

Patented Oct. 2, 1917.

1,241,701.

Fig. 1.

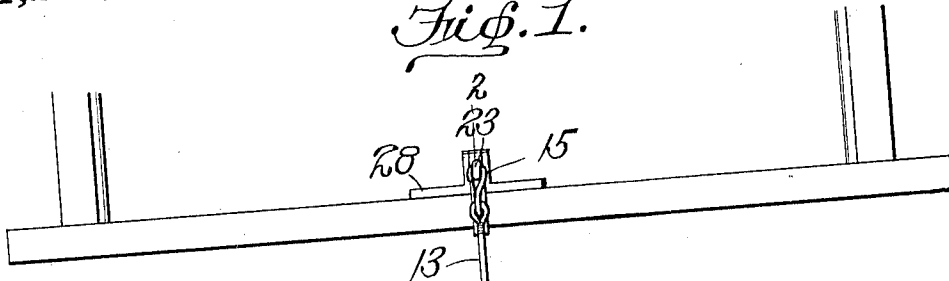


Fig. 5.

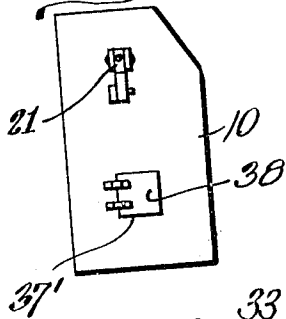


Fig. 4.

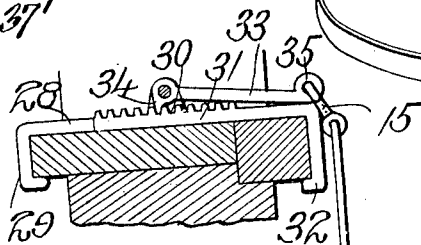
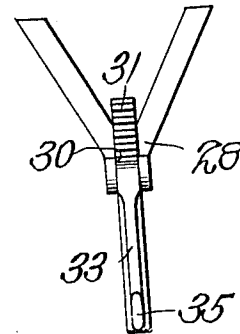


Fig. 3.

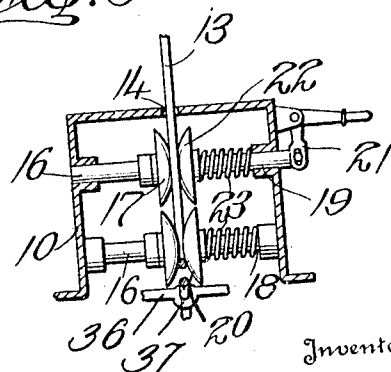
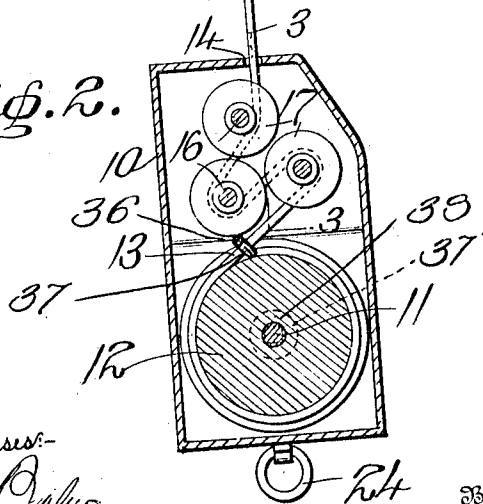


Fig. 2.



Witnesses:
[Signature]
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UNITED STATES PATENT OFFICE.

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FIRE-ESCAPE.

1,241,701.

Specification of Letters Patent.

Patented Oct. 2, 1917.

Application filed October 9, 1916. Serial No. 124,588.

To all whom it may concern:

Be it known that I, MATTHEW BENCUR, a citizen of the United States, residing at Sacket Harbor, in the county of Jefferson, State of New York, have invented certain new and useful Improvements in Fire-Escapes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in fire escapes.

One object of the present invention is to provide a novel and efficient device of this character which can be quickly and safely used by a person when escaping from a burning building.

