A. G. MASS.

FIRE ESCAPE.

APPLICATION FILED JUNE 6, 1914.

1,128,025. Patented Feb. 9, 1915.

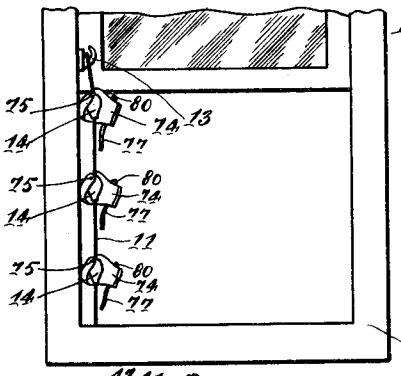


Fig. 1.

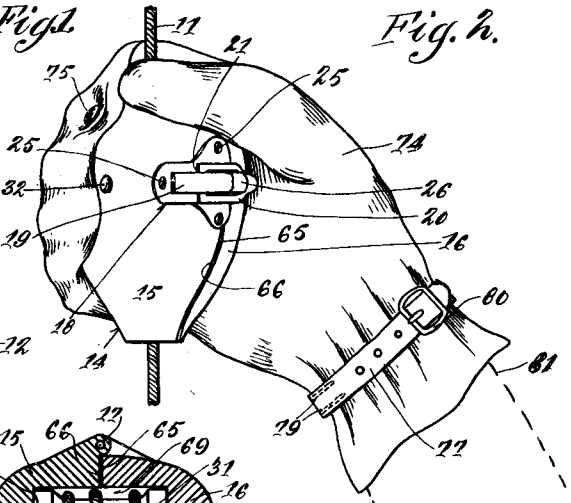


Fig. h.

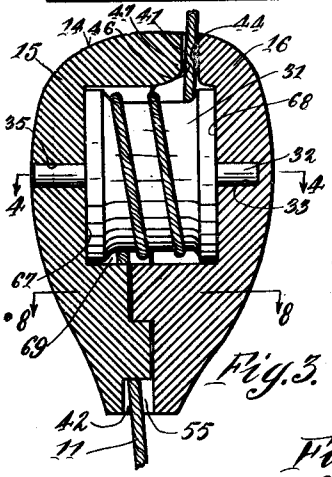


Fig. 3.

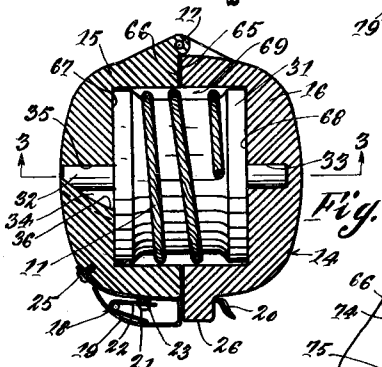


Fig. 4.

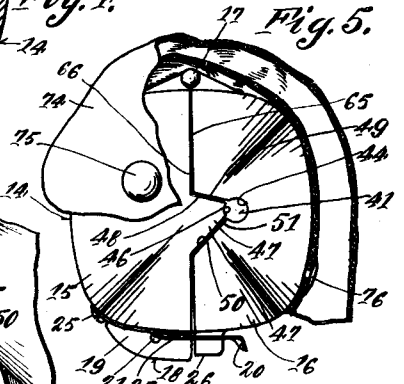


Fig. 5.

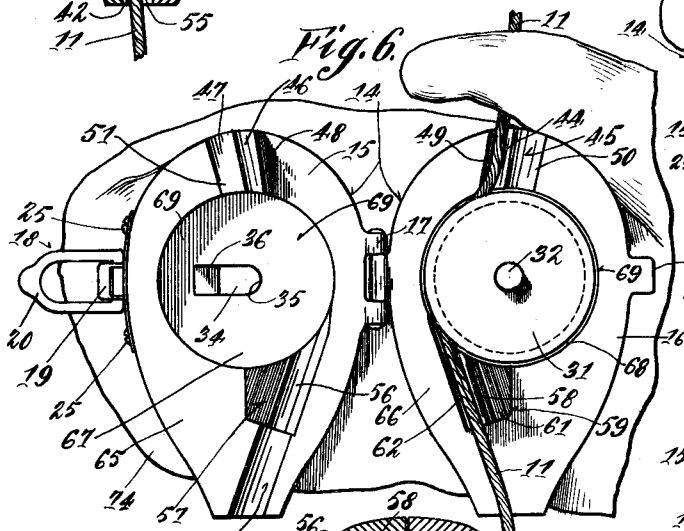


Fig. 6.

