(No Model.)

G. F. WARWICK.

FIRE ESCAPE.

No. 368,633. Patented Aug. 23, 1887.

Fig. 2.

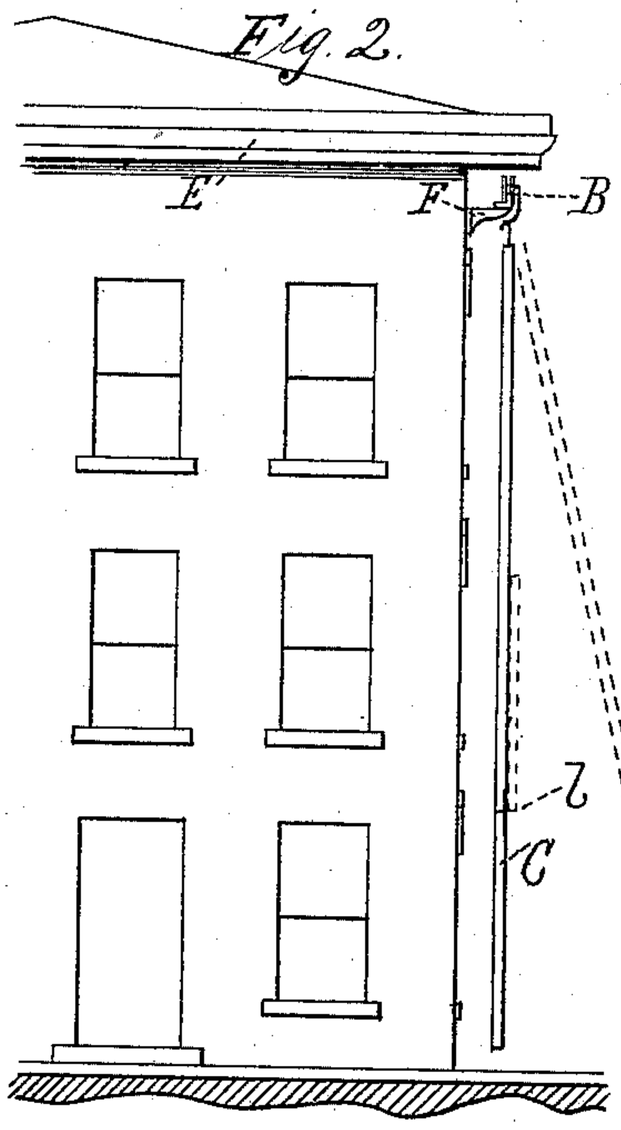
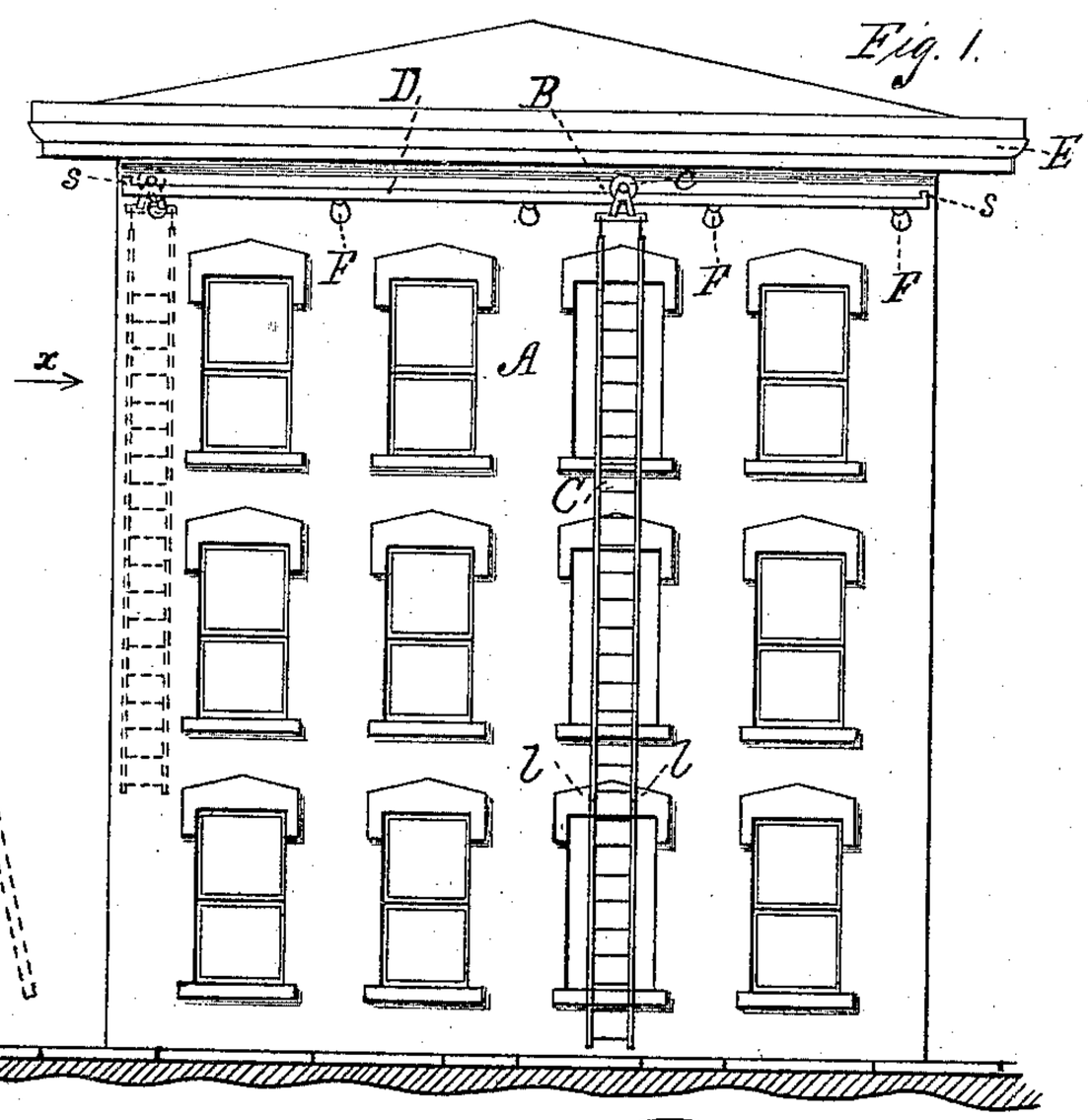


