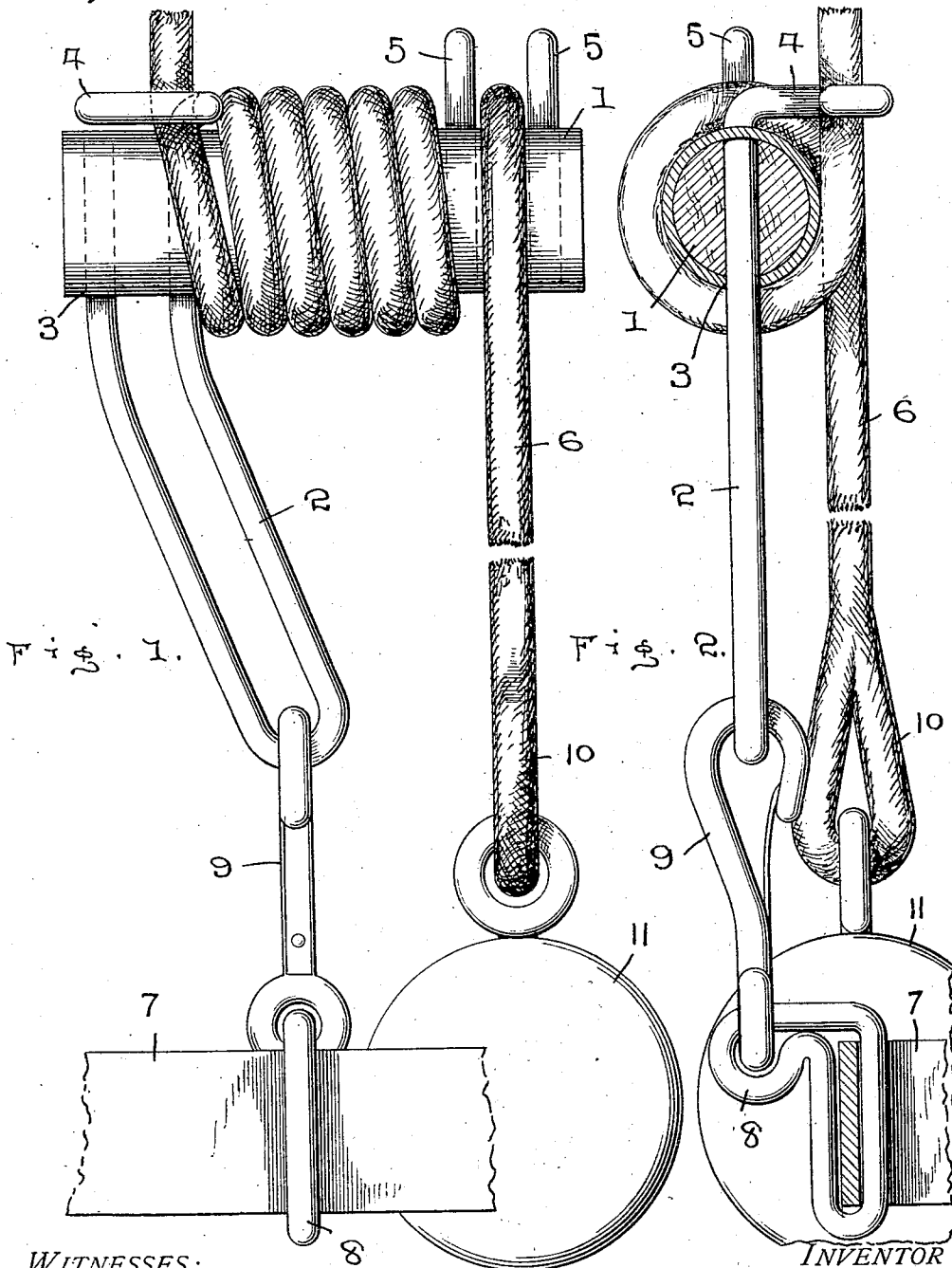


M. F. WELCH.
FIRE ESCAPE.
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968,615.

Patented Aug. 30, 1910.



WITNESSES:

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UNITED STATES PATENT OFFICE.

MARION F. WELCH, OF HOLLIS, KANSAS.

FIRE-ESCAPE.

968,615.

Specification of Letters Patent.

Patented Aug. 30, 1910.

