No. 662,875. Patented Nov. 27, 1900.

W. NEWBURN.

FIRE ESCAPE.

(No Model.) (Application filed July 7, 1900.)

Fig. I.

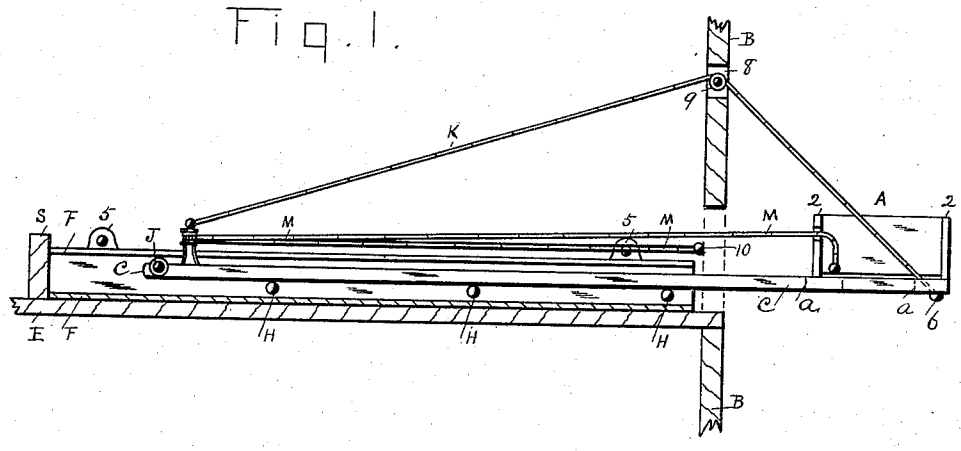
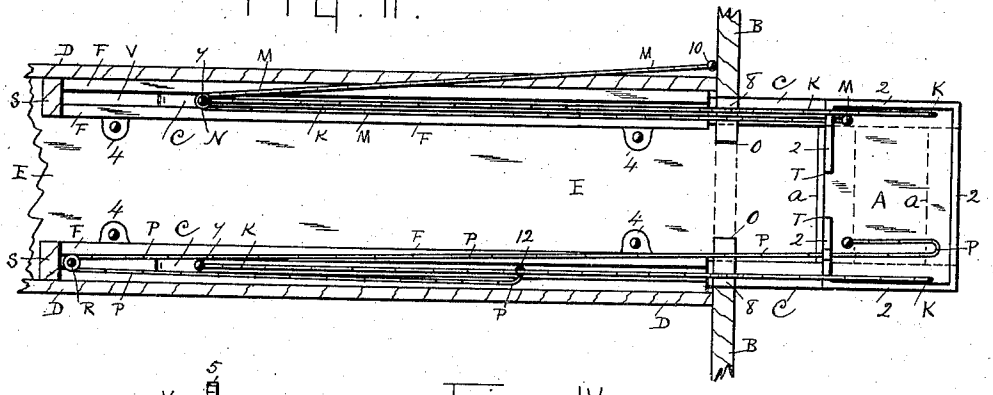


Fig. II.



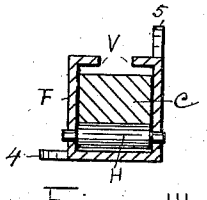


Fig. III.

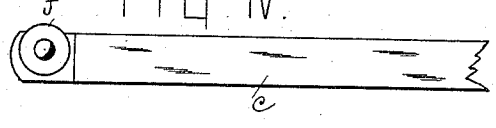


Fig. IV.

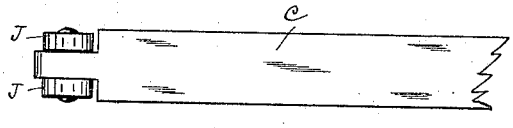


Fig. V.

Witnesses.
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UNITED STATES PATENT OFFICE.

WALTER NEWBURN, OF HAMILTON, CANADA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 662,875, dated November 27, 1900.

Application filed July 7, 1900. Serial No. 22,812. (No model.)

To all whom it may concern:

Be it known that I, WALTER NEWBURN, a citizen of the United States, residing at Hamilton, in the county of Wentworth and Province of Ontario, Canada, have invented certain new and useful Improvements in Fire-Escapes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in fire-escapes in which a balcony or stage is located at the exterior of a large building and at the end of the hall or corridor of the upper floors or stories, said balcony capable of being brought out a distance from the burning building to escape the heat thereof.

The objects of my invention are, first, to provide a balcony fire-escape capable of holding a number of people; second, to afford facilities whereby the balcony may be drawn out at right angles from the wall of the building to escape the heat of the wall and the issue of smoke and flames from out of the windows, and, third, to provide a balcony or stage at a suitable distance from the building whereon firemen may stand to play water on the building. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure I is a side elevation of my improved fire-escape partially in section, the balcony being shown brought out a short distance from the wall of the building. Fig. II is a plan of the same, showing the horizontal casings or guides for the parallel arms of the balcony, said casings located in the hallway. Fig. III is an enlarged section near the end of one of the two rigid guides with inclosed slidable arm of the balcony. Fig. IV is an enlarged side elevation of the inner end of one of the two said slidable arms, and Fig. V is a plan of the same.

Similar letters and figures refer to similar parts throughout the several views.

In the drawings, A is the balcony or stage, of metallic construction and provided with a suitable safety-fence 2, of chaste design and of proper height to insure safety to the people on the balcony. The balcony ends of these arms are braced together by transverse bars *a*, which, together with the arms *c*, support the floor of the balcony. This balcony is located on the exterior side of the wall B of the building and has two parallel arms *c*, which extend into the building a sufficient distance to allow the balcony to be drawn out, say, fifteen feet, more or less, from the wall B of the building.

