(No Model.)

R. T. BISHOP.

FIRE ESCAPE.

No. 302,231. Patented July 22, 1884.

Fig. 1.

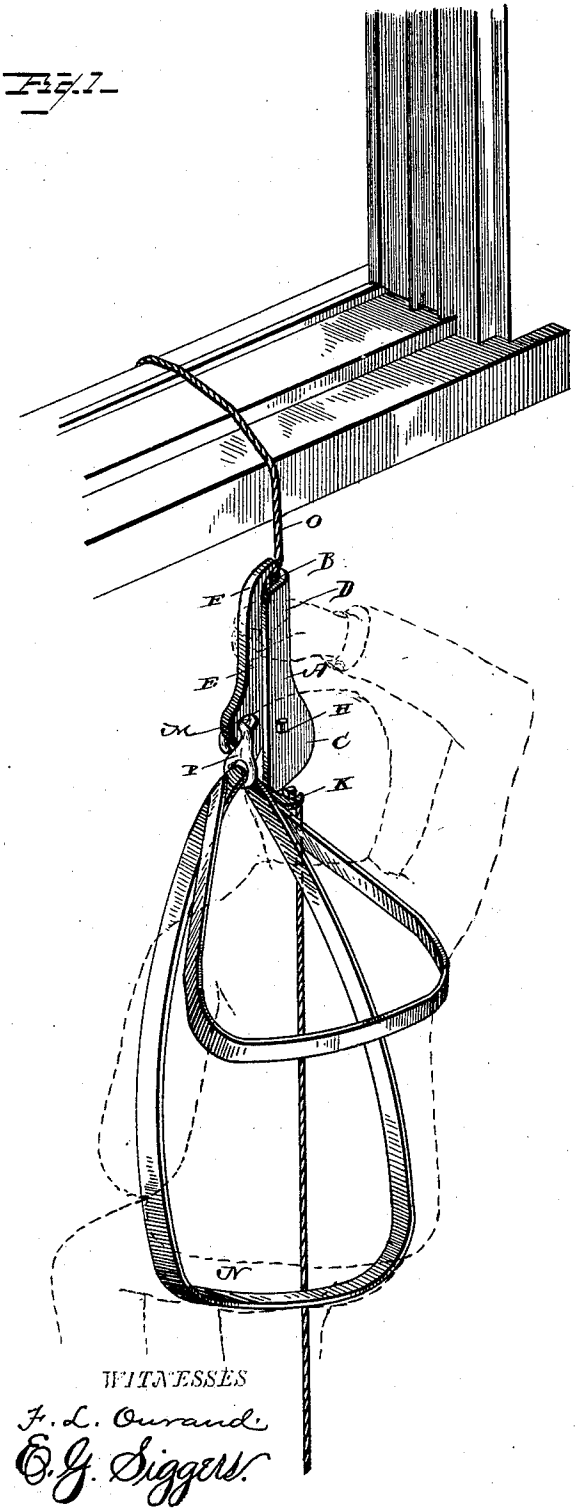


Fig. 2.

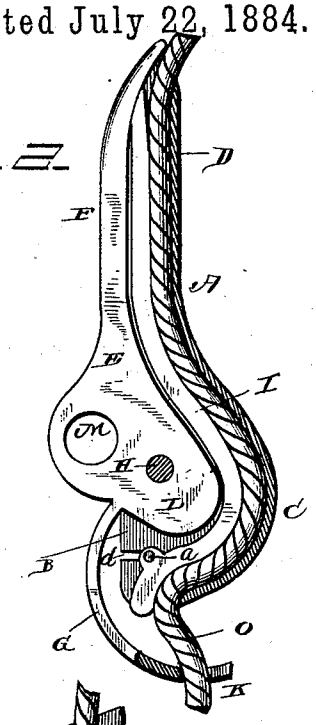
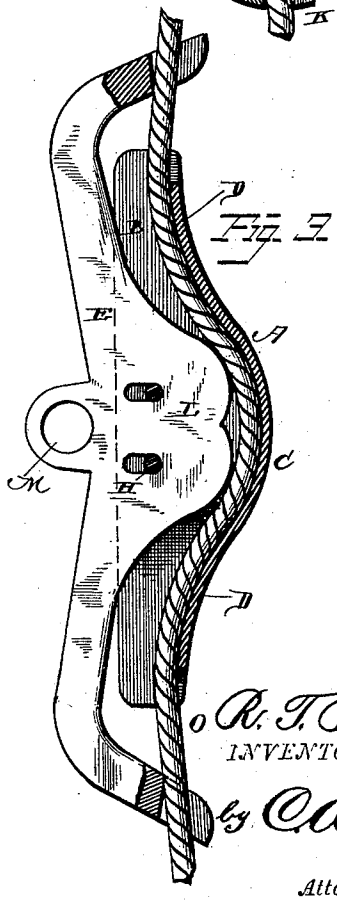


