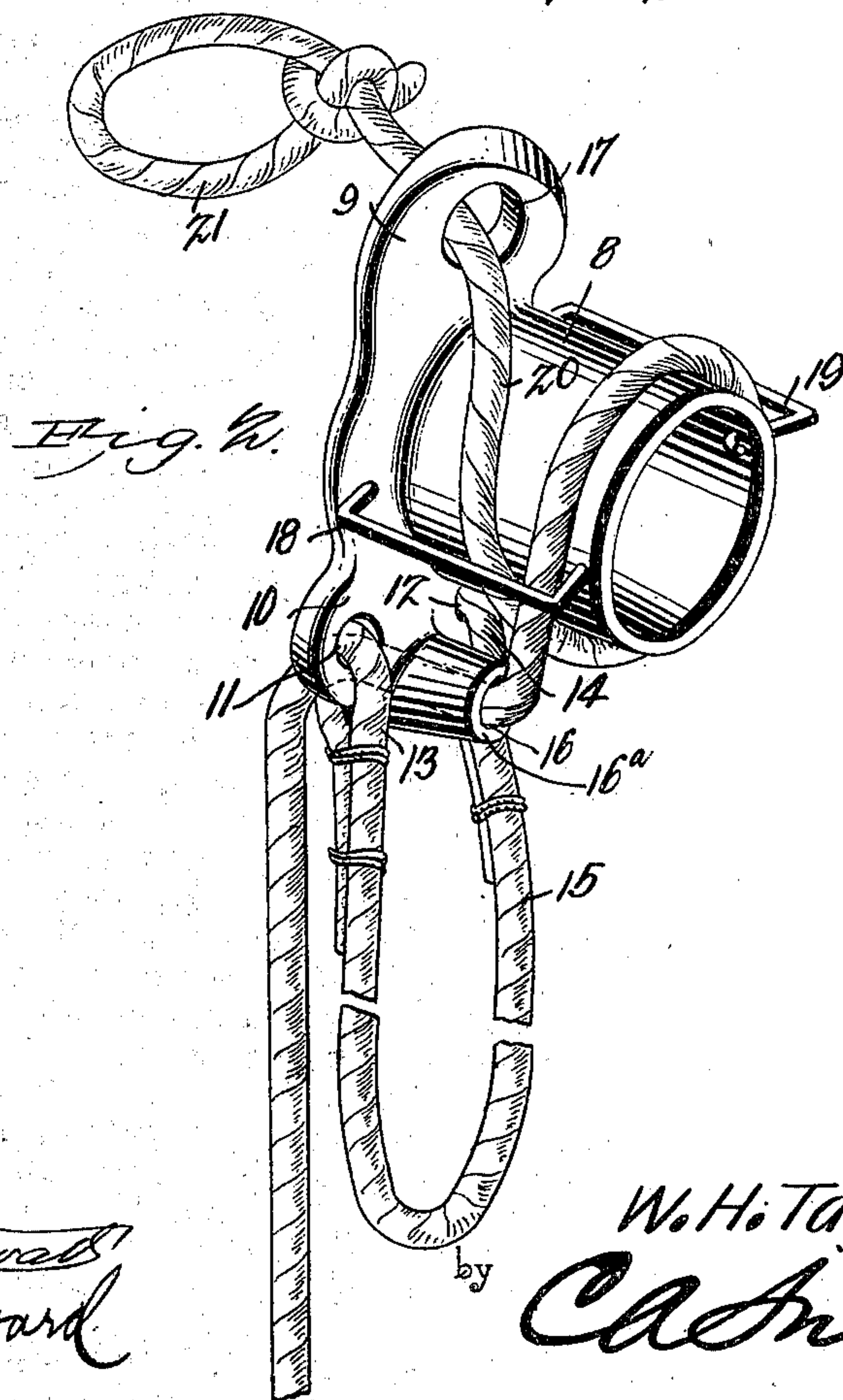
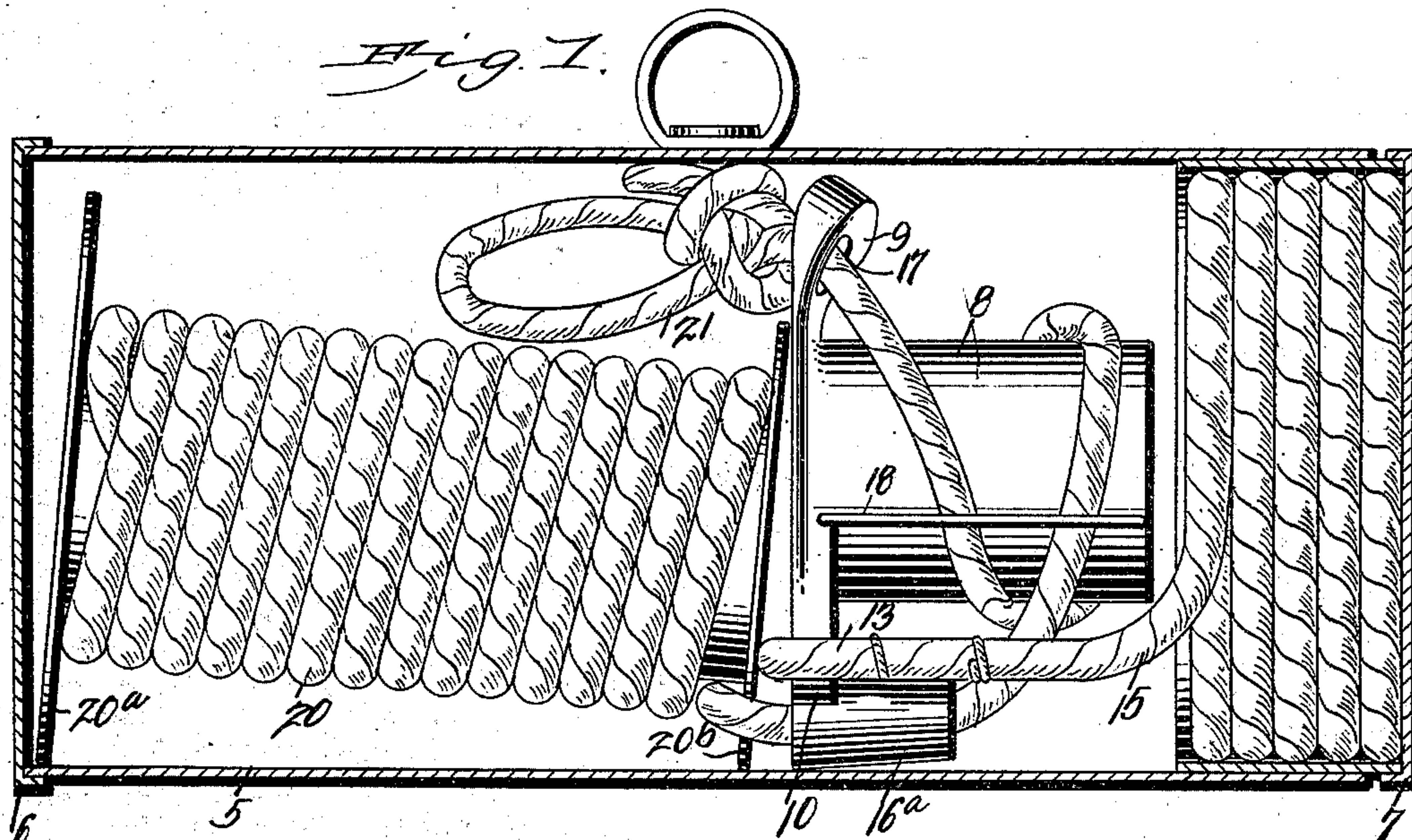
**Patented Sept. 16, 1902.**

