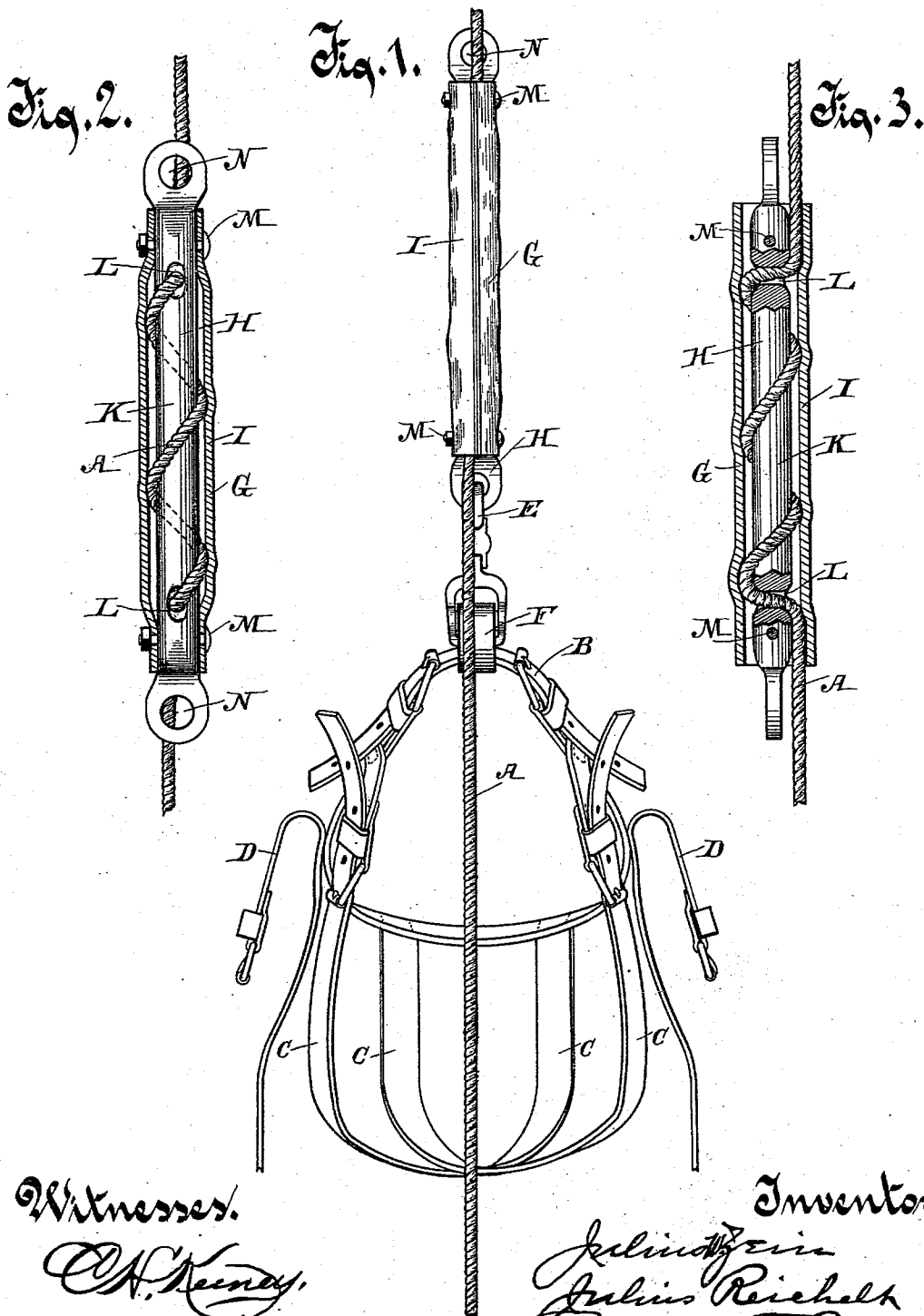


(No Model.)

J. W. ZEIN & J. REICHELT.
FIRE ESCAPE.

No. 439,263.

Patented Oct. 28, 1890.



Witnesses.

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JULIUS WM. ZEIN AND JULIUS REICHELT, OF LA CROSSE, WISCONSIN.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 439,263, dated October 28, 1890.

Application filed July 19, 1890. Serial No. 359,261. (No model.)

To all whom it may concern:

Be it known that we, JULIUS WILLIAM ZEIN and JULIUS REICHELT, of La Crosse, in the county of La Crosse and State of Wisconsin, have invented a new and useful Improvement in Fire-Escapes, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

Our invention relates to improvements in a fire-escape in which a suspended rope or cable is used, on which a person may let himself down from an upper part of a burning building, the rope or cable being provided with a movable seat or device for securing the person to the fire-escape, which seat or securing device is connected movably to the rope or cable; and our invention is in the construction and arrangement of the device for securing the seat movably to the rope or cable and in the peculiar construction and arrangement of the seat or device for securing the person to the rope or cable. The device for attaching the seat to the rope serves not only the purpose of such attachment, but is so constructed as to serve also as a brake, by which the person descending on the rope or cable can regulate the speed of his descent toward the ground. This brake or connecting device is also so constructed and arranged that it moves equally well either one way or the other on the rope or cable, whereby the complete device is adapted to be used repeatedly and quickly, the cable or rope being merely changed end for end without having to run the rope through the brake or connecting device to transfer the brake and supported seat to the end of the cable from which it originally started, as is necessary in some other devices in which a suspended rope or cable is used for the purpose of a fire-escape.