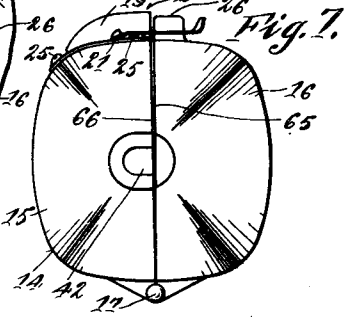


Fig. 7.

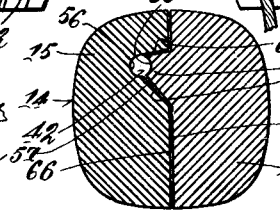


Fig. 8.

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UNITED STATES PATENT OFFICE.

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FIRE-ESCAPE.

1,128,025. Specification of Letters Patent. Patented Feb. 9, 1915.

Application filed June 6, 1914. Serial No. 843,359.

To all whom it may concern:

Be it known that I, AUGUST G. MASS, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

My invention relates to fire escapes, and has for its object the provision of a retarding shell arranged to move lengthwise of a flexible cable, and provided with means whereby the same may be grasped by the person escaping the fire, and the invention consists in the novel construction and arrangements of parts hereinafter more fully described and claimed.

In the drawings: Figure 1 is an inside elevation of a window, partly broken away, in connection with which my invention is shown employed, and showing a cable suspended at the window, on which a plurality of the devices are strung. Fig. 2 is a perspective view showing my improved device in applied relation, the arm of the user being indicated in dotted lines. Fig. 3 is a vertical section of my improved device with the glove omitted, taken on a line corresponding to the line 3—3 of Fig. 4. Fig. 4 is a cross-section of my improved device, with the glove omitted, taken on a line corresponding to the line 4—4 of Fig. 3. Fig. 5 is a plan view of my improved device with the glove shown partly broken away. Fig. 6 is an inside elevation of my improved device showing the parts in spread relation, and the glove partly broken away. Fig. 7 is a bottom view of my improved device with the glove removed; and, Fig. 8 is a cross-sectional detail taken on a line corresponding to the line 8—8 of Fig. 3, showing the members closed, the glove being removed.

11 represents a cable, which may be suitably suspended at a suitable point, as at a window 12, by means of a hook 13. The cable is of suitable length, for instance to reach the ground from the window, and would when not in use be suitably coiled and placed in the inside of the room, arranged to be dropped out of the window, so as to be suspended from the window at the outside of the building.

One or more of my improved devices, used in connection with the cable, are arranged at the upper end of the cable at the window ready to be grasped by the user. I have shown three of these devices in Fig. 1.

My improved device comprises a shell 14, shown comprising members 15, 16, hinged together by a hinge 17, and arranged to be fastened together by a suitable clasp 18. The clasp shown comprises a casing 19, to which a retaining clip 20 is pivoted at 21, the retaining clip being normally pressed downwardly by a spring 22 acting on the flat cross-piece 23 of the retaining clip which extends through the casing. The casing is secured to the member 15 of the shell, as by screws 25. The retaining clip is arranged to be received about the lug 26 on the other member 16 of the shell for preventing separation of said members.

A sheave 31 is in the casing, and is journaled about a stud-shaft 32 secured in a bearing 33 of the member 16. The member 15 is provided with an inner recess 34, having a bearing portion 35 for the stud-shaft and a receding portion 36 forming a clearance-space in which the swinging end of the shaft is arranged to move when the shell-members are separated or swung together.

The cable is received through a hole 41 in the upper end of the shell, is wrapped preferably a plurality of times about the sheave, and passes downwardly out of the shell through the hole 42 at the bottom of the shell. The holes 41, 42, are respectively at opposite sides of the parting line between the members of the shell.

The hole 41 connects with the rearwardly sloping passage, formed by a groove 44 in the bottom of a recess 45 in the member 16 and a groove 46 at the end of a lug 47 on the member 15 received in the recess 45. The rear wall 48 of said recess and the rear wall 49 of the lug extends substantially parallel with the shaft 32 with sufficient clearance, however, to permit the lug to be received in the recess when the two halves of the shells swing on their pivots, the forward wall 50 of the recess and the forward wall 51 of the lug being slantingly arranged with relation to said shaft so that the cable may be readily received in the groove 44.

