

(No Model.)

E. A. COSTIGAN.

FIRE ESCAPE.

No. 284,281.

Patented Sept. 4, 1883.

Fig. 1.

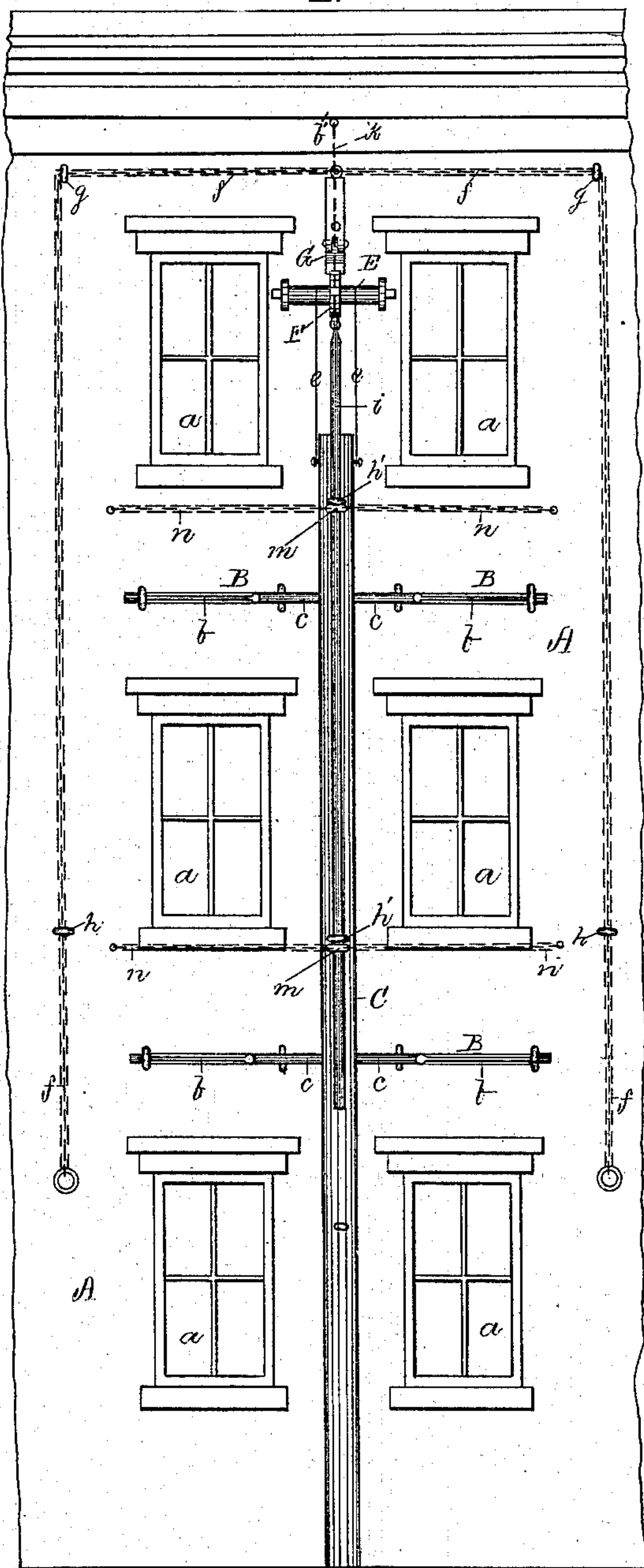


Fig. 2.