In the drawings, Figure 1 is a perspective view of the brake or connecting device and the seat of the fire-escape, a portion of the suspended cable or rope being also shown in front. Fig. 2 is a side elevation of the connecting device or brake, the flexible case being in section to exhibit the interior construction. Fig. 3 is also an elevation of the brake or connecting device, the view being taken at right angles to the view shown in Fig. 2,

the enveloping-case being in section and parts being broken away to show interior construction.

The suspended rope or cable A may be of an ordinary hemp, sea-weed, or manila cord or rope, or it may be made of any other material that is sufficiently flexible for the purpose, and in any event it is well to have this rope saturated or covered with some combustible material, which will make it more satisfactory for use with a fire-escape. This cable is to be attached to the building or other support at any convenient elevated point in such manner as to be readily unfastened when desired.

The seat or supporting device is constructed of a strap or band B, adapted to encircle the person at the waist, and two crossed straps C C, attached to the band B, which cross-straps are arranged to serve as a seat for the person using the fire-escape. Other straps D D are attached medially to the band C, preferably at the sides of the person, which straps are adapted for securing traveling-bags or packages to the supporting device. A snap-hook E is secured to the band B at that part of the band which is in front of the person using the fire-escape conveniently by a leather ring F. The seat or support is connected movably to the rope A by means of the connecting device or brake G. The brake G consists of a short iron rod H, partially enveloped by a flexible case I, preferably made of leather. The rod H has a central or body part K, which is cylindrical in form and is pierced near each end with two lateral apertures L L, which are at right angles to the axis of the rod, both of which apertures are enlarged or flared outwardly at the surface of the rod, the apertures being adapted for the passage of the rope or cable A through them and for the running of the rod or brake on the cable equally well in both directions. The rope or cable is passed through these apertures L L and runs spirally once or twice around the body of the rod between the two apertures. The flexible case I, desirably constructed of stout leather, incloses the rod and the cable wound thereabout throughout the length of the body of the rod from beyond the aperture L near the top to below the aperture L near

the bottom of the rod. The case I is preferably and conveniently secured to the rod by bolts M M passing through it and through the rod. The rod H is provided at its two ends with eyes N N, into either of which the hook E may be inserted, whereby the seat or supporting device may be attached to the brake or connecting device at either end.

It will be understood that in use when a person is in the seat the weight of the person will carry him down, though with somewhat lessened speed, by reason of the cable passing through the apertures L L and being wound around the rod H, the weight of the person serving to tighten the rope about the rod and through the apertures, whereby it is made to serve to some extent as a brake automatically, and that, as such arrangement is not sufficient to properly check the speed of a person downwardly in all instances, particularly if the person be quite heavy, the person having the brake in front of him may grasp the case I with one or both hands and compress it tightly on the cable running about the body K of the rod, and thereby with comparative ease so tighten the grip or pressure of the cable about the rod as to cause the brake to descend on the cable as slowly as desired. It will be observed that the case I is so constructed as to entirely envelop the body of the rod and the cable about it and is in such form and size as to be conveniently grasped by both hands when desired. When a person has descended on the cable in this seat and has got out of the seat, the brake and seat may be temporarily secured to the cable by tying the cable about it in a loose knot or in some other convenient way, and the brake and seat may then be pulled up to the place of the attachment of the rope above, and the end of the rope that was below may be attached above, and the end that was above released and dropped down, and the seat may be unfastened from the lower end of the rod H by unhooking the snap-hook E, and, the seat being then attached to the other end of the rod H, by inserting the hook E in the eye N at the other end of the rod the fire-escape is again ready for use, the brake being adapted to run over the cable in the opposite direc-

tion. This change in the device or readjustment of it by shifting the cable end for end and attaching the seat to the other end of the brake-rod is much more quickly accomplished than the rope could be run through the brake-rod to transfer it to the upper end of the rope for renewed use, thereby making this device particularly valuable for the rapid use for which fire-escapes should be adapted. The straps D D may in an emergency be used not only for baggage-straps, but may be used to secure a child or children or even larger persons to the fire-escape, so that the person descending in it and managing the brake may take with him one or more persons secured to the seat by means of the straps D D. The brake also is so constructed and arranged that a person can readily stop the descent of the seat at any point along the rope or cable, so that a person descending by this fire-escape from the fifth or sixth story of a building may stop opposite the window of a lower story and remove a child or children therefrom, securing them to the supporting device by means of the straps D D, and take them to the ground with him.

What we claim as new, and desire to secure by Letters Patent, is—

In a fire-escape, the combination, with a cable, of a rod having eyes in both its ends and an intermediate cylindrical part through which, at distances apart, apertures are formed at right angles to its axis, the cable passing movably through the eyes and apertures of the rod and being wound medially about the cylindrical part, and a case formed of flexible material secured permanently to the rod near its ends and inclosing the cylindrical part and the cable wound thereabout, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JULIUS WM. ZEIN.
JULIUS REICHELT.

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Witnesses to Julius Reichelt:

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