Fig. 3.



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UNITED STATES PATENT OFFICE.

RICHARD THOMAS BISHOP, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO THEODORE HUNT, OF SAME PLACE.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 302,231, dated July 22, 1884.

Application filed March 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, RICHARD T. BISHOP, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a new and useful Fire-Escape, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to fire-escapes, the design or object of the invention being to facilitate the descent or escape of persons from hotels, theaters, and other buildings.

A further object of the invention is to provide a device which may be used by firemen in an emergency, and thus provide a means of escape from many perilous positions, and enable them to save the lives of others.

A further object of the invention is to provide a simple, portable, and easily-governed device that can be used by the most inexperienced person, and, should the operator become insensible or unable to operate it, an immediate stoppage will take place, and the person may be brought down by some one on the ground below operating the cord to counterbalance the weight of the insensible person; and a still further object of the invention is to provide an improved double fire-escape, to be used by more than one person in descending from a burning building, all as hereinafter set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view illustrating my improved fire-escape in operation. Fig. 2 is a sectional view through the metallic case. Fig. 3 is a view of a double fire-escape.

Like letters of reference are used to indicate corresponding parts in the several figures.

Referring to the drawings, A designates a metallic case recessed or slotted vertically, as shown at B, the lower end of the case being formed with a bulge or swell, C, and the upper end, D, serving as a hand-hold.

E is the operating-lever, formed with two arms, F G, and pivoted by a bolt, H, between the sides or cheeks of the case A at the bulged end C, the upper arm, F, of the lever terminating in a handle, and the lower arm, G, extending downwardly around the lower end of the case A, and having its end forked, as at K, the rope being passed through the forked end. The lever E is formed with a cam, L, which extends and works through the slot B in the bulged end C, and a loop, M, is also formed on the lever beyond the case A, and on a line with the pivot-point H, a seat, N, being attached to the loop, as will be presently described.

O designates the rope, constructed of any suitable material, passing through the case from top to bottom, and around the cam L, somewhat in the shape of a letter **S**, said rope being coiled on a reel when not in use, or arranged in any way unfastened. A sheath or pad, I, of metal, is interposed between the rope O and the lever E, and extends from the top to the bottom of the case A, the lower end of the sheath or pad having a pin, *a*, projecting laterally, and working in slots *d* in the side of the case.

The seat N comprises belts or loops, to be buckled or otherwise fastened around the hips and under the arms, and thus form a secure and safe sling in which the person may sit, a hook, P, being attached to the upper end of the seat or sling, and detachably connecting the seat with the loop M of the operating-lever, as will be seen.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the annexed drawings. The loops or belts of the seat or sling should be fastened around the hips and under the arms, so as to prevent the person from falling out, and is then hooked to the loop M, and the end of the rope O secured to the window-sill, or to any article of furniture in the room. The other end of the rope is thrown to the ground, and the person begins to descend. The weight of his body hanging to the loop M will cause the lever E to press the cam tight against the sheath or pad I, which bears against the case, thereby acting as a brake, and preventing the case from slipping down the rope. When he is quite ready to descend, the lever E and the hand-hold D are gently pressed together until this brake is relieved, allowing the person to slide with the case at any desired speed down the rope in safety. By releasing the pressure on the handle F of the lever the brake will be automatically applied, so as to cause the stoppage of the descent, and thus the operator is at liberty to regulate the descent without any other aid. Should the operator become insensible or unable, from any cause, to work the escape, an

immediate stoppage will take place, the operator being brought down by some one on the ground below pulling the cord to straighten it and counterbalance the weight of the person in the seat or sling.

