

(No Model.)

E. A. COSTIGAN.

FIRE ESCAPE.

No. 264,065.

Patented Sept. 12, 1882.

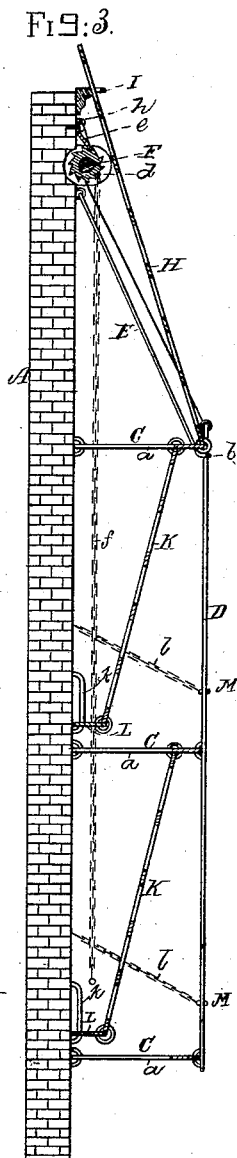
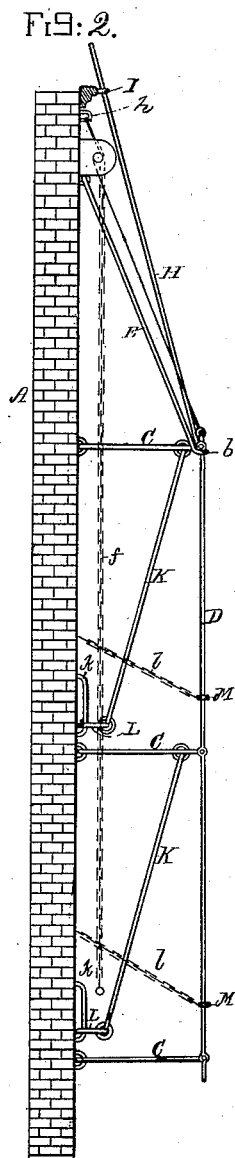
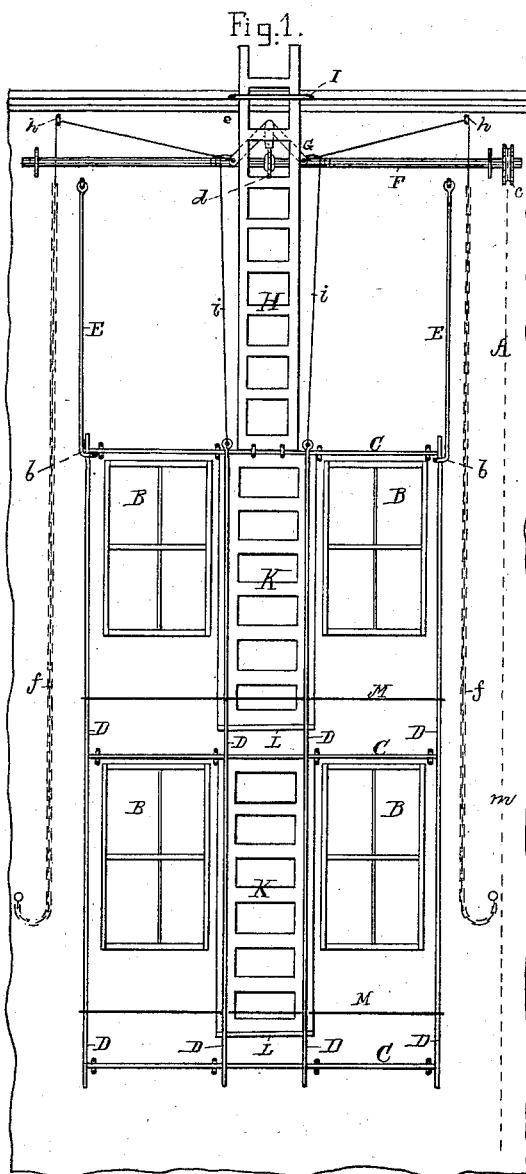
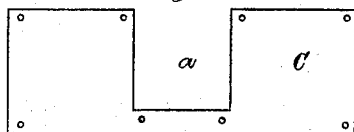


Fig. 4.



Witnesses
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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 264,065, dated September 12, 1882.

Application filed April 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWARD A. COSTIGAN, of Boston, in the county of Suffolk, of the State of Massachusetts, have invented a new and useful Improvement in Fire-Escapes; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a front elevation, Fig. 2 a side view, and Fig. 3 a vertical and median section, of a fire-escape of my invention as applied to the front of a building, the nature of the said invention being defined in the claims herein-after presented.

