

UNITED STATES PATENT OFFICE.

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 708,838, dated September 9, 1902.

Application filed May 20, 1902. Serial No. 108,195. (No model.)

To all whom it may concern:

Be it known that I, ALFONZO SFERLOZZA, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Fire-Escape, of which the following is a full, clear, and exact description.

My invention relates to fire-escapes, more particularly of the type used in conveying the inmates of a building to the ground by means of a movable scaffold.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of a building, showing my invention as applied thereto. Fig. 2 is a vertical section upon the line *x x* of Fig. 1 looking in the direction of the arrow, and Fig. 3 is a horizontal section upon the line *y y* of Fig. 1 looking in the direction of the arrow.

Upon the building 1, which is provided with windows 2 2 3 3 4 4 in the usual manner, are mounted water-pipes 4^a, provided with water-plugs 5 6 7 7, whereby hose-lines may be secured in the usual manner. A pair of beams or shoes 8 8, which slide in guides 7^a, are connected together by yokes 9 9 and are provided with balconies 10 11, thus constituting a movable scaffold with two balconies. The balconies are provided with railings 12 13 to prevent the occupants from falling to the ground. The balcony 10 is provided with an aperture 14, and the balcony 11 is provided with a somewhat-similar aperture 15. These apertures enable persons to pass through the floors of the balconies to the ladder 16, connecting the two balconies, and to the ladder 17, which is stationary and communicates with the ground or sidewalk. The two sliding beams or shoes 8 are further connected by a cross-beam 17^a, to which are secured the ropes 18 19, these ropes engaging pulleys 20 21 and being free to wind upon and unwind from the drum 22, which may be actuated by a belt or other known mechanical expedient 23. When the drum 22 is caused to rotate, the ropes 18 19 cause the beam 17^a to be raised or lowered, this beam of course carrying with it the entire scaffold, with its two

balconies and the occupants thereof. A stop-plate 24 is provided, preferably adjacent to the sidewalk, and sustains the weight of the scaffold when the same is in its lowermost position. The cornices 25 of the windows are not engaged by the scaffold or any of the balconies, for the reason that the balconies are spaced asunder from the building by the brackets 26, as indicated more particularly in Figs. 1 and 2. As shown in Fig. 3, the beams or shoes 8 are slidably mounted within the guides 7^a by means of a tongue-and-groove connection. Upon the balconies are mounted movable shields 27 28, provided with slots 29 30, which engage pins 31 32, thereby enabling the shields to be adjusted by hand. These shields are for the purpose of screening the occupants of the balconies from heat due to the conflagration from which they are attempting to escape. It may happen, for instance, that the fire is adjacent to one of the windows 4 and that it may therefore be necessary for the refugees to pass in close proximity to the flames. They simply adjust the shields 27 or 28 in the most favorable position for this purpose, and are thereby protected as the scaffold passes through the heat. A vertical bar 33, preferably of iron, extends between the shoes 8 8 and serves as an additional guide for the scaffold. A casing 34 may be provided, if desired, for the purpose of protecting the ropes 18 19 from the heat.

The operation of my device is as follows: When a fire breaks out and other means of escape are cut off, the scaffold is raised to the particular flat where the refugees are to be found. If there be refugees in more than one flat, the scaffold is raised to a position in which the two balconies will correspond to two consecutive flats. In this way the occupants can escape from two flats at the same time. The balconies being filled or all of the occupants of one or more flats having been taken aboard, the scaffold is lowered by means of the drum 22 and is then raised for another trip. Meanwhile the firemen ascending upon the scaffold can fasten the hose-lines to the water-plugs 5 6 7 and may run the hose-lines in at the windows or otherwise dispose them to advantage in extinguishing the fire. It may happen that the refugees are located in a particular flat, while the fire

may be attacked advantageously from another flat. In that event the scaffold may be so disposed that the firemen are free to fasten the hose-lines to the plugs of one flat while the refugees are being taken aboard from another flat. This feature is of great advantage, as may be readily seen.

I do not limit myself to any particular means for operating the drum 22, because obviously it may be actuated by any mechanical expedient suitable for the purpose, such as steam, compressed air, or water-power.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A fire-escape, comprising a track connected with a building, a scaffold slidably mounted upon said track, mechanism for raising and lowering said scaffold, shields mounted upon said scaffold for protecting the occupants thereof from heat, and means for adjusting the positions of said shields relatively to said scaffold.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALFONZO SFERLOZZA.

Witnesses:

WALTON HARRISON,
EVERARD BOLTON MARSHALL.