

No. 638,950.

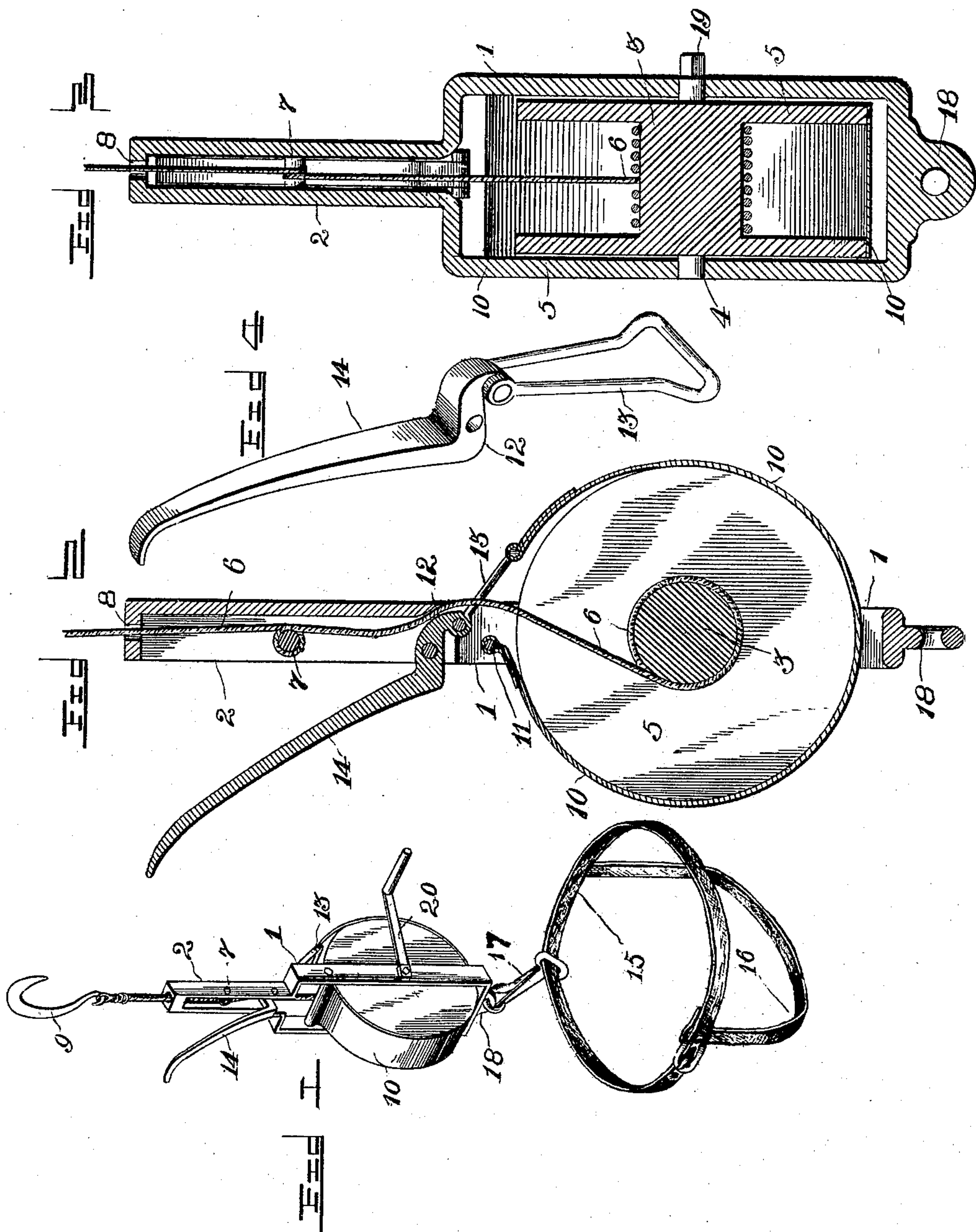
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W. T. ADDISON & G. WRIGHT.

FIRE ESCAPE.

(Application filed Apr. 1, 1899.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIAM T. ADDISON AND GILBERT WRIGHT, OF NEW CASTLE, INDIANA, ASSIGNORS OF THREE-FIFTHS TO HENRY J. ADAMS AND STEPHEN ADAMS, OF SAME PLACE.

## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 638,950, dated December 12, 1899.

Application filed April 1, 1899. Serial No. 711,380. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM T. ADDISON and GILBERT WRIGHT, citizens of the United States, residing at New Castle, in the county of Henry and State of Indiana, have invented a new and useful Fire-Escape, of which the following is a specification.

This invention relates to portable fire-escapes of that class embodying a frictionally-controlled rope-drum, and has for its object to improve the manner of mounting and operating the brake-band.

To this end the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the device. Fig. 2 is a vertical longitudinal sectional view thereof. Fig. 3 is a vertical transverse sectional view. Fig. 4 is a detail perspective view of the brake-lever.

Corresponding parts are designated by like reference characters in all the figures of the drawings.

Referring to the accompanying drawings, the parts of the device are carried by a substantially rectangular frame 1, having a hollow hand-grasp 2 extending upward centrally from the top cross-piece of the frame.

Located within the frame is a rope-drum 3, having opposite fixed journals 4, which are mounted in the inner faces of the respective side members of the frame. The drum is provided with opposite peripheral flanges 5, much greater in diameter than the drum and extending nearly the entire distance between the ends of the frame. Coiled about the drum between its flanges is a wire cable 6, which extends upward into the hollow hand-grasp, is passed around a transverse tension-pin 7, provided intermediate of the ends of the hand-grasp, and then out through an opening 8, formed through the top thereof. The free extremity of the rope or cable is provided with a hook 9, to be engaged with the window-frame or some article of furniture in the room to provide an anchorage for the device when in use to lower a person out of a window, as will be hereinafter more fully explained.