In such drawings, A denotes the front wall of a building, it having, as usual, windows B to each of the stories. Immediately above two next adjacent windows of each story, except the upper one, there is hinged to the front face of the wall a platform, C, having a hatchway or opening, *a*, through it at its middle, as shown in Fig. 3 and also in Fig. 4, which is a top view of such platform. At their outer corners and near their middles these platforms are connected by four vertical rods, D D D D, jointed to them, so as to admit of the set of platforms being simultaneously turned from their horizontal up into vertical positions against the front of the building. Other rods, E E, arranged as shown and hinged at their upper ends to the building, extend downward to the rods D D, which go through eyes *b b* at the lower ends of the said rods E, the said eyes being horizontal and extended underneath the upper platform at its outer corners.

Above the rods E, and applied to the front of the building, is a shaft or windlass, F, provided at one end with a grooved wheel, *c*. There is also fixed on the shaft or windlass at its middle a ratchet or toothed gear, *d*.

Pivoted to the front wall, above the gear *d*, is a knee-lever, G, provided at its middle with a pawl or auxiliary arm, *e*, to engage with the gear *d*. Chains *f* extend from the arms of the lever G to and through guide-eyes *h*, and thence downward, as represented. Furthermore, from the two median rods D D wire ropes *i i* lead and are fastened to the shaft or windlass.

To the upper platform, at its middle and near its outer edge, a ladder, H, is jointed at its foot, and extends up to and through a staple, I, projecting from the cornice of the wall,

this ladder being to enable a person to escape from the roof of the building to the uppermost platform.

To the front of the opening through each platform, except the lowest of the three, a ladder, K, is jointed at its upper part, and extends downward in manner as represented, and at its foot is jointed to the outer edge of a small but auxiliary platform, L, supported by and adapted to slide vertically in staple-guides *k k*, projecting from the building.

To each main platform, and adapted to slide vertically in its sustaining-rods D, is a metallic rod or guard, M, which, when the platform is down to a horizontal position, is supported at a suitable distance above it by chains *l l*, extending from the said guard to the front wall of the building and fastened thereto.

By having a chain, *m*, fixed to the wheel *c* and wound about such, and depending therefrom to the guard or sidewalk in front of the building, the windlass, on the chain being drawn downward, will be revolved, whereby the ropes connecting such windlass with the uppermost platform will be wound upon the windlass and all the platforms and ladders will be raised into vertical positions or flattened against the front wall of the building. In this way the fire-escape, when not wanted for use, can be drawn upward against the front of the building, so as to project but little therefrom. In such case the pawl is to be drawn into engagement with the ratchet-wheel, and with such will retain the fire-escape in its folded or turned-up state. On taking hold of one of the chains *f* and drawing it downward the pawl may be moved laterally out of the wheel, so as to enable the fire-escape to drop down into a position for use.

From the above it will be seen that in case of a building provided with such a fire-escape taking fire a person on the roof can escape therefrom by the uppermost ladder to the uppermost platform, and from such through its hatchway and down the ladder immediately under the said platform, and thence from platform to platform. So, in case of escaping by a window, a person can jump from such upon the platform next below it and descend from platform to platform.

What I claim as my invention is as follows, viz:

1. The combination of the series of two or more platforms, C, hinged to the front of the building, with their supporting-rods D and E, and with one or more auxiliary platforms, L, and their ladders K, all being adapted and to operate substantially as set forth.

2. The combination of the ladder H, leading from the uppermost platform to the cornice, and through a guide or staple, as described, with the series of two or more platforms, C, hinged to the front of the building, and with the supporting-rods D E and one or more auxiliary platforms, L, and their ladders K, all being adapted and to operate substantially as set forth.

3. The combination of a platform hinged to the front of a building with a ladder leading upward or downward from such platform, and hinged thereto, so as with it to be capable of folding upward and flatwise against the front of such building.

4. The combination of one or more platforms C, hinged to the front of a building, with one

or more ladders, applied as described, and with mechanism for supporting said platform or platforms when horizontal, and mechanism for elevating such platform or platforms and ladder or ladders in manner and flatwise against the said building as set forth.

5. The combination of the knee-lever and its pawl and the operative chains of the latter with the windlass and its ratchet or gear wheel applied to the front of a building, and the folding fire-escape, composed of one or more ladders and one or more platforms, arranged and applied substantially as set forth.

6. The combination of the sliding guard and its sustaining-chains with the building and a platform hinged thereto and provided with supporting-rods, as set forth, such guard being to slide on such rods, as explained.

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Witnesses:

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