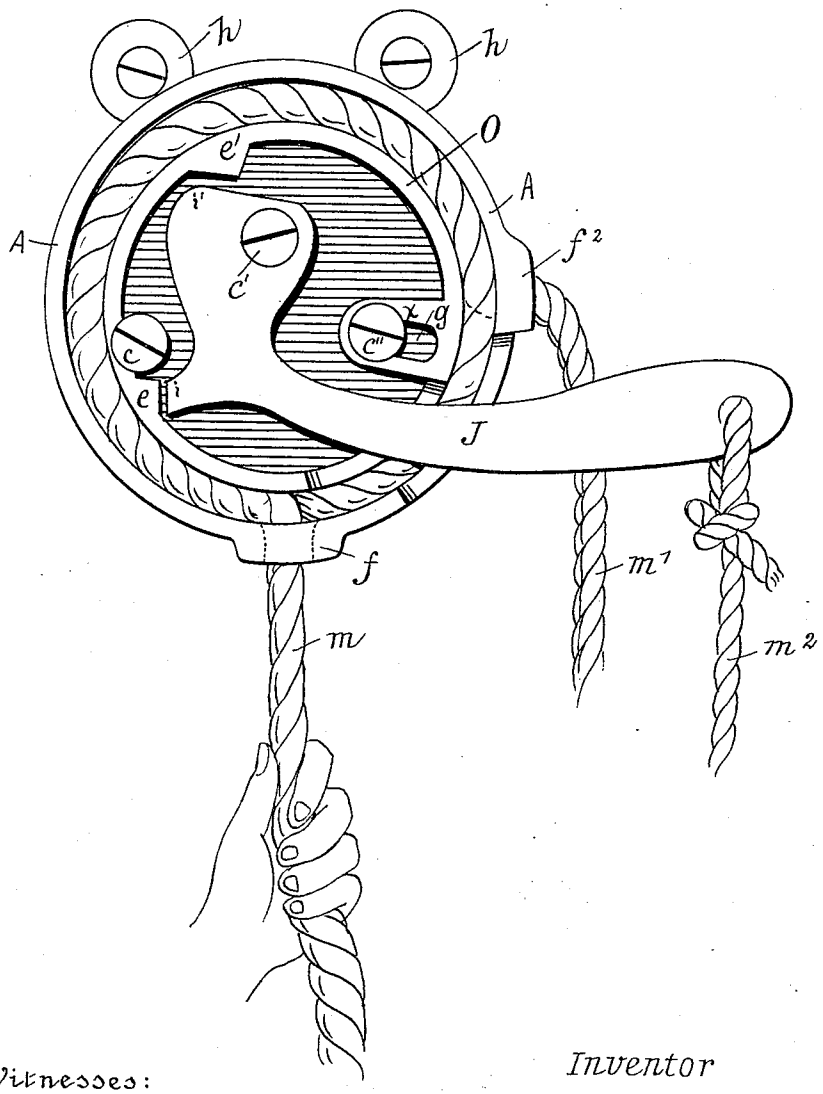
(No Model.)

C. M. FOWLER.

FIRE ESCAPE.

No. 481,693. Patented Aug. 30, 1892.



Witnesses:

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UNITED STATES PATENT OFFICE.

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 481,693, dated August 30, 1892.

Application filed April 30, 1892. Serial No. 431,232. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. FOWLER, a citizen of the United States, residing at Salem, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Fire-Escapes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in fire-escapes, by means of which an escape is provided, being simple in construction, durable, cheap in first cost, and very effective for the purpose designed.

More particularly my invention relates to a device to be utilized for fire-escape purposes and is designed to be secured to a window-casing by means of direct attachment, as with screws, or of attachment to window-sills by means of grappling-hooks connected with the device by suitable chain or chains.