Another object is to provide a device of this character which includes novel and simple means for regulating the speed of descent of the user.

Another object is to provide a device of this character which includes novel means for attachment to a window ledge for supporting the device and the weight of the descending person.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawing.

In the drawing:

Figure 1 is a front elevation of my improved fire escape attached to the window ledge of a building.

Fig. 2 is an enlarged vertical sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged vertical sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 is a top plan view of the window ledge clamp.

Referring particularly to the accompanying drawing, 10 represents a casing or housing in which is disposed a transverse shaft 11, and mounted to rotate on this shaft is a drum 12. Secured to and wound on this drum is a cable 13, of a length to reach from the window to the ground, and down which the escaping person is to move. This cable extends upwardly through an opening 14 in the top of the casing, and is provided with a snap hook 15 for attachment to a device which will be later described. Above the drum are three superimposed, and transversely extending bolts 16, said bolts extend-

ing practically one-half the width of the casing, and having on their inner ends the concavo-convex disks 17. Extending through the casing, from the opposite side, are the bolts or pins 18 and 19, there being two of the former and one of the latter. The bolt 19 has on its inner end the concavo-convex disk 20, while the outer end of the bolt 19, or that which projects through the side of the casing, is pivotally connected to an angular lever 21 which is pivotally mounted on the side of the casing. On the inner ends of the bolts or pins 18 are secured similar disks 22. On the bolts 18 and 19 are engaged coil springs 23, which bear with their opposite ends against the disks and the adjacent side of the casing. From an inspection of the drawing, it will be seen that the cable passes upwardly between the disks 17 and the disks 20 and 22, the springs forcing the latter disks into firm frictional engagement with the cable, whereby the sliding movement of the cable will be retarded. By drawing downwardly on the lever 21 the friction can be greatly increased so as to cause the descent of the casing and person to be very slow, or to cause a complete stop. On the bottom of the casing is secured a ring or loop 24, to which is adapted to be attached the snap hook 25 carried by the belt 25', said belt being arranged for passage around the waist of the user. The opposite end of the belt is provided with a series of rings 26 for interchangeable engagement with a second snap hook 27 secured to the belt inwardly of the first hook 25.

The ledge attached device consists of a Y-shaped member 28, the ends of the branches of which are turned at right angles to the branches and engaged with the inner edge of the ledge, as shown at 29. At the juncture of the branches there is formed an opening 30 through which is slidably engaged a ratchet-toothed bar 31, having its outer end turned downwardly, as at 32, for engagement with the outer edge of the sill of the window. Pivotaly mounted on the member 28, at the juncture of the branches, is a vertical lever 33, which is formed with a pointed lug 34 for engagement with the teeth of the bar, while the outer end of the lever is formed with an eye 35 for engagement by the snap hook 15, whereby the casing is effectively supported from the window.

In the operation it will readily be understood that the belt is secured around the waist of the person and the same hooked to the bottom of the casing. The person then
5 lets himself out of the window and grasps the lever 21. By manipulating this lever the speed of descent of the casing and person can be conveniently regulated.

To properly guide the cable 13 between
10 the disks, there is secured transversely of the casing, a bar 36, in the center of which is formed an eye 37, through which the said cable passes.

In one side of the casing there is formed
15 an access opening 37', closed by means of a door 38, this opening being arranged opposite the squared end of the shaft 11 for the purpose of inserting a winding key or other suitable device, when it is desired to rewind
20 the cable on the drum, after the escape has been used.

What is claimed is:

A fire escape including a casing, a drum mounted in the casing, a plurality of stationary convex disks disposed in the casing, 25 a cable carried by the drum and extending upwardly through the casing and engaging with said disks, spring pressed convex disks disposed opposite the stationary disks and engaging with the cable and with the first 30 disks, said disks being held in such position that the cable is prevented from passing therebetween but must slide thereon, and a manually operable means for further increasing the tension of the spring pressed 35 disks.

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

MATTHEW BENCUR.

Witnesses:

M. F. PHILLIPS,
LOUIS BERNHEIM.

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