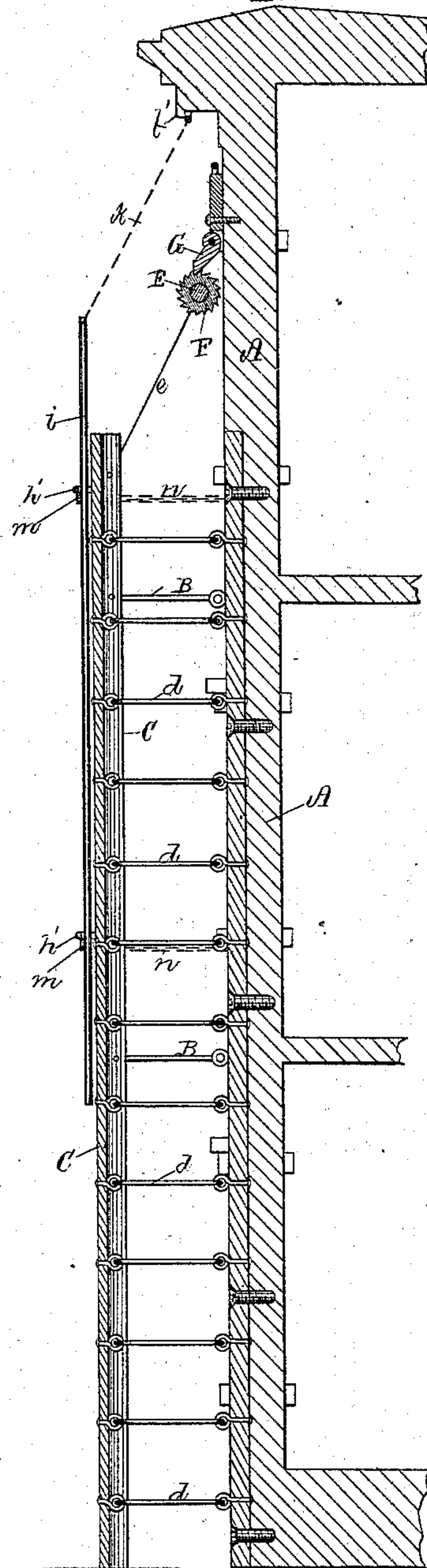
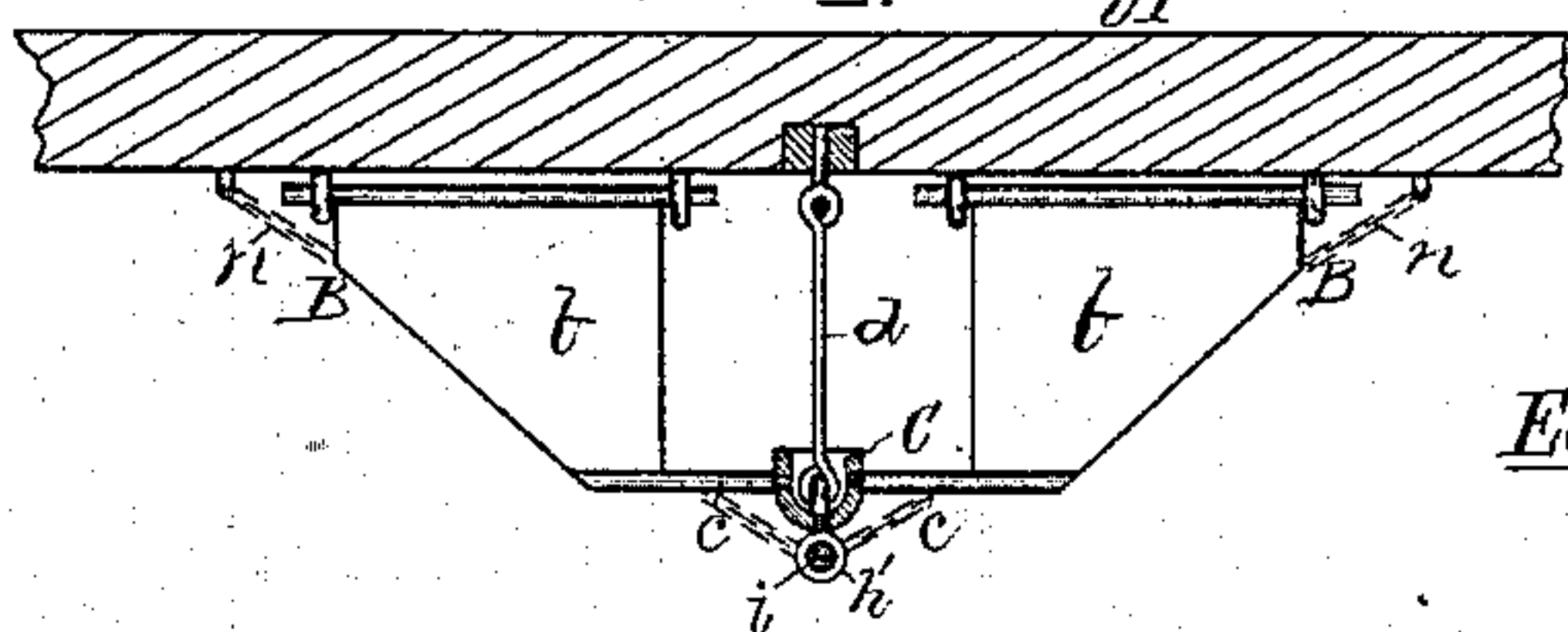


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 284,281, dated September 4, 1933.

Application filed March 12, 1883. (No m del.)