**W. H. TAYLOR.**

# FIRE ESCAPE.

(Application filed Mar. 1, 1902.)

(No Model.)



Witnesses

Witnesses  
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# UNITED STATES PATENT OFFICE.

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## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 709,374, dated September 16, 1902.

Application filed March 1, 1902. Serial No. 96,306. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. TAYLOR, a citizen of the United States, residing at Kewanee, in the county of Henry and State of Illinois, have invented a new and useful Fire-Escape, of which the following is a specification.

This invention relates to devices adapted to be employed by persons in escaping from burning buildings and other similar localities, and has for its object the production of a portable device which may be readily carried by travelers in a valise or trunk, together with the other goods, and which can be easily and quickly arranged for use or which may be attached permanently in rooms adjacent to windows or other apertures and be at all times in condition for instant use.

The device is so constructed that it may be entirely inclosed in a small compact casing, preferably of cylindrical form, and adapted to be carried in a valise or trunk, together with other traveling appurtenances, or to be suspended permanently in rooms adjacent to a window or other aperture or otherwise disposed, and for the purpose of illustration I have shown it in the drawings in Figure 1 thus disposed in a cylindrical closure, the closure being in longitudinal section. Fig. 2 represents the brake member, body-sustaining member, and a portion of the supporting-cable in perspective.

The casing or closure is shown at 5, with one end 6 closed and preferably with a flanged cover 7, engaging the open end, as shown.

The brake member consists of a drum portion 8, preferably hollow to reduce the weight, formed at one end with a head 8<sup>a</sup>, having flanges or projections 9 and 10 on opposite sides of the drum, the said flanges being perpendicular to the axis of the drum, as shown. The flange 10 is provided with two apertures 11 and 12, adapted to support the ends 13 and 14 of a loop 15 of rope, webbing, or other suitable material, the loop being long enough to afford adequate support to the person who is to employ the device. This loop is shown in the drawings with a portion cut away; but it will be understood, of course, that the loop may be of any length or of any form and with transverse supports, if required, or a basket belt, slinging harness, or other suitable sus-

taining means may be substituted for the loop, if preferred. All of these different sustaining means being in common use in fire-escapes do not require further illustration, as they are all well-known equivalents for the loop, as shown. The flange 10 is also provided with a central aperture 16, extended by a tubular projection 16<sup>a</sup> to increase it longitudinally and disposed substantially parallel with the axis of the drum. The flange 9 is likewise provided with a central aperture 17, the flange being preferably twisted or turned at an angle to the axial line of the drum 8 and with its edges rounded to assist in guiding the cable to prevent either undue strains or crimping action on the cable. At the opposite sides of the drum 8 are arranged guide-loops 18 and 19, as shown.