A rubber tubing or band may be fitted over the end F of the lever, to press against the rope and prevent the possibility of the operator pressing the lever E too hard to lower the case too rapidly, and thus accidents may be avoided from this cause.

In Fig. 3 I have shown my improved device as used for a double fire-escape. The ends of the case A in this construction are both constructed with the hand-holds D, and the lever E has each arm forked and extending around the case, said lever being pivoted between the sides or cheeks of the case at the bulged end C. The cam L is formed double, and is provided with elongated slots, through which extends the pivot-bolt H of the lever, the device being allowed freedom of action in reversing the parts. The seat is attached to the lever in a similar manner to that shown in Fig. 1, and the rope passes through the case from end to end between the double cam L, the operation of the escape being substantially the same. In using this double fire-escape after one person has descended, should it be required to bring down another one end of the rope is drawn up and fastened, and the other end, which was formerly fastened in the room, is thrown out of the window to the ground, the trip to the ground being operated in a similar manner. This operation may be repeated as often as desired. Since the double fire-escape runs both ways it is always in position for immediate use, and there is not a possibility of making a mistake.

My improved fire-escape can be instantly attached to a rope of any suitable size, and thus the length of the same may be accommodated to different heights.

The escape above described is simple, inexpensive, durable, convenient, and effective, and will prove of great utility in use.

It will be seen that the cam L, pressing against the sheath or pad I, gives a much better control on the rope than otherwise, so that no matter how heavy the person may be who is descending, there will be no danger of the case slipping down too rapidly on the rope.

In order to define more clearly the nature and advantages claimed for my invention, I would have it understood that I do not claim, broadly, a fire-escape in which the brake is caused to act by the weight of the person descending in the same. Furthermore, I would have it understood that a handle has been employed to engage with the rope and regulate the descent. I do not claim either of these constructions, as they do not attain the objects of the present invention, and are objectionable in many respects.

Having described my invention, I claim—

1. In a fire-escape, the combination, with the case having a bulged portion, of an operating-lever pivoted in the same and formed with one or more cams extending within the bulged portion, a rope passing through the case around the cam or cams, and the seat or sling attached to the lever adjacent to the cam or cams and near the pivotal point of the lever, as set forth.

2. In a fire-escape, the combination, with the case A, of an operating-lever pivoted in the same, and formed with one or more cams, a rope passing through the case around the cams, an operating-handle at the end of the lever, and the seat or sling secured to the lever adjacent to its pivot-point, as set forth.

3. In a fire escape, the combination, with the case A, having a bulged end, C, of the lever pivoted in the case near said end, and formed with a cam, a rope passing through the case around the cam, a handle at the upper end of the lever for operating the same, and the seat secured to the lever, as set forth.

4. In a fire-escape, the combination, with the case A, slotted vertically, as shown, of the lever pivoted in the slot and formed with a cam, one end of said lever terminating in a handle, and the other end extending down around the case, the rope passing through the case around the cam, and the seat or sling attached to the lever, as set forth.

5. In a fire-escape, the combination, with the case A, slotted vertically, as shown, of the lever pivoted in the slot and formed with a cam or cams, a rope passing through the case around the cam in the form of a letter S, and the seat or sling attached to the lever adjacent to the pivot-point, as set forth.

6. In a fire-escape, the combination, with the case A, of an operating-lever pivoted in the same, a thin metallic sheath or pad arranged within, and extending from end to end of the case and around the operating-lever, the latter bearing directly against the sheath or pad, the rope passing through the case around the sheath or pad, and the seat or sling attached to the operating-lever, as set forth.

7. In a fire-escape, the combination, with the case A, of an operating-lever pivoted in the same, a metallic sheath or pad interposed between the lever and the case, and a pin projecting from the sheath or pad and working in slots in the sides of the case, as set forth.

8. In a fire-escape, the case A, having a bulged portion, C, in combination with the operating-lever pivoted in the case and formed with one or more cams, a rope passing through the case around the cams, and the seat or sling attached to the operating-lever, adjacent to the cams, as set forth.

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

RICHARD THOS. BISHOP.

Witnesses:
THEODORE HUNT,
SAMUEL BISHOP.