M. F. WELCH.

FIRE ESCAPE.

APPLICATION FILED APR. 27, 1909.

957,589. Patented May 10, 1910.

Fig. 1.

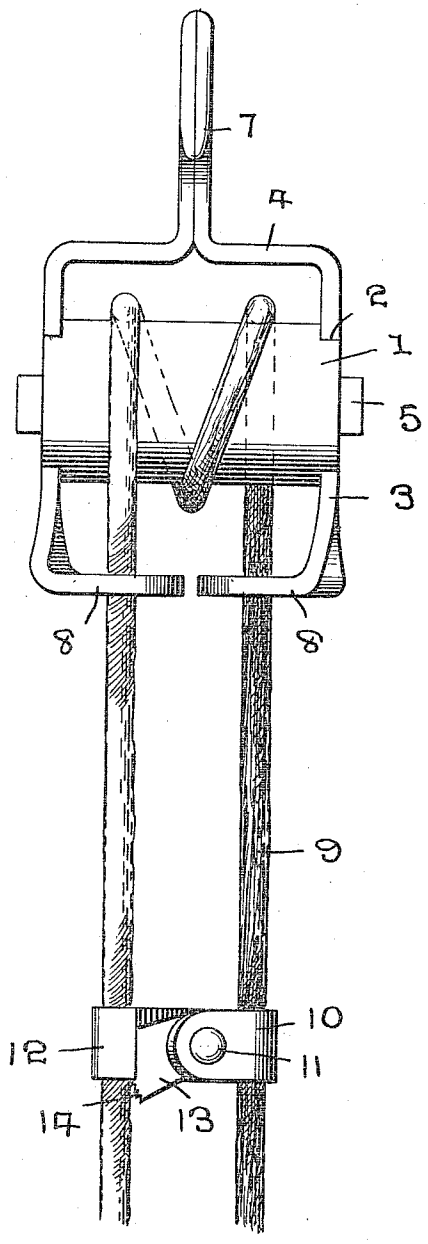
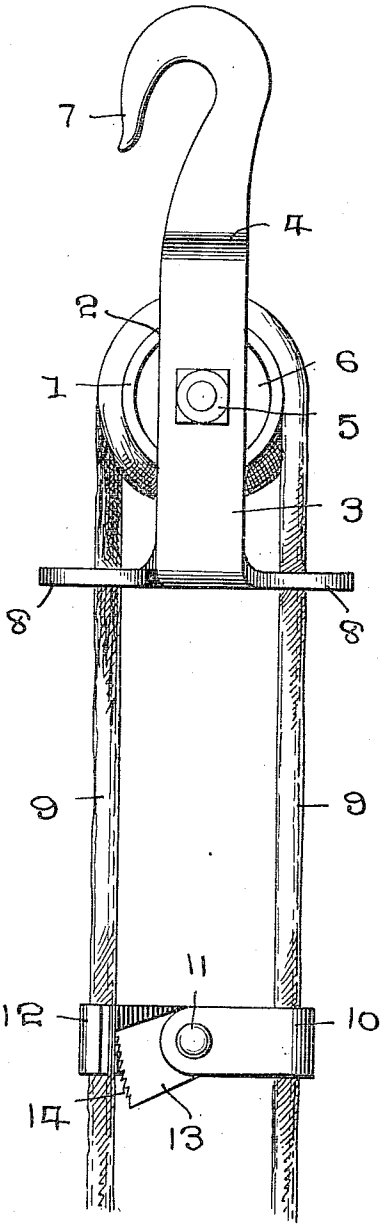


Fig. 2.



WITNESSES:

Thos. W. Riley

M. A. Newcomb

INVENTOR

M. F. Welch

BY

W. J. FitzGerald & Co

Attorneys

UNITED STATES PATENT OFFICE.

MARION F. WELCH, OF HOLLIS, KANSAS.

FIRE-ESCAPE.

957,589. Specification of Letters Patent. Patented May 10, 1910.

Application filed April 27, 1909. Serial No. 492,467.

To all whom it may concern:

Be it known that I, MARION F. WELCH, a citizen of the United States, residing at Hollis, in the county of Cloud and State of Kansas, 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.