To all whom it may concern:

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

10 Figure 1 is a front elevation. Fig. 2, a vertical and transverse section, and Fig. 3 a horizontal section, of a fire-escape of my improved kind applied to the front of a building.

This fire-escape is composed, mainly, of a
15 long bar and a series of rounds, and one or more platforms arranged with and pivoted to it and the front of the building in manner and to operate substantially as hereinafter described.

In the drawings, A denotes the front wall of
20 a building provided with windows in the different stories, as shown at *a a*. Below the windows of the third story, and each story over it, there is hinged or pivoted to the building one or a series of platforms, B, each consisting of two sections, *b b*, connected at their
25 outer edges by rods *c*, which at their inner ends extend through the sides of the ladder-bar C. This ladder-bar C, arranged as shown, has jointed or pivoted to it and the face of the
30 building a series of rungs, *d*, which with the platform or platforms turn upward with the bar when it is drawn upward, and held with it against the face of the building. The bar may be channeled on its inner side, so as, when
35 it may be turned up, it shall receive within it and cover the several rounds. When the ladder is down in position, as represented in the drawings, each of the rungs and each platform is horizontal, or essentially so, the bar being
40 held in such position by means as hereinafter explained.

In case of the building being on fire, persons can escape from a window to the platform immediately below it, and from thence by the
45 rungs can descend to the ground.

For effecting the raising of the ladder and its platform or platforms, there is applied to the building, at a suitable altitude above the uppermost platform, a windlass, E, provided
50 at its middle with a ratchet-wheel, F. Ropes

or chains *e* lead from the windlass to the top of the bar, and there is pivoted to the building a lever-pawl, G, to engage with the ratchet-wheel. To the longer arm of the lever-pawl chains *f f* are applied, and led in opposite di-
55 rections horizontally through guides *g g*, and thence downward alongside of the windows and through other guides, *h h*, arranged as represented. A person at one of the uppermost windows can apply a crank to the wind-
60 lass and revolve it, so as to draw the fire-escape upward and cause it to fold against the building, upon which he can engage the lever-pawl with the ratchet-wheel, so as to prevent the fire-escape from falling outward and down-
65 ward, until a person, by pulling on one of the chains *f*, moves the lever-pawl out of engagement with the wheel.

There is applied to the bar C, so as to be capable of sliding in guides *h' h'*, projecting
70 from such bar, a rod, *i*, which at its top is connected with the cornice *b'* of the building by means of a chain, *k*. The rod below the guides *h' h'* has projections, *m*, and is further connected with the building by other chains,
75 *n n*, arranged as represented. On the fire-escape being depressed, so as to bring the rounds of the ladder horizontal, the ladder-bar C will be prevented from falling farther by the rod
80 *i* and the guides *h'*, as the projections of the rod will bring up against the guides, and the rod will be prevented by its chain *k* from falling. The lateral chains *n n* are to prevent lateral sway of the ladder.

Instead of pivoting the rounds to the front
85 wall of the building, there may be a strip of suitable material let into or fastened to the front wall, and the rounds may be pivoted to such strip; but when they can conveniently be pivoted to the building; it is generally pref-
90 erable to have them so connected therewith. The fire-escape, when in a situation for use, will at its lower end be at or about at the height of the first story above the sidewalk or ground in front of the building. The ladder-bar may
95 be of sufficient length for it to rest on the ground or sidewalk when such bar is down, in which case the bar may have a sufficient number of rounds to enable a person to de-
100 scend to the ground or sidewalk; but gener-

ally it is preferable to have the bar, when depressed, reach only down to the upper part of the first story of the building, in which case it will depend on other means, as described, 5 for holding it and the platforms in their proper positions for a person to escape from the building by them.

My said fire-escape can be constructed at a less cost and with less material than that described in the United State Patent No. 264,065, 10 granted to me, and which has its ladder or ladders arranged with the building and platforms very differently from the arrangement of such as hereinbefore explained. In my present arrangement each of the platforms is pivoted at its front to one ladder-bar only, and 15 the whole apparatus relatively to that shown in said patent is very materially simplified both in combination and operation.

20 I claim—

1. The combination of the rod and its sustaining-chain and projections with the building and with the ladder-bar and the rounds, and one or more platforms arranged with and adapted to the said bar and the building, as 25 explained, the bar having guides to receive the rod, and all being arranged in manner and to operate substantially as set forth.

2. The combination of the lateral chains *nn*, the rod and its sustaining chain and projections with the ladder-bar, having guides to 30 receive the rod, and also having a series of rounds, and one or more platforms arranged with and adapted to it and the building, all being substantially as set forth.

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Witnesses:

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