

UNITED STATES PATENT OFFICE.

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FIRE-ESCAPE APPARATUS.

1,246,655.

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To all whom it may concern:

Be it known that I, ABRAM L. PLUSH, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented 5 a certain new and useful Improvement in

Fire-Escape Apparatus, of which the following is a specification.

This invention relates to fire-escape apparatus and more particularly to a cabinet for 10 holding and concealing the apparatus when not in use.

The object of the invention is to provide a cabinet or receptacle adapted to be secured in fixed position adjacent either side 15 of a window or like opening in such a man-

- ner that the life saving appliance is readily accessible for use in emergencies but at other times the entire apparatus is hidden from view. In devices of this character as
- 20 heretofore constructed, it has been customary to secure a supporting hook to the woodwork or wall adjacent the opening, said hook having one end of the escape device secured thereto while the remainder of the
- 25 device is suitably coiled within a receptacle located in the vicinity of the supporting hook. In such devices the hook support is entirely visible outside of the receptacle, making it necessary to expose also a por-
- 30 tion of the cable and thereby presenting an unsightly as well as cumbersome appearance. It is one object of my invention to provide a cabinet of attractive appearance which is adapted not only to conceal the
 35 entire life saving appliance but also to in-
- close the supporting device for the end of the cable.

It has as a further object to provide a life belt carrier adapted for sliding move-

40 ment in either direction upon a suspended cable, the said carrier being controlled by friction which is regulated at will by the user of the device.

It further consists of other novel features 45 of construction, all as will be hereinafter fully set forth.

For the purpose of illustrating my invention, I have shown in the accompanying drawings one form thereof which is at pres-

50 ent preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously
55 arranged and organized and that my in-

vention is not limited to the precise arrange-

ment and organization of these instrumentalities as herein shown and described.

Referring to the drawings:

Figure 1 represents a front elevation of 60 the receptacle showing the lid open to expose the interior construction of the receptacle; Fig. 2 represents a section on line 2-2 of Fig. 1; Fig. 3 represents a front elevation of the friction controlled carrier 65 embodying one feature of my invention; Fig. 4 represents a side elevation of the same.

Similar numerals of reference indicate corresponding parts.

1 designates the body portion of the cabinet or receptacle of my invention, the same having a door 2 hinged or pivoted thereto in any suitable manner and adapted to form a closure for the body portion 1. The cabi-75 net is substantially of elongated rectangular form, the door of which is preferably semicylindrical in form to give a finished appearance to the cabinet as well as to inclose the entire apparatus. 3 designates a pair of elongated slots, preferably located in the rear wall of the body portion and respectively adjacent its ends so that the cabinet may be located at the right or left hand side of the window opening according to reguirements.

It will therefore be apparent that the slots 3 provide means for mounting the cabinet in a reversible manner so that the cabinet may be positioned at either side of a win- 90 dow opening, while the door will open away from the window, allowing free unobstructed use of the rope and its adjuncts. Furthermore, by arranging the slots transversely with respect to the longitudinal axis 95 of the cabinet it is possible to adjust the cabinet laterally without moving the fixture, thereby insuring proper relation of the cabinet and the window frame.

4 designates a suitable fixture such as a 100 hook fixed to the wall or like convenient support and adapted to retain and hold one end of the flexible escape cable 5, while the opposite end may be freely suspended outside the window or opening. The cabi-105 net is placed in its operative position by first positioning it, as indicated in dotted lines in Fig. 1, so that the supporting fixture 4 may be inserted through the desired opening 3 and well within the body portion of the 110 cabinet. The cabinet is now swung to its substantially vertical operative position and

fixed to the wall by means of screws 6 or like fastening devices. In this position of the cabinet the flexible cable 5 may be attached at one end to the device 4 and readily 5 coiled within the cabinet ready for use when necessary. When the door is brought to its normal closed position the entire appliance, including the supporting fixture, is concealed within the cabinet and the latter con-

10 sequently presents an attractive appearance with little suggestion of its real purpose or use.