My invention relates to new and useful improvements in fire escapes and more particularly to that class known as portable escapes and my object is to provide a drum around which the rope is wound one or more times to cause a friction and prevent undue rapidity of descent.

A further object is to provide guides for the rope as it passes around the drum.

A further object is to provide a suitable hanger for the drum and a still further object is to provide means for stopping lengthwise movement of the rope when desired.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings forming part of this application, Figure 1 is a front elevation of the device complete, and, Fig. 2 is an edge elevation thereof.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates a drum, which is cylindrical and provided at each end with a notch 2, through which extends an arm 3 of a hanger 4, said arms being attached to the drum and in said notches by extending a bolt 5 longitudinally through the drum and through said arms, the ends of the drum being provided with heads 6, which are set inwardly from the ends of the drum, the distance of the depth of the notches, so that the arms 3 will rest against said heads when in position. The upper ends of the arms 3 terminate in a hook 7, whereby the hanger may be secured to any stationary object when the fire escape is to be used, while the lower ends of said arms are bent inwardly to form guides 8 for the rope or cable, the guide on one of the arms being extended to one side of the axial trend of the drum and the other guide to the opposite side thereof and it will be readily seen that when the rope is extended through said guides and wound around the drum, the coils of the rope around the drum will be held sufficiently spaced apart to prevent undue friction when the rope is in use, the guides holding the ascending section of the rope adjacent one end of the drum and the descending section adjacent the opposite end thereof, thus causing the coils of rope around the drum to travel in a separated position.

The descending section of the rope has attached thereto a locking device which comprises a strap 10, one end of which is looped around the descending portion of the rope and is fixed thereto by introducing a rivet 11 through the end of the loop portion of the strap, while the opposite end of the strap is provided with a hook 12, which is adapted to engage the ascending portion of the rope and in order to stop the lengthwise movement of the rope, a latch 13 is pivotally mounted on the rivet 11, the free end of which latch is adapted to swing into engagement with the ascending portion of the rope as it is passing through the hook 12, the latch being slightly greater in length than the distance between its pivot and the ascending portion of the rope, thereby tightly pressing the rope against the inner face of the hook 12 and stopping longitudinal movement thereof, and to insure that the latch will positively bind against the rope, the free end thereof is provided with serrations or teeth 14.

In operation, the rope is wound around the drum as shown and the ends thereof extended through their respective guides, it being understood of course that the rope is twice the length of the distance of descent and when the hook is engaged with a suitable stationary object, the party wishing to descend, engages that section of the rope having the strap 10 attached thereto and by paying out the other section of the rope as the person descends, the descent will be gradual, the rapidity of the descent depending upon the speed with which the ascending rope is permitted to pass around the drum and to more readily control the movement of the rope, any suitable form of sling or seat for the person may be attached to the descending portion of the rope.

Should it be desired to stop the lengthwise movement of the rope, at any point during the descent, the latch is to be swung into engagement with the ascending portion of the rope, the hook 12 having previously been engaged with said section and as soon as the

teeth 14 come in contact with the rope, the latch will be tightly wedged thereagainst and the rope held against lengthwise movement.

This form of device, in view of its simplicity, can be very cheaply and at the same time durably constructed and can be stored away in a small space and it will further be seen that by attaching the hook portion of the hanger to a stationary object and casting the ascending portion of the rope out of a window or other opening, the escape can be quickly positioned for use.

What I claim is:

1. A device of the character described, comprising a non-rotatable drum, said drum having a notch in each end thereof, a hanger having downwardly projecting arms, said arms fitting in said notches, means to secure said drum to said hanger, a rope adapted to movably engage said drum and guides integral with the lower ends of said arms and bent inwardly, said guides extending to the opposite sides of the axial trend of said drum.

2. In a fire escape, the combination with a stationary drum having a notch in each end thereof, a hanger having downwardly projecting arms fitting in said notches, means for holding said drum to said hanger and guides integral with the lower ends of said arms, said guides being bent inwardly and extending to the opposite sides of the axial trend of said drum; of a rope movably engaging said drum and passing through said guides, whereby the wraps of said rope on said drum are held in a separated position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARION F. WELCH.

Witnesses:

R. M. SHEPPERELL,

E. E. FAUNCE.