(No Model.)

J. FLYNN.

FIRE ESCAPE.

No. 400,656. Patented Apr. 2, 1889.

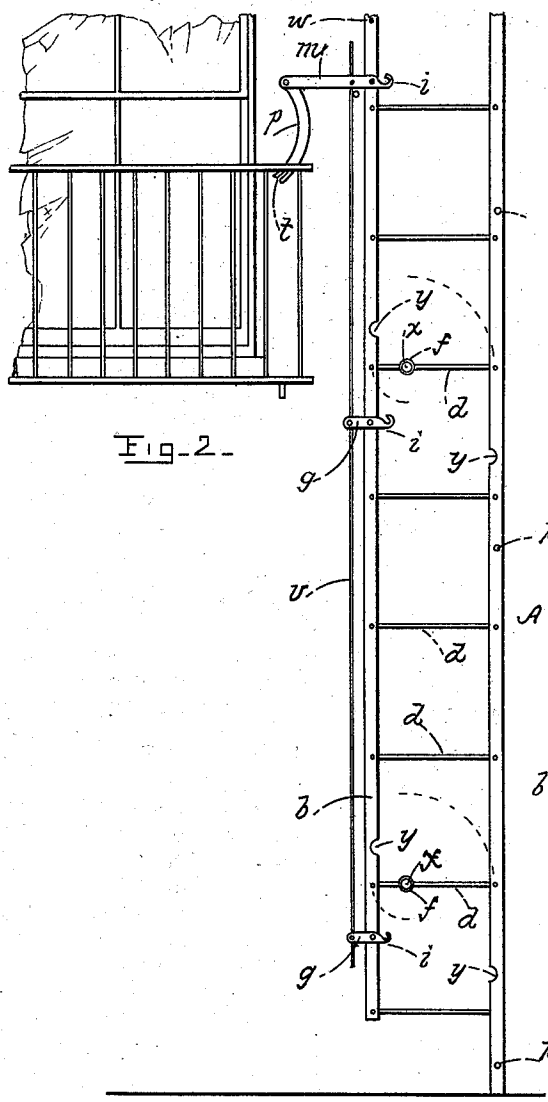

Fig. 2.

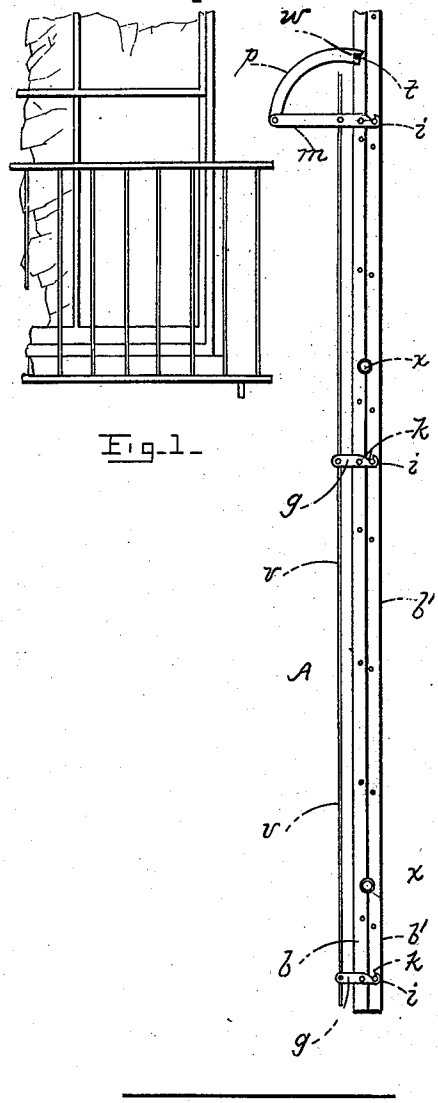

Fig. 1.

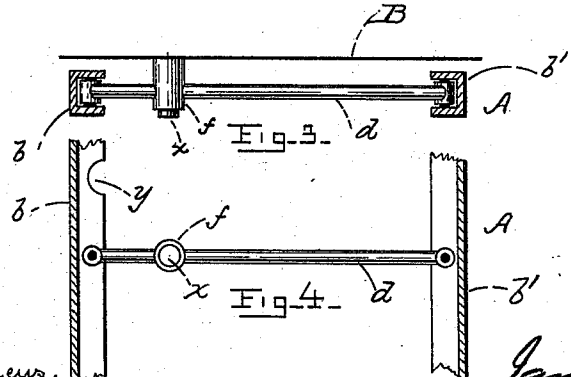

Fig. 3.

