

(No Model.)

E. W. DIXON.
FIRE ESCAPE.

No. 465,464.

Patented Dec. 22, 1891.

Fig. 1.

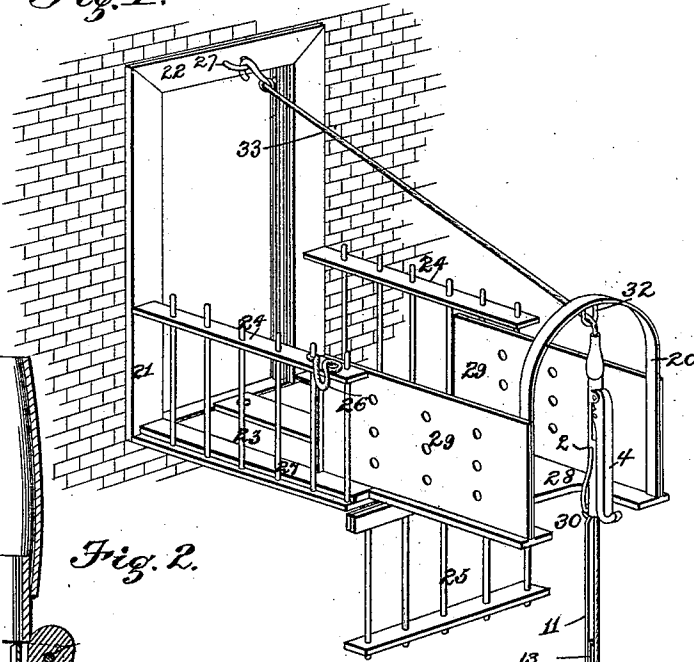


Fig. 2.

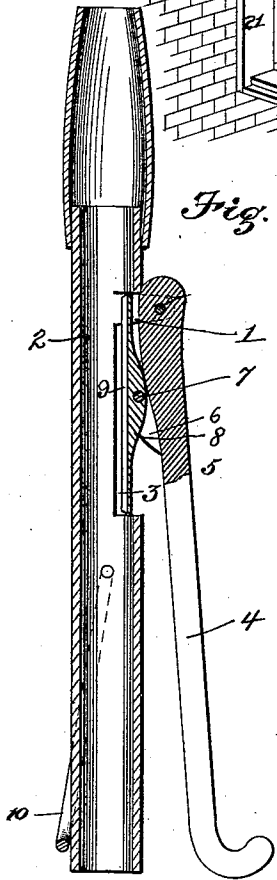


Fig. 3.

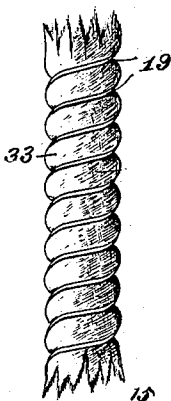


Fig. 6.

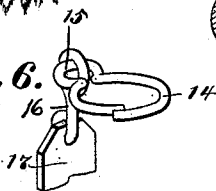


Fig. 4.

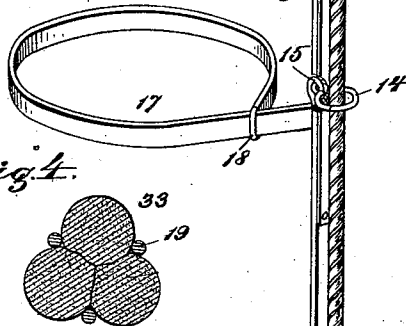
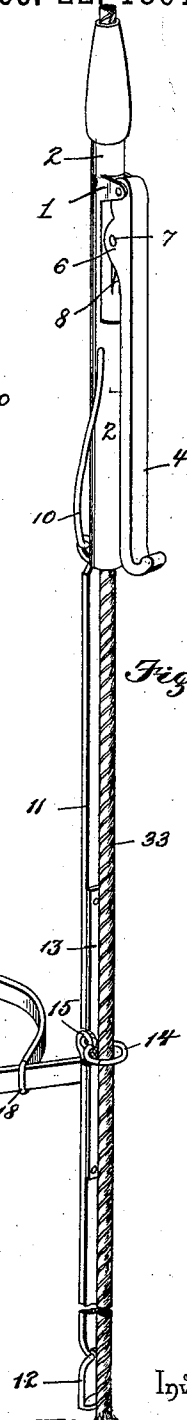


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

ELLIS W. DIXON, OF NEAR FOREST GROVE, OREGON.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 465,464, dated December 22, 1891.

Application filed February 10, 1891. Serial No. 380,911. (No model.)

To all whom it may concern:

Be it known that I, ELLIS W. DIXON, a citizen of the United States, residing near Forest Grove, in the county of Washington and State of Oregon, have invented a new and useful Fire-Escape, of which the following is a specification.

This invention relates to improvements upon Patent No. 442,961, granted me December 16, 1890, for fire-escapes.

My invention has for its object to improve the construction of rope-clamping lever, by which I secure greater power and can better govern the passage therealong of the person escaping, to more securely connect the person and prevent him from falling, and, finally, to prevent the rope used in the escape from becoming burned and rendered inefficient by the fire.

With these specific objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a portion of the escape-rope, the life device being mounted thereon and provided with improvements constructed in accordance with my invention. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a detail enlarged in elevation of a portion of the rope. Fig. 4 is a transverse section. Fig. 5 is an enlarged detail of portions of Fig. 1, the lower part being broken away so that the stirrup may be seen. Fig. 6 is a detail of connection between the rope, strap, and belt.

Like numerals of reference indicate like parts in all the figures of the drawings.

21 designates the sides of a window-frame, and 22 the upper cross-rail or sill. Extending outwardly from the lower sill of the window is a platform 23, provided with opposite side rails 24 and parallel ways 27. Mounted for sliding in the ways 27 is a movable platform 28, provided at its front edge with a recess or well 30. The movable platform is provided at opposite sides with sides or guards 29 and at its front end with an arch 20, from the center of which depends an eye 32. The platform 23 is also provided with a front gate 25, hinged at its lower edge to the platform and adapted to be locked by a catch 26. By

lowering the gate the platform 28 may be withdrawn partially from and form a continuation of the platform 23.

33 designates the life-rope, suspended from any suitable source, in this instance connected to the staple 27, located in the top sill 22 and passed through the eye 32 of the arch 20, and upon the same is mounted for reciprocation the metal tube 2, from the lower end of which depends the rope.

The tube 2 is provided with an oblong opening or slot 3, the edges of which are upturned to form flanges or ears 1, and extending between the ears or flanges is the upper end of a brake-lever 4, pivoted between said ears, which terminates at its lower end near the lower end of the tube in a suitable handle. The lever is provided upon its inner side and upon opposite edges with perforated bearing-ears 6, between which take and is pivoted by a pin 7 the tenon 8 of a clamp-piece 9, the inner face of which is concaved to fit the rope 1.

A wire bail 10 is secured to the tube opposite to that side thereof at which is located the lever 5, and connected to the lower end of the same below that portion thereof that serves as a guard for the fingers of the hand of the operator there is connected the upper end of a depending suspension-strap 11, which terminates at its lower end in a stirrup 12, or it may be a wire basket in which the occupant may insert his feet. Near its upper end the strap has fastened thereto a metal plate 13, from the inner face of which projects a snap-hook 14, which is vertically below the bore of the tube and loosely receives the life-rope and is maintained by said rope in vertical alignment with the tube. The shank of the snap-hook extends through the plate and suspension-strap and there terminates in an eye 15, in which is coupled the cock-eye 16, secured to the inner end of a body-strap 17, terminating at its opposite end in a ring 18, running upon a strap and forming a noose thereof, which encircles the body of the person escaping.

It will be apparent that the efficiency of the clamping-lever has been greatly increased by the addition of the shoe, which is enabled to have surface-contact with the rope throughout its length, and hence requires a less amount of power to operate it.

The third improvement of my invention—namely, upon the rope—is as follows: I prefer to employ cotton rope of proper size and length and thoroughly wash or coat the same
5 with a strong solution of salted alum, which I permit to dry, and then give the rope a further coat of metallic paint and wrap the rope with three or more strands of copper or steel wire 19. A rope thus constructed may be
10 passed through the fire without danger of ignition and will be found extremely serviceable. The wire strands lie within the coils of the rope, and hence have no contact with the friction-shoe.

15 Having described my invention, what I claim is—

1. The combination, with the escape-rope, of a metal tube and brake devices, a strap de-

pending from the tube and terminating in a stirrup or carriage, a snap or guide-eye extending from each side of the strap, and a body-band connected to one guide-eye and the escape-rope passing through the other guide-eye, substantially as specified. 20

2. The herein-described rope having a coating formed of a solution of salt and alum and an outer coating of metallic paint, and strands of wire coiled between its coils, substantially as specified. 25

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses. 30

ELLIS W. DIXON.

Witnesses:

JOHN W. H. ADKINS,
D. L. FORDNEY.