A passage extends from the hole 42 slantingly toward the same side of the sheave toward which the passage extends, the passage also preferably extending slantingly laterally inwardly toward the end of the

sheave, as indicated in Fig. 3. The passage is formed by a groove 56 in the member 15, the member 15 at the inner end of the groove being provided with a recess 57. A mating groove 58 is in the outer end of a lug 59 extending into the recess from the member 16. The wall 61 of the lug distanced from the hinge 17 slants forwardly preferably more than the wall 62 of said lug which is nearer to said hinge, the coacting walls of the recess 57 being correspondingly sloped.

The mating faces 65, 66, between the members of the shell are preferably slightly separated when the clasp 18 is clasped and the end walls 67, 68, of the cavity 69 in the shell have contacted with the ends of said sheave, so that said members of the shell may be pressed toward each other for exerting friction between the shell and the sheave, if desired, for retarding the turning of the sheave, thereby aiding in controlling the speed of descent of the user. A part of the cavity 69 is preferably in each of the shell-members.

74 is a flexible glove, the hand-portion of which is secured at suitable points to the respective members of the shell, such securing means being shown by the fastening 75 connecting with the member 15 and the fastening 76 connecting from the inside of the glove with the member 16. These fastenings may be in the form of rivets received through the glove and the bodies of the members.

The hand of the user being placed in the glove, it is securely held therein by means of a strap 77 rigidly secured to the glove, as by rows of stitching 79, and provided with a buckle 80, by means of which the glove is secured tightly about the wrist 81 of the user, so that the hand of the user may not slip from the glove.

When the user has secured his hand in the glove and clasped the shell-members by his hand through the glove, the descent is controlled by the wrappings of the cable about the sheave, and if desired, by the pressure of the hand upon the shell-members pressing upon the sheave. The user may also grasp the shell with his other hand. The clasp prevents accidental separation of the shell-members.

The device is simple and efficient and easily applied. It may be used in the form of a permanent attachment at the window, or it may be arranged to be portable for being readily attached at a suitable point.

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

1. In a fire escape, the combination of a pluri-part shell, a sheave therein, a cable arranged to be received through said shell and wrapped about said sheave, and a glove to which said shell is secured.

2. In a fire escape, the combination of a pluri-part shell, a sheave therein, a cable arranged to be received through said shell and wrapped about said sheave, a glove to which said shell is secured, and fastening means for said glove arranged to fasten the glove about the wrist of the user.

3. In a fire escape, the combination of a pluri-part shell, a hinge between the parts of said shell, releasable securing means for securing the parts of said shell together, said shell having a cavity, a sheave in said cavity arranged for receiving a cable thereabout, and said shell provided with cable passages slanting from the outside of said shell toward the periphery of said sheave.

4. In a fire escape, the combination of a shell comprising a pair of members, a hinge between said members at one side thereof, a releasable clasp between said members at the other side thereof, said members provided with mating faces between said hinge and clasp, a sheave, each of said members having a cavity therein for forming a cavity in which said sheave is received, said members provided with cable passages respectively above and below said sheave at opposite sides of said mating faces.

5. In a fire escape, the combination of a shell comprising a pair of members, a hinge between said members, a sheave, each of said members provided with a cavity for forming a cavity in which said sheave is received, said members having mating faces between them, one of said members being provided respectively above and below said sheave with a recess and a lug, and the other of said members being provided respectively above and below said sheave with a lug and a recess coacting with said first-named recess and lug, and grooves in the bottoms of said respective recesses respectively coacting with opposite ends of said sheave.

6. In a fire escape, the combination of a shell comprising a pair of members, a hinge between said members, a sheave, each of said members provided with a cavity for forming a cavity in which said sheave is received, said members having mating faces between them, one of said members being provided respectively above and below said sheave with a recess and a lug, and the other of said members being provided respectively above and below said sheave with a lug and recess coacting with said first-named recess and lug, and grooves in the bottoms of said respective recesses respectively coacting with opposite ends of said sheave, and a glove secured to said respective members.

7. In a fire escape, the combination of a shell comprising a pair of members, a hinge between said members, a sheave, each of said members provided with a cavity for forming a cavity in which said sheave is received, said members having mating faces between

them, one of said members being provided respectively above and below said sheave with a recess and a lug, and the other of said members being provided respectively above and below said sheave with a lug and a recess coacting with said first-named recess and lug, grooves in the bottoms of said respective recesses respectively coacting with opposite ends of said sheave, a clasp between said respective members, a glove secured to said respective members, and tightening means for said glove whereby the hand of the user may be fastened in said glove.

In testimony whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

AUGUST G. MASS.

Witnesses:
COLEMAN AVERY,
THERESA M. SILBER.

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