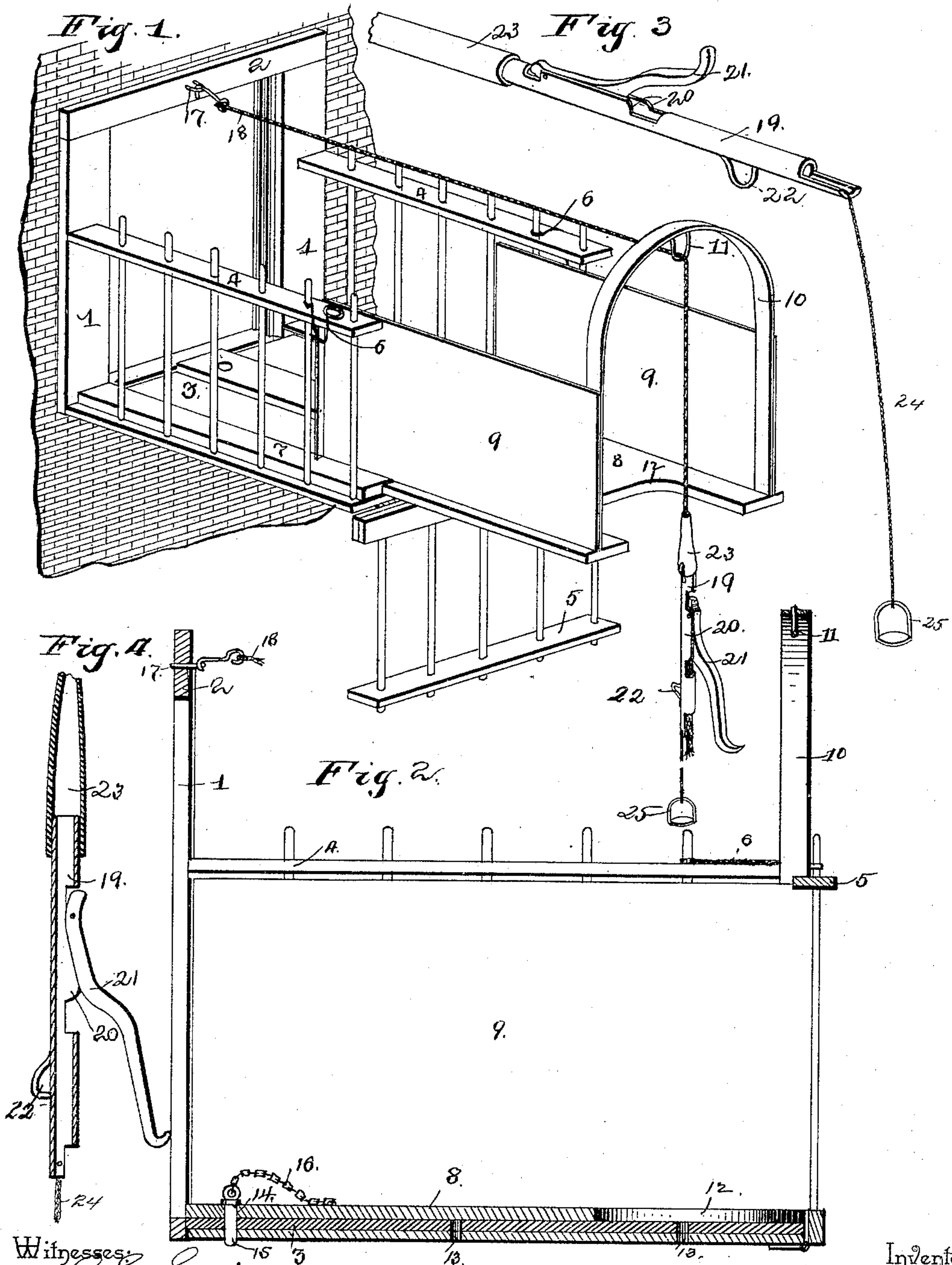


(No Model.)

E. W. DIXON.
FIRE ESCAPE.

No. 442,961.

Patented Dec. 16, 1890.



Witnesses:

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UNITED STATES PATENT OFFICE.

ELLIS WATSON DIXON, OF FOREST GROVE, OREGON.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 442,961, dated December 16, 1890.

Application filed August 25, 1890. Serial No. 362,962. (No model.)

To all whom it may concern:

Be it known that I, ELLIS WATSON DIXON, a citizen of the United States, residing at 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 has relation to fire-escapes; and the objects in view are to provide a convenient and safe device whereby persons may descend from burning buildings to the ground, said device being under the immediate control of the person descending; furthermore, to provide a safe and extensible platform whereby the person may mount the escape and will be supported during his descent at a proper distance from the burning building.

With the above and other 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 fire-escape constructed in accordance with my invention, the same being in position for use. Fig. 2 is a longitudinal vertical section, the platform being closed. Fig. 3 is a detail in enlarged perspective of the escape device. Fig. 4 is a longitudinal vertical section of the same.

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

Secured to the wall of the building at each side of a window-opening is a vertical strip 1, the two strips being connected at their upper ends by a cross-strip 2. At or below the window-sill there is supported by the two strips 1 a stationary platform 3, the sides of which are provided with stationary guard-rails 4. The front end of the platform is closed by a hinged guard-rail 5, the lower edge of the said rail being hinged to the front edge of the platform, and by reins 6 the hinged rail is removably locked in a vertical position and to the rails 4.