Fig. 1.



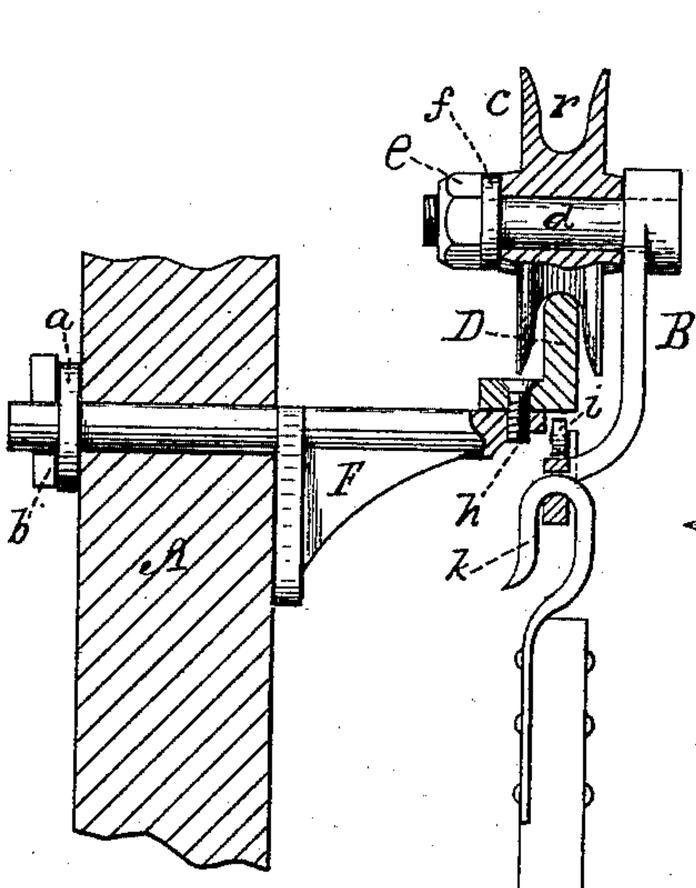


Fig. 3.