Embracing the peripheral edges of the flanges of the drum is a flat brake strap or band 10, having one end fixed by connection with a transverse pin or bar 11, which passes through the opposite sides of the frame near its upper end. The opposite end of the band extends nearly entirely around the flanges, being free or movable and connected to a bell-crank lever 12, mounted within the hollow hand-grasp at the lower end thereof. A substantially U-shaped link 13 forms the connection between the movable end of the band and the bell-crank lever, the band being connected to the bend of the link and the arms of the latter embracing the adjacent end of the bell-crank lever, to which they are suitably pivoted. The opposite end of the bell-crank lever is provided with an operating-handle 14, which extends at one side of the hand-grasp adjacent to the fixed end of the brake-band and opposite the movable end thereof. It will be noted that both the bottom and one side of the hand-grasp are open to accommodate the bell-crank lever and the operating-handle, respectively.

The means for suspending the person from the device comprises a belt or strap 15, having a pendent loop or strap 16, connected at its opposite ends to diametrically opposite points upon the belt. The latter carries a snap-hook 17, which is adapted to be hooked into an eye or link 18, provided upon the lower transverse end of the frame 1.

In the operation of the device the belt is fastened about the waist of the person. The hook 9 at the end of the cable is engaged with the window-frame or other object to provide a firm anchorage. The snap-hook 17 on the belt is engaged with the eye 18 of the frame. The hand-grasp and brake-operating lever are grasped by one hand, and with the other hand the person lowers himself out of the window. The turning of the drum and the unwinding of the cable are regulated by the band-brake, and thus the person may lower himself gradually to the ground. The device may be brought to a positive stop by means of the brake for the purpose of aiding another person or for any desired purpose. It will be understood that the pendent strap or loop 16 is for the operator to sit upon, and the belt



holds him steady, leaving his hands free to control the device and guide himself in his descent.

One of the journals of the drum is extended through and beyond the side of the frame, where it is made angular in form, as at 19, and adapted to receive a suitable key or crank 20, whereby the drum may be turned and the cable wound thereon in readiness for another to use.

By reason of the band-brake engaging both flanges the cable is effectively housed upon the drum, protected from the accumulation of dust and dirt, and said cable is confined upon the drum and prevented from becoming accidentally unwound or loosened thereon. The cable is passed around the pin 7 in the hand-grasp to provide a tension for the same and prevent the possibility of any slack therein, as will be understood.

The present device provides a very useful and convenient portable fire-escape, as it is light and durable, is compact and takes up very little room, and is completely under the control of the operator when descending from a window.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the present invention.

Having thus described the invention, what is claimed is—

1. In a fire-escape, the combination of a frame having a fixed hand-grasp located at the upper end thereof, a drum having opposite peripheral flanges and mounted below the hand-grasp and within the frame, a cable or rope wound upon the drum and passing upwardly through the hand-grasp, a band-brake embracing the peripheries of the flanges and having one end fixedly connected to the frame, a bell-crank lever mounted upon the frame and connected to the opposite free end of the brake-band, and operating means connected to the lever and located alongside of the hand-grasp in reach of the fingers of the hand that grips the hand-grasp, substantially as shown and described.

2. In a fire-escape, the combination of a frame having a fixed hand-grasp at its upper end, a drum having opposite peripheral flanges mounted within the frame and below the hand-grasp, a cable or rope wound upon the drum and passing upwardly through the hand-grasp, a band-brake embracing the pe-

ripheries of the flanges and having one end fixedly connected to the frame, a bell-crank lever pivoted to the lower end of the hand-grasp, a link connected to the free end of the brake-band and pivoted to the adjacent end of the lever, and an operating-handle connected to the lever and located alongside of the hand-grasp, substantially as shown and described.

3. In a fire-escape, the combination of a frame having a hollow fixed hand-grasp at the upper end thereof, which is open at the lower end and throughout one side thereof, and provided with a transverse pin located within the hand-grasp and intermediate of the ends thereof, a drum located below the hand-grasp and having peripheral flanges mounted within the frame, a rope or cable wound upon the drum and passing upwardly through the hand-grasp and around the pin thereof, whereby a tension is provided upon the cable, a brake-band embracing the peripheries of the flanges and having one end fixedly connected to the frame, a bell-crank lever pivoted within the hand-grasp and projecting through the open lower end thereof, a substantially U-shaped link connected at its bend to the free end of the brake-band, and having the ends of its sides embracing the adjacent end of the bell-crank lever and pivoted thereto, and an operating-handle connected to the opposite end of the lever and projecting through the open side of the hand-grasp and located alongside thereof, substantially as shown and described.

4. In a fire-escape, the combination with a frame having a fixed hand-grasp extending above the top thereof, and a pendent suspending device or seat for the operator, of a drum mounted within the frame, a rope or cable wound upon the drum and passing upward through the hand-grasp, a band-brake frictionally embracing the drum, and an operating-lever carried by the frame and located adjacent to one side of the hand-grasp and adapted to be operated by the hand of the operator which engages the hand-grasp, substantially as shown and described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

WILLIAM T. ADDISON.  
GILBERT WRIGHT.

Witnesses:

D. W. KINSEY,  
FRED SAINT.