The sustaining-cable is represented at 20 with a loop 21 or other means upon its upper end to provide for attaching it to a permanent support, such as a hook in the ceiling or window frame or sill, or to some suitable piece of furniture or other article and will be of any suitable length to enable the user to reach the ground. The cable is conducted first through the eye 17, thence around the drum 8 several times and beneath the loops 18 and 19 at each turn, and thence through the tubular aperture 16 16<sup>a</sup>. The brake member thus exerts a tension upon the cable to retard or check the movement of the occupant of the sustaining member or to support them in a stationary position, if required. When not in use, the surplus length of cable will be wound around a reel 20, as shown in Fig. 1, and the loop or carrier 15 coiled up and the whole inserted into the casing 5, as shown in Fig. 1. In this condition the whole device will be embraced within a very small compass for convenience of transportation, as before stated. The reel is formed with two flanges 20<sup>a</sup> and 20<sup>b</sup> on its ends, the flange 20<sup>a</sup> conforming somewhat closely to the interior of the body 5 of the casing, so as to nearly fill it. This forms a support to the coils of the cable and enables them to be removed from the casing and maintained without disintegration and the tendency of the coils to slip off from the reel obviated.

The reel 20, with the coiled cable thereon, will be first inserted into the casing with the



large flange 20<sup>a</sup> inward, so that when the device is to be used the brake and loop members may be removed without necessarily disturbing the drum and the cable. When the device is to be used, the loop and brake member are removed from the casing, together with the upper or loop end of the cable, and the end 21 attached to some permanent and secure part of the room by a hook or other means, as before stated. The drum 5, with the surplus cable 20 coiled thereon, is then removed from the casing and thrown from the window, the cable freely uncoiling from the reel and any tendency to tangle thereby obviated. In this connection the importance of the large flange 20<sup>a</sup> becomes apparent, as it is of the first importance to secure the free unchecked uncoiling of the cable that the coils shall be preserved intact, and this, as before stated, is efficiently accomplished by means of the larger flange 20<sup>a</sup>. The operator then enters the loop 15 or other sustaining means and lowers himself from the window or other opening, grasping the cable just below the brake-drum. The weight of the occupant of the sustaining means will cause a sufficient strain upon the cable, where it passes through the apertures 16 and 17 and around the drum 8 and beneath the guard-wires 18 and 19, to prevent the brake member from running down the cable, so that if left to itself the sustaining means would remain stationary. If, however, the occupant of the loop 15 simply "eases up" upon the cable below the aperture 16, the tension will be reduced sufficiently to permit the brake means to move down the cable as fast as the occupant may desire, the speed being under the complete control of the operator by means of his grasp upon the cable. Two turns of the cable 20 around the drum 8, as shown, will generally be sufficient to cause the requisite tension; but a greater or lesser number of the turns may be employed, as circumstances may require.

The loops 18 and 19 serve an important function, as they effectually guard the cable coiled upon the drum 8 and obviate all danger of the slippage of the coils from the free end of the drum.

This forms a very complete, cheap, and simple device which may be employed by any

person who may require it and which will not require the exercise of any particular skill to adjust or operate it.

The brake member will generally be formed of malleable iron or other metal and may be nickel or silver plated, japanned, or otherwise ornamented and may be of any suitable size or material and may be modified in minor details without departing from the spirit or scope of the invention.

Having thus described the invention, what is claimed as new is—

1. A fire-escape comprising a brake-drum having a head at one end, with flanges 9, 10, respectively, above and below the drum and perpendicular thereto, said flange 9 having an opening 17, and said flange 10 having an elongated opening 16, substantially parallel with the drum, in combination with a cable passed through the said openings and having one or more turns around the drum, substantially as described.

2. A fire-escape comprising a brake-drum having a head at one end, with flanges 9, 10, respectively, above and below the drum and perpendicular thereto, said flange 9 having an opening 17, and said flange 10 having an elongated opening 16, substantially parallel with the drum, in combination with a cable passed through the said openings and having one or more turns around the drum, and means depending from the flange 10, to sustain the user.

3. A fire-escape comprising a brake-drum having a longitudinal guide-loop on one side thereof, and having a head at one end with flanges, 9, 10, respectively above and below the drum and perpendicular thereto, said flange 9 having an opening 17, and said flange 10 having an elongated opening 16 substantially parallel with the drum, in combination with a cable passed through the said openings and having one or more turns around the drum, within the guide-loop thereof, substantially as described.

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

WILLIAM H. TAYLOR.

Witnesses:

GEO. A. ANTHONY,  
L. M. BUCHANAN.