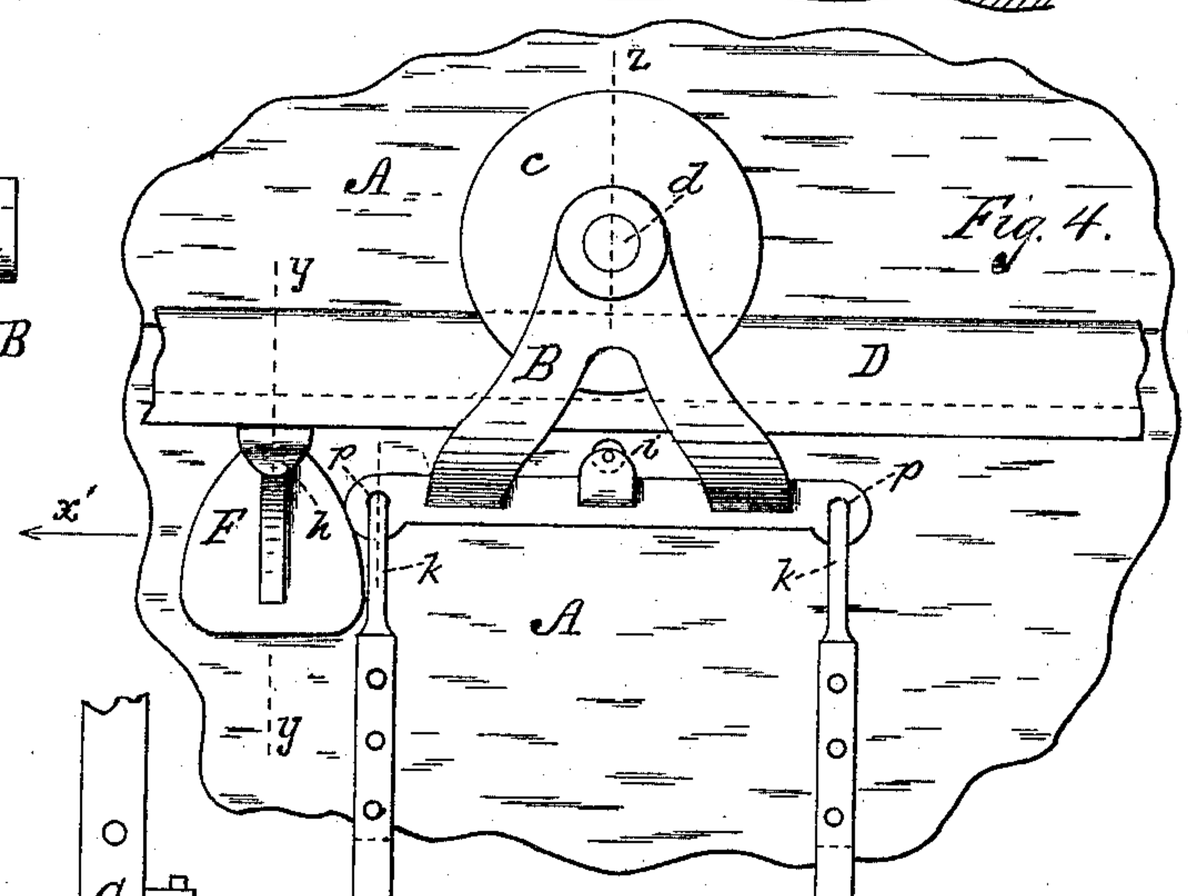


Fig. 4.

Fig. 5.

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UNITED STATES PATENT OFFICE.

G. FRED. WARWICK, OF BROCKPORT, NEW YORK.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 368,633, dated August 23, 1887.

Application filed May 9, 1887. Serial No. 237,542. (No model.)

To all whom it may concern:

Be it known that I, G. FRED. WARWICK, of Brockport, in the county of Monroe and State of New York, have invented a new and useful Improvement in Fire-Escapes, which improvement is fully set forth in the following specification, and shown in the accompanying drawings.

The object of my invention is to produce a novel fire-escape, the same consisting substantially of parts and devices hereinafter fully described, and more particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a side elevation of a building, showing my improved fire-escape attached in place, the suspended ladder being shown in two positions by full and dotted lines; Fig. 2, a view of the device seen as indicated by arrow *x* in Fig. 1, the suspended ladder being shown in various positions by full and dotted lines. Fig. 3, drawn to a larger scale, shows the parts as seen in Fig. 2, the wall of the building, the track, and part of one of the supports for the latter being vertically sectioned through the axis of said support, as on the dotted line *y y* in Fig. 4, and the carrying-wheel in part vertically sectioned through its axis, as on the dotted line *z* in Fig. 4, parts being broken away. Fig. 4, drawn to the same scale, is a front elevation of the parts, seen in the direction in which Fig. 1 is seen, also as indicated by arrow *x'* in Fig. 3, parts being broken away; and Fig. 5, a view showing parts of the ladder and a catch for holding the folded part of the ladder, the parts shown in said figure being viewed in the direction in which Figs. 2 and 3 are seen.

