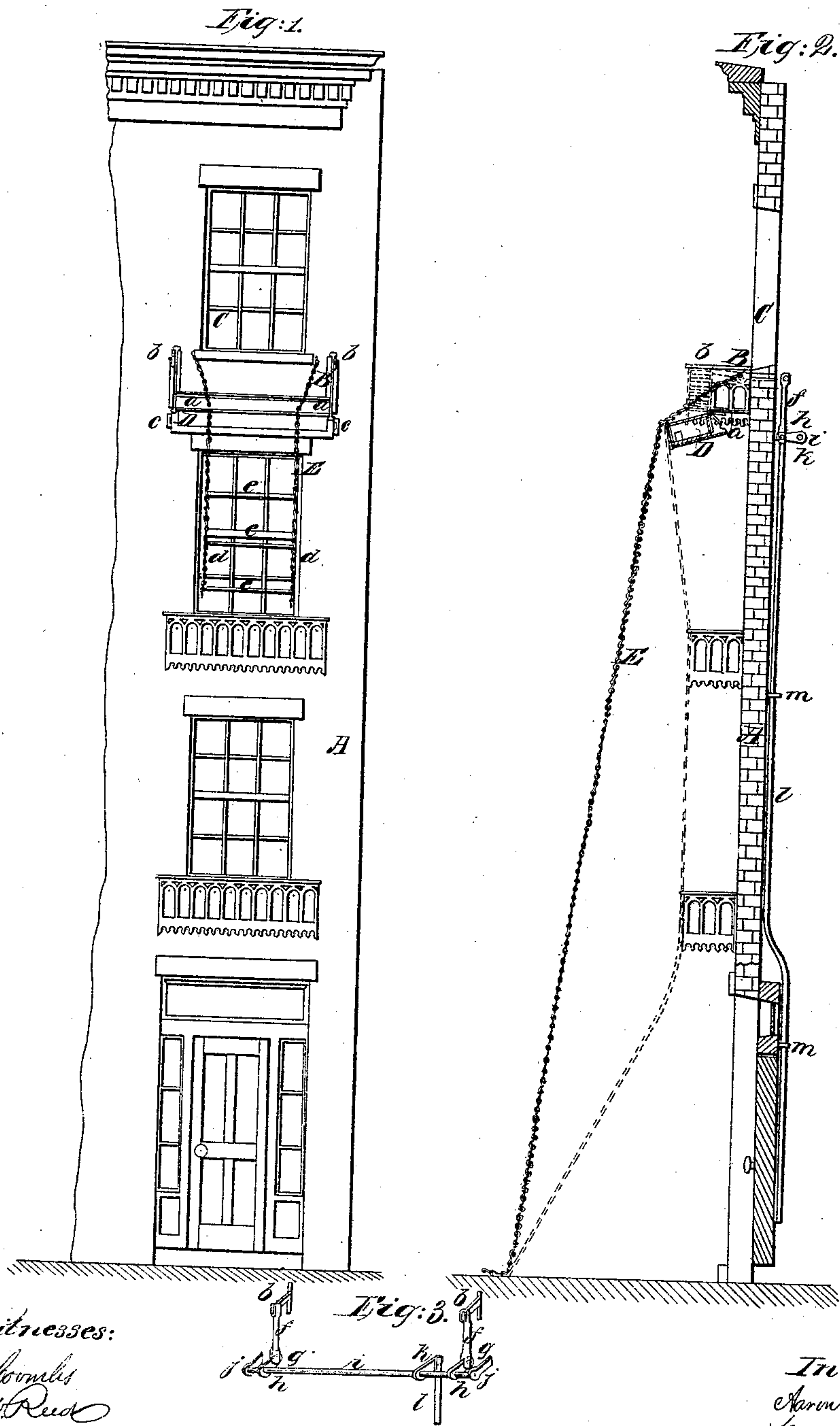


*A. Shute,  
Fire Escape.*

*N<sup>o</sup> 33,757.*

*Patented Nov. 19, 1861.*



*Witnesses:  
J. B. Smith  
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# UNITED STATES PATENT OFFICE.

AARON SHUTE, OF FLUSHING, NEW YORK.

## IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. 33,757, dated November 19, 1861.

*To all whom it may concern:*

Be it known that I, AARON SHUTE, of Flushing, in the county of Queens and State of New York, have invented a new and Improved Fire-Escape; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a front view of my invention applied to a building. Fig. 2 is a side view of the same. Fig. 3 is a detached perspective view of certain mechanism pertaining to the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in the employment or use of a flexible or chain ladder applied to a balcony of a building, or directly to the latter, in such a way as hereinafter fully shown and described, whereby the ladder may in case of fire be released in a moment of time by an inmate of the dwelling and at various parts of it and the ladder allowed to descend to the earth, affording a ready means of escape for the occupants.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a building, and B a balcony attached to it at the upper hall-window C. The balcony may be constructed of iron and secured to the building in the usual or in any proper way. The front of the balcony is formed of a box D, the lower end of which is attached by hinges or joints *a* to the floor or lower part of the balcony. This box D is retained in a vertical position and secured to the balcony by catches *b b*, which are simply levers secured one to each side of the balcony and having their front ends catch over projections *c c* at the ends or sides of the box D. In Fig. 2 the box is shown secured in an upright position by dotted lines.

E is a chain ladder constructed of two chains *d d*, having rounds *e* attached to them. The upper end of the ladder E is attached to the building just below the hall-window C and said ladder when not in use is folded within the box D, as shown by the dotted lines

in Fig. 2. The levers *b b* extend through the front of the building and are attached at their inner ends to vertical rods *f f*, (see Fig. 3,) the lower ends of which are connected by pivots *g g* to arms *h h* on a shaft *i*, the bearings *j j* of which are secured to the building. The shaft *i* has an arm *k* projecting from it and this arm is connected to a rod *l*, which is fitted in eyes or guides *m* at the inner side of the building and extends down to the lower floor, as shown in Fig. 2.

The operation is as follows: In case of fire any occupant of the dwelling, by passing into the hall of the floor on which he may chance to be, draws downward the rod *l*, and thereby actuates the levers or catches *b b* and liberates the box D, which falls by its own gravity in connection with that of the ladder E and lets down the ladder, the lower end of which may be secured to the ground by pins properly made for the purpose. The ladder E should of course be attached to the highest story of a building, and occupants may escape from any of the stories below by catching the ladder to the balconies below, as shown by the dotted lines in Fig. 2. The rod *l*, it will be understood, may be actuated from any story of the building, as it is exposed in every hall, and in case a fire is first discovered by a person without the building the door may be forced open and the rod *l* actuated to liberate the ladder at the same time the occupants are informed of the fire. In many cases it would be desirable to have an alarm connected with the rod *l* in order to rouse or warn the inmates. Any of the ordinary burglar-alarms might be used for this purpose.

I would remark that it is not actually necessary that the box D be attached to a balcony. It may be connected directly to the building and answer precisely the same end, although for the sake of appearance it would be preferable to have the box attached to the balcony.

This invention may be applied to buildings at a very moderate cost and will form a ready means of escape in case of fire. There are no parts of the device liable to get out of order or become deranged by use.

Having thus described my invention, what



I claim as new, and desire to secure by Letters Patent, is—

The chain ladder E, when connected to the building and to the tilting box D and the latter provided with catches or levers *b b*, arranged as described or in any equivalent way, so as to admit of the releasing of the box D

and the liberation of the ladder E when required, and for the purpose set forth.

AARON SHUTE.

Witnesses:

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