D represents the two side walls of the hall, and on the floor E of the hall and close to the walls D are the casings or guides F, rigidly secured to said floor E by means of lugs 4 and to the walls D by means of lugs 5. The guides F may be inserted wholly or partially into the floor and also partially inserted in the walls D. The lower parts of the guides have a series of rollers H, which support the arms *c* of the balcony, and to enable said arms to slide in the guides as easily and freely as possible these rollers will be suitably positioned in the casings in order to bear the weight of the arms with the balcony when the same is drawn out to its full extent. The greatest weight would then be on the rollers nearest to the wall B. The arms *c* are provided with rollers J at their inner ends, the peripheries of said rollers protruding beyond the tops of the arms to engage with the upper parts of the guides in order to avoid much friction and to assist the arms in their operation. These rollers are important to facilitate the operation of the arms. Guy-cables K are employed to assist in supporting the balcony. One end of each of these cables is attached at 6 to the balcony and the other end of each of the cables is attached to the rear and top parts of the arms, as at 7. The central parts of the cables are elevated and passed through openings in the wall B or doorway, as at 8, and are supported in said openings, which may be formed as smooth bearings for the cables K, or rollers 9 may be provided to support the cables in said elevated position to support the balcony, which when brought out the said cables follow. To draw the balcony outward, the end of a cable M is securely attached to the wall B at 10 and passes around a cable-pulley N, which is connected to the upper and rear part of an arm *c*, immediately below the attachment of a guy-cable K. This cable M extends into the balcony, as shown in Figs. I and II of the

drawings. When this cable M is drawn outward, the balcony is drawn outward thereby. In order to draw the balcony inward—that is, against the wall B—and opposite the opening O in the wall and at the end of the hallway, one end of a cable P is securely fastened to the upper part of an arm *c* of the balcony, and at a short distance from the inner side of the wall B, as at 12, this cable passes around a cable-pulley R, which is connected to a strong bracket S of the wall D. This cable extends to the balcony and must of necessity be of sufficient length in the balcony to allow of taking hold of the cable when the balcony is brought outward to its full capacity. When this cable P is drawn outward, the balcony is drawn inward to the wall B, as previously stated.

V is a longitudinal opening in the top of the guides F to allow the operation of the guy-cable fastenings and for the connection of the draw-cable to the arms of the balcony.

It will be noticed that the fence around the balcony has an opening T for ingress and that the people may leave the balcony by means of ordinary fire-escapes—for instance, by ladders of various kinds or other means. This balcony will take the people from a burning building to a safe distance from the heated wall and from the smoke and flames that may issue from out of the windows of the building.

It will be obvious that when the building is large more than one balcony or fire-escape may form a permanent attachment to the building. The balcony will be constructed of proportionate dimensions and of chaste and proper design to suit the requirements of the case. Also the rollers H will be free from the bottom of the guides F and the rollers J will engage the top of the guides only.

Various changes in the form, proportion, and minor details of this invention may be resorted to without departing from the spirit and scope thereof. Hence

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a fire-escape, a balcony, parallel arms supporting said balcony and extending a distance in the interior of a building, casings or guides for said arms firmly secured to the floor and walls of a hallway in the building, guy-cables secured to the upper and the rear parts of the arms there being longitudinal openings in the tops of said guides for the fastenings of the cables to slide in said cables supported on elevated rollers, the outer ends of said cables secured to the balcony to support the same when drawn out, and means in the balcony whereby the same may be drawn outward or inward to position.

2. In a fire-escape, a balcony, parallel arms extending from the balcony into the interior of a building, stationary guides for said arms, guy-cables secured to said arms and to the balcony, said cables suspended over elevated rollers to support the balcony, openings in the guides to allow the guy-cable fastenings to operate therein, a cable-pulley connected to the upper part of one of said arms, an operating-cable, one end of the cable attached to the building and passed over said pulley and extended to the balcony to draw the balcony outward, as described.

3. A fire-escape comprising horizontal stationary guides, arms capable of sliding in said guides, a balcony on the outer ends of the arms, suspended guy-cables attached to the inner ends of said arms and to the outer parts of the balcony and means in the balcony whereby the same may be drawn outward and inward to position against the wall of the building, as described.

4. A fire-escape, comprising a balcony, horizontal arms supporting said balcony and extending into the interior of the building, parallel and stationary guides in the building for said arms, rollers in the guides to support the arms, rollers at the inner ends of the arms to engage with the upper parts of the guides, suspended guy-cables attached to the arms and to the balcony, to support the same, and means in the balcony for drawing the same outward and inward to position, as described.

5. In a fire-escape, a balcony, horizontal and parallel arms, extending from the balcony into the building, stationary guides, rollers in the guides to support the arms, rollers at the inner ends of the arms to engage with the upper parts of the guides, guy-cables loosely suspended above said arms and attached to said arms and to the balcony to support the same, there being longitudinal openings in the guides to allow the guy-cable fastenings to operate, a cable-pulley connected to the upper part of one of said arms, an operating-cable, one end of the cable attached to the building and passed said pulley and extended to the balcony to draw the balcony outward from the building, and an operating-cable over a pulley above the inner end of a guide, one end of said cable attached to one of said arms and the other end extending to and in the balcony, to draw the frame inward, as described.

In testimony whereof I affix my signature in presence of two witnesses.

WALTER NEWBURN.

Witnesses:
JOHN H. HENDRY,
JOHN A. LEGGATT.