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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 fire-escapes and my object is to provide a device that can be readily thrown into use on quick notice and can be easily transported from place to place.

A further object is to provide a drum around which a rope is wound two or more times to cause friction and prevent undue rapidity of descent.

A further object is to provide guides on said drum to prevent the entangling of the rope or cable as it passes thereover.

A further object is to provide body-engaging means attached to said drum and a still further object is to provide a weight on the end of the rope or cable to aid in the gradual descent of the party escaping.

These and other objects will be hereinafter referred to and more particularly pointed out in the specification and claim.

Referring to the drawings forming part of this application, Figure 1 is a side elevation of the stationary drum having a section of a rope or cable wound thereon and showing a section of the body-engaging means, and, Fig. 2 is an end elevation of the same showing the drum in section.

Referring to the drawings in which similar reference characters designate corresponding parts throughout the several views, 1 indicates a friction or non-revoluble drum, in one end of which is secured a hanger 2 substantially U-shaped in outline and having one of its arms longer than the other. Said hanger is secured in the drum by passing the arms through openings 3 at the bottom of said drum, leaving the shorter of said arms to be held fast within said drum, while the longer thereof is extended through the top of said drum and bent at right angles to the vertical plane thereof and said bent portion being again bent so as to form a substantially L-shaped portion or guide 4. The de-

pending portion of the substantially U-shaped hanger below the drum is bent inwardly toward the central portion of the drum.

The end of the drum opposite that carrying the hanger has secured therein a pair of upwardly extending spaced apart pins 5 and a rope or cable 6 is adapted to be wound two or more times around said drum 1, one end of said rope 6 being guided by the L-shaped guide 4 extending from the hanger, while the opposite end of said rope is guided in the space left between said pins 5 on the opposite end of said drum. In descending with this device, it will of course be necessary for the party to have some body-engaging means, so that I have provided a body-engaging strap 7 carrying the substantially L-shaped buckle 8 thereon, said buckle engaging a snap hook 9 and said snap hook is carried by the depending portion of the hanger 2. Secured to a loop 10 at the lower end of said cable 6, I have provided a weight 11 which, it will be seen, is adapted to aid in counteracting the descending weight and insure a gradual descent, particularly should the party descending become frightened and faint, in which case, said party usually releases his hold upon the rope.

In using this fire-escape, the rope is first wound two or more times around the drum 1, one end of said rope being guided through the L-shaped portion 4 and engaged with some means on a window-frame or the like, while the opposite end of said rope carrying the weight is guided through the space between the pins 5 at the opposite end of the drum and leaving the descending or weighted end of the rope to dangle below. The party wishing to descend then engages himself with the strap or sling 7, simultaneously holding the descending portion of the cable or rope 6 and by paying out portions thereof slowly, he will gradually descend, his descent depending largely upon the rapidity with which said rope is allowed to pass around said drum. Should the party descending become frightened or faint, thereby losing control and allowing himself to release his hold upon the cable, he will not be thrown violently to the ground and be seriously or fatally injured, as under ordinary circumstances, but the weight 11 will counteract his weight and aid with the friction drum in allowing him to descend gradually just as though he had not released his hold.

It will be seen that I have provided a portable fire-escape in which I have used a non-revoluble drum and cable to cause friction in allowing gradual descent and it will further be seen that I have provided a weight to aid in insuring a gradual descent in cases of people losing control. It will further be seen that I have provided a hanger which is disposed so as to equalize the weight on the friction drum and it will still further be seen that I have provided guiding means to prevent the entangling and binding of the rope or cable. It will still further be seen that I have provided a portable fire-escape which is simple and economical in structure and effective in operation.

What I claim is:—

A fire-escape, comprising a friction drum, a rope adapted to movably engage said drum, a hanger of U-shaped design having the ends thereof entering said drum adjacent one

end and the body portion of said hanger depending therebelow, said depending portion being inclined inwardly toward the vertical axis of said drum, means to guide said rope at the end of the drum opposite that carrying said hanger, and additional means to guide said rope at the opposite end of said drum, comprising a hook member above said drum formed from one arm of said hanger extending through said drum, said hook member being bent at right angles to the vertical plane of said hanger, for the purpose described.

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

MARION F. WELCH.

Witnesses:

HARRY LOUGHMILLER,
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