7 designates generally a carrier comprising side bars 8 suitably spaced apart and 15 connected by integral bridge pieces 9, a centrally disposed annular pulley 10 and inter-mediate bridge members 11. The parts 9 and 11 are preferably curved in a suitable manner to form guide surfaces for the cable 20 5 while the pulley 10 is suitably grooved for a similar purpose. It will be noted that the ends of the carrier are respectively offset with respect to each other in order to provide for one turn of the cable being taken 25 about the pulley, whereby the frictional resistance to free sliding movement of the carrier upon the cable is materially increased. The carrier 7 is mounted upon the cable 5 by passing an end of the latter over one of 30 the bridge pieces 9, next beneath the adjacent intermediate member 11 and then around the pulley 10 making one complete turn. The cable leaves the opposite side of the carrier in the same manner, first passing un-35 der the intermediate member 11 and over the end piece 9. This construction affords

- a simple and effective means for slidably supporting the carrier upon the cable since the carrier is free to move along the cable 40 under a weight sufficient to overcome the friction and the speed of its movement is controlled entirely by the automatic clamping action of the carrier. Thus, to increase the friction and retard the movement of
- 45 the carrier the free end of the cable 5 is drawn taut while a slackening of the cable correspondingly decreases the friction and permits the carrier to run more freely, but in any event the friction is sufficient to al-50 low the carrier to ride downward upon the cable under the weight of a person but not

with sufficient speed to cause injury.

12 designates a belt looped through the opening of the pulley 10 in order to support 55 a person from the carrier, the said belt be-ing adjustable by means of the slip ring 13 carried thereon.

In the operation of the device the cabinet is opened and the free end of the cable 60 thrown out of the window. The user now adjusts the belt about the body under the arms, steps out of the window and is carried down the cable by the sliding action of the friction carrier. The downward movement 65 may be accelerated by grasping the cable

below the carrier and causing the cable to slacken. In a similar manner the carrier may be stopped by pulling or causing the cable to tighten as will be understood. Since the carrier is adapted to slide in either di-70 rection upon the cable it will be apparent that the cable may be reversed end for end and thus provide a means for successively lowering a number of people.

In cabinets as heretofore constructed it has 75 been necessary to provide an opening in the side walls or ends to permit the passage of the cable for its attachment to the supporting fixture, thereby exposing the cable to dampness and changes in atmospheric condi-80 tions. When such a cabinet is fixed outside a window, rain or snow may enter so that the cable is injuriously affected. Furthermore, dust and dirt can freely circulate through the opening and collect within the cabinet, 85 making it extremely unsanitary, while in ad-dition insects and vermin find it desirable as a nesting place. In my present invention the opening is closed by the cabinet seating against the wall or window casing, thus en- 90 tirely closing the entrance to dampness, in-sects, or the like. My improved cabinet is therefore, in closed condition, a substantially air tight sealed compartment, adapted to protect the contents in a thorough and 95 sanitary manner.

It will now be apparent that I have devised a complete, unitary structure embodying a novel construction of a cabinet for use with a flexible fire-escape device, whereby 100 the said device and its adjuncts are effectively protected and concealed when not in use. In addition, the supporting fixtures for the escape cable enter the cabinet at the rear. thus cooperating with the cable on the inte- 105 rior and are entirely invisible in closed condition of the cabinet.

It will further be noted that the novel type of friction carrier is so arranged and constructed as to automatically slide upon the 110 rope by gravity under the weight of an ordinary person and when in use it is unneces-sary for the person to use either hand to manipulate the rope during the descent or come to a complete stop. This is an extremely ad- 115 vantageous feature since it frequently happens that a user of the device faints or becomes unconscious after jumping from the window, roof or the like, but this condition does not prevent the carrier from operating 120 with sufficient freedom to lower the user to safety. A further advantage will also be apparent in that the freely movable carrier allows the user to have both hands free to carry whatever is desired to be saved. 125

It will also be apparent that I have devised a novel and useful construction which embodies the features of advantage enumerated as desirable in the statement of the invention and the above description, and while 130

I have in the present instance shown and described the preferred embodiment thereof which has been found in practice to give satisfactory and reliable results, it is to be un-derstood that the same is susceptible of

 $\mathbf{5}$ modification in various particulars without departing from the spirit or scope of the invention or sacrificing any of its advantages. Having now described my invention, what

10 1 claim as new and desire to protect by Letters Patent is:-

In a fire-escape apparatus, a supporting fixture, a cabinet having a flat rear wall provided with an elongated aperture at each end

15 transversely disposed with respect to the longitudinal axis of said cabinet, either aperture being adapted to receive said fixture and permit free lateral movement of the cabinet within limits, said apertures further providing for reversibly supporting said cabi- 20 net, a flexible cable secured to said fixture, a carrier mounted for sliding movement upon said cable and adapted to be controlled by friction, and a door for said cabinet adapted to close said receptacle whereby said 25 escape apparatus is entirely concealed and effectually protected.

In testimony that I claim the foregoing invention I hereunto set my hand this eighteenth day of December, 1914.

ABRAM L. PLUSH.

In the presence of— C. H. WISSMANN, C. E. KLEINFELDER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."