Fig. 4.

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JAMES FLYNN, OF BOSTON, MASSACHUSETTS.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 400,656, dated April 2, 1889.

Application filed December 26, 1888. Serial No. 294,631. (No model.)

To all whom it may concern:

Be it known that I, JAMES FLYNN, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Fire-Escapes, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation showing my improved fire-escape ladder closed and locked; Fig. 2, a like view representing the same opened and in position for use, and Figs. 3 and 4 sectional views illustrating certain details of construction.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to that class of fire-escapes in which ladders secured to the wall of the building are employed; and it consists in certain novel features, as hereinafter fully set forth and claimed, the object being to produce a simpler, cheaper, and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the ladder considered as a whole, and B the wall of the building.

The ladder A consists of side pieces, *b b'*, composed of channel-iron, the rungs *d* being pivoted at each end between the walls of said irons.

At suitable points on the ladder a rung, *d*, is provided with a sleeve, *f*, which is adapted to receive and revolve on a stud, *x*, secured to the wall B of the building, said sleeves being disposed at one side of the center of the rungs, as shown in Fig. 1. The ladder is disposed on the building so that the side iron, *b*, shall be adjacent to the windows thereof, and at intervals on said iron is pivoted a lever, *g*, provided on its inner end with a hook, *i*, adapted to receive a pin, *k*, on the side iron, *b'*, when the ladder is folded, as hereinafter described. A similar lever, *m*, is pivoted to the side iron, *b*, in position to be conveniently reached from the windows of the building, said lever being longer than the levers *g*.

A vertically-arranged rod, *v*, is pivoted to the outer end of each lever *g* and to the long levers *m*, the purpose of said rod being to move said levers and free the side irons, *b'*, from their hooks *i*.

A curved bar, *p*, is pivoted by one end to the outer end of each lever *m*, the free end of said bar being slotted at *t* to receive a pin, *w*, on the iron *b*, whereby said rod is prevented from being accidentally moved and opening the ladder. The ladder is so constructed that when open, as shown in Fig. 1, the lower end of the side iron, *b'*, rests upon the ground, and the corresponding end of the iron *b* is elevated slightly therefrom.

In the use of my improvement, the ladder being open, as shown in Fig. 2, to close it the side iron, *b'*, is elevated. This causes the pivoted rungs to turn on the studs *x* and in the side irons, the pivots in said irons moving in the direction represented by dotted lines in Fig. 2. When the side irons have been brought together, (see Fig. 1,) the hooks *i* of the levers *g m* will receive the pins *k* on the iron *b'*, thereby securing the parts in position. Grooves *y* are formed on the inner edges of the side irons to receive the sleeves *f* on the rungs when the ladder is folded. The bar *p* on the lever *m* is turned upward until its slot *t* incloses the pin *w* on the rod *v*, acting as a stop to prevent said rod from being moved. To open or unfold the ladder, the iron *b* is released from the bar *p* and drawn upward sufficiently to force the pins on the side iron, *b'*, from the hooks of the levers, when the weight of the side iron will cause it to fall and open the ladder, a greater weight being on that side of the pivotal points or studs *x* than on the side occupied by the iron *b*.

Having thus explained my invention, what I claim is—

1. In a fire-escape, the combination of a ladder comprising channeled side bars and rungs pivoted therein, levers pivoted to one

side bar and provided with hooks for receiving pins on the opposite side bar when the ladder is closed, a vertical rod pivoted to said levers for releasing them from said pins, and a slotted bar pivoted to one of said levers and adapted to receive a pin on a side bar, whereby said rod may be locked, substantially as described.

2. In a fire-escape, a ladder provided with channeled side bars having rungs pivoted therein, sleeves secured to certain rungs at one side of the center thereof for receiving studs in the wall of the building, hooked levers pivoted to a side bar for receiving pins on the opposite bar, a vertical rod pivoted to said levers, and a curved bar pivoted to one of said levers, said bar being provided with a slot for receiving a pin on a side bar, all being arranged to operate substantially as set forth.

3. In a fire-escape, the combination of the ladder A, comprising channeled side irons, *b* *b'*, and