The invention consists, essentially, of a circular case with flat faces and of any desired depth to accommodate it to any particular application, and of a metal circle with the outer circumference thereof perfectly smooth and adjusted within the metal case with its outer surface bearing near to or a small distance from the inner face of the circular casing and an equal distance therefrom, the metal circle being provided upon its inner circumference or the inner face thereof with a slotted inward projection or an ear and with two lugs or shoulders, and of an arm pivoted at or near the central portion of the ring to the case and provided with suitable shoulders or extensions designed to contact with the lugs or shoulders upon the inner surface of the metal circle, a suitable slot being provided in the circle and casing to allow the said arm to project without the said casing. Within the said casing and around the metal circle it is designed that a rope be coiled a suitable number of times with the free ends thereof escaping through openings in the rim of the case.

That my invention may be more fully understood reference may be had to the accompanying drawing, in which the figure shows the plan view of the device with the top cover removed.

In the figure, A A refer to a circular casing provided with flat sides with perfectly-smooth inner face and provided with openings f f^2 and with ears h h for securing the same to the window-casing or to any point desired. O is metal circle provided with a perfectly-smooth outer face and having projecting from the inner face thereof the extension or ear x, provided with the slot g and with the lugs or shoulders e e'. J is a lever pivoted as at C' and provided with the extensions i i'. m is a rope coiled around the circle O and within the space between the outer face of the said circle and the inner face of the case. m' is a free end of the same rope. m'' is a rope attached to the lever J.

In operation, for the purpose designed, the rope having first been coiled within the case, as herein shown, and the upper face or cap secured thereon, the case being secured in proper position, the device is in readiness for operation. We will suppose for convenience that a person is desired to be lowered from an apartment at some distance above the ground. A sufficient length of rope must be provided at the point of descent to reach to the ground and may be coiled within the apartment or room from which the descent is made. The rope end m^2 should also be of a sufficient length to reach the ground. The weight of a person secured to the rope by a sling or other means will have a tendency to draw the rope downward; but in being so drawn the weight is distributed upon the left and also upper surface of the circle O, which bears the same to the right and slightly downward, impinging the rope with sufficient firmness to prevent its slipping within the case. The person descending by grasping the rope m^2 and pulling downward will adjust the lever J or the projections thereof to contact with the shoulders e e', pressing the circle O to the left and slightly upward a sufficient distance to free the rope from its impinged condition, which will allow the said rope m to be drawn through the case, the friction therein being sufficient in ordinary cases to prevent a rapid descent of the person making the descent; but should the descent be too rapid it can be stopped at once by releasing the hold on rope m^2 or by pulling downward with greater force or shift-

ing one's weight thereon, which will force the metal circle O to the left and slightly upward, firmly impinging the rope between the respective faces of the circle and case. Thus it will be seen that a person descending may regulate and control the rapidity of his descent or absolutely stop it by means of the rope m^2, connected with the lever J. The lever J may be operated by a person other than the one descending, either from the point of descent by grasping the lever, or by a person upon the ground by means of the rope m^2. In the drawing the screws c c'' are adjusted, the screw c to give proper direction to the movement of the circle O when pressed to the left by the lever and the screw c'' to assist in holding the circle in place, and the slot g in the extension allows the said circle to move to the right or left, as may be necessary in the operation of the device.

The form of the device other than that of a circular form and the arrangement of the elemental parts thereof may be changed and the number of coils of the rope within to suit the application in which it may be desired to be used. After a descent has been made the rope may be readily returned and another descent made by simply drawing backward the free end m'. The impinging of the rope within the case is prevented by the action of the rope being returned, throwing the circle O or the lug e thereon in contact with the screw c, which holds the circle in a perfect central position.

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

1. In a fire-escape, the combination, with the case A, of the circle O, having the lugs e e' and extension x, provided with slot g, the rope m, coiled around the circle O, and the lever J, pivoted as at c', all substantially as described and set forth.

2. The combination, in a fire-escape, of the circular case A, having the ears h h and openings f f^2 and provided with a slot in its side, the circle O, bearing within the case and provided with the slotted extension x and lugs e e', the rope m, coiled around the circle O and within the case, with its free ends carried without through the openings f f^2, the screws c c'', and the lever J, pivoted as at c', provided with extensions i i' to contact with shoulders e e' and with rope m^2, secured to its outer end, all substantially as described and set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES M. FOWLER.

Witnesses:
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