Referring to the parts, A represents the outer wall of the building and E the cornice.

C is a ladder suspended from a horizontal track, D, by means of a carrier, B. The track is held by supports F some distance from the face of the wall, said supports being secured to the wall by some simple means, as by passing through with a plate, *a*, and key *b*, at the inner surface of the wall. The carrier B is provided with a grooved carrying-wheel, *c*, held to turn upon a rigid shaft, *d*, the inner end of the shaft being threaded and provided with a nut, *e*, and washer *f*.

The lower part of the carrier turns under the track, so that the ladder, which is attached thereto, shall pend directly under the track. The track is preferably made of angle-iron, as shown, and held to the supports by simple means, as bolts *h*. The carrying-wheel is deeply grooved, so as not to be easily lifted from the track, and, as a further safeguard against it being by any means raised from the track, I provide the carrier with a safety-roller, *i*, which is held directly under the track, but slightly away therefrom, as shown.

The ladder may be made of wood or metal, as desired, and attached to the carrier by any simple means, such as long hooks *k*, passed through holes *p*, said holes or the bearing-points between the ladder and carrier and bearing-point of the carrying-wheel upon the track being in the same vertical plane.

It will be understood from this description that the ladder may be moved along the track at will, so as to be presented to any of the windows of the side of the building, as necessity may require. The lower end of the ladder being near to the ground, it may be moved to any point by persons standing upon the ground, or otherwise by persons reaching out of the various windows near the ladder.

The groove *r* in the carrying-wheel is made wider than the track and flaring, as shown, so as to admit of the lower end of the ladder being drawn away from the building, as indicated by dotted lines in Fig. 2, by persons standing upon the ground. This may be sometimes found necessary to protect the person descending the ladder from the heat or flames issuing from the windows. The hooks *k* rest freely in the holes *p* in the carrier, which also admits of this outward swinging of the ladder at the lower end.

At the point *l* above the lower windows the ladder is divided and provided with hinges *n*, by means of which the section of the ladder below the parting *l* may be folded or moved upward by the side of the part of the ladder above it, as indicated by dotted lines in Figs. 1 and 2. A simple spring-catch, *o*, Fig. 5, is secured to the side of the ladder in position to catch and hold the lower end of the lower section of the ladder when folded, as stated. Any simple form of automatic catch or detent may be employed. To prevent the carrier from running off the track at the ends thereof some

simple stops may be employed—as, for instance, projections *s* at the ends of the track to act against the wheel.

The ladder is designed to at all times hang from the track on the outside of the wall ready for use; but usually, or when not in use, it is drawn to one side of the windows—as, for instance, to the position shown in dotted lines in Fig. 1. The bottom section is at the same time folded for the purpose of rendering the ladder inaccessible to persons upon the street or others who may design to use it for an improper purpose. The division *l* of the ladder is at such a point that the catch or detent *o* is in easy reach of a person standing in a second-story window, and upon the alarm of fire the lower section of the ladder is quickly released from the detent and turned downward to the ground. It may then be seized by persons upon the ground and the ladder moved laterally along the track to any window at which there may be people wishing to escape.

These ladders, with their tracks, &c., may be of course supplied to any or all of the exposed sides of the building, and in case a side of the building is broad a number of ladders may be suspended from the same track, which is intended to extend from corner to corner, or wholly across the face of the building.

In case of a building having a round corner the track may extend around the corner in a curve, so that the ladder can be moved around from one side of the building to the other.

What I claim as my invention is—

In a fire-escape, a horizontal track formed of angle-iron, one leaf of which iron is vertical and the other horizontal and projecting toward the wall, and supports for said track placed beneath said horizontal leaf and secured rigidly to said leaf, in combination with a carrier having a frame holding a grooved wheel to roll upon the upper edge of said vertical leaf of the track, and a safety-roller held vertically under said vertical leaf and out of contact therewith, and a pendent ladder attached to said carrier, substantially as shown.

G. FRED. WARWICK.

Witnesses:

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