The upper face of the platform 3 is provided near its opposite sides with ways 7, and in the same there are mounted for reciprocation the opposite sides of a telescopic movable platform 8, provided with side or guard rails 9, which at their front ends are connected by an arch 10, having at its center a suspension-ring 11. The front edge of the

platform is provided with a recess 12 of semi-circular shape, so that when the platform is extended the person escaping may pass through said recess or well without fear of coming in contact with the edges of the platform.

A series of openings 13 is formed in the bottom of the stationary platform, and a single opening 14 is formed in the movable platform, the latter opening being designed to be thrown into communication with any of the openings 13, and through the registering openings is designed to be inserted a locking-pin 15, which, for the purpose of convenience and safety, is attached by a light chain 16 to the platform 8.

The cross-strip 2 is provided with a central eye or staple 17, in which is removably hooked one end of a rope 18, the opposite end of the rope being passed through the suspension-link 11 and depending to the ground. The rope 18 is formed of either hemp or flax, as is usual, and in addition is wrapped with wire of a sufficient strength to support the weight of the person should the rope become burned by the flames issuing from the building. When not in use, the lower end of the rope may be neatly coiled upon the platform, as will be apparent.

The escape device comprises a metal tube 19, through which the rope is adapted to loosely pass, which tube is provided with a slot, the edges of the slot being upturned to form flanges or ears 20. Pivoted between the flanges or ears 20 and extending into the slot is a brake-lever 21, the lower or handle end of which extends down near the lower end of the tube, and said tube opposite the brake-lever is provided with a thumb-loop 22. Above the brake-lever the upper end of the tube has fastened thereto a flexible and, preferably, leather tube 23, which serves as a hand-hold for the person escaping. The lower end of the tube is perforated, and in the perforation there is secured the upper end of a preferably metallic rope 24, the lower end of which supports a stirrup 25 for the foot of the person. If desired, in lieu of the stirrup a small basket may be substituted.

The operation of my invention is as follows: Taking the parts in the position shown in Fig. 2, the pin 15 is withdrawn from the rear

openings 13 and 14 and the movable platform pushed out from the building, whereupon the pin is inserted into one of the outer openings and the opening 14. The front gate or guard-rail of the fixed platform, it will of course be understood, has been previously released and permitted to swing down. A series of the escape devices are mounted upon the escape-rope 18 between the arch and the window to be used by persons successively descending. In descending a person first grips the brake-lever tightly upon the rope, the thumb of the hand gripping the lever being passed through the thumb ring or loop. He then steps with one foot into the stirrup or basket, and by slightly decreasing his grip upon the lever the same releases the rope and he governs the speed of his descent, as will be apparent.

From the above construction it will be apparent that a number of persons may thus escape from a burning building without danger to life or limb, and that the rope will remain intact regardless of the heat of the flames and will be suspended at such a distance from the wall as to prevent the burning of the person escaping.

It is apparent that the escape device may be used independent of the platform, and also that the platform might be used with other escape devices; but the two are especially adapted for each other and coact to form extremely simple and effective apparatus.

Having described my invention, what I claim is—

1. In a fire-escape, the combination, with the opposite vertical strips secured to the wall of the building, a stationary platform projecting from the strips and provided with opposite ways, the rigid guard-rails, and the front movable guard-rail, of the movable platform mounted in said ways, having opposite side or guard rails, a well or recess formed in its front edge, an arch having a suspension-eye located at the front end of the movable platform, an opening formed in said platform and adapted to register with any one of a series of openings formed in the fixed platform, a pin for engaging said openings, an escape-rope depending from the eye and through the

well, and an escape device mounted on the rope, substantially as specified.

2. In a fire-escape, a window and a stationary platform projecting therefrom and provided with opposite ways, in combination with a movable extensible platform mounted in the ways and provided with a well or opening, means for adjusting the platform and locking it in position, and an escape-rope depending from said platform and through the well or opening, substantially as specified.

3. In a fire-escape, the combination, with an escape-rope and means for supporting the same, of a tube mounted for movement upon the rope, provided with a slot having up-turned opposite flanges, a brake-lever pivoted within the flanges and projecting into the slot, a stirrup depending from the tube, a flexible hand-gripping tube secured to the upper end of said tube and loosely receiving the rope, and a thumb-eye projecting from the first-mentioned tube opposite the lower end of the brake-lever, substantially as specified.

4. In a fire-escape, the combination, with the opposite vertical strips 1, the upper connecting-strip 2, the stationary platform 3, the opposite guard-rails 4, the end guard-rail 5, hinged to the front end of the platform, the opposite ways 7, the movable platform 8, said platform being perforated, as at 13 and 14, and the latter having the opening 12, the locking-pin 15, the side walls or guards 9, and the arch 10, having the suspension-loop 11, of the rope 18, engaging the staple 17 of the cross-bar 2 and passed through the loop 11, the metallic tube mounted for reciprocation upon the rope, the stirrup depending from the tube, the lever pivoted to the tube and bearing upon the rope, and the leather tube encircling the rope and connected at its lower end to the metal tube, substantially as specified.

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

ELLIS WATSON DIXON.

Witnesses:

S. HUGHES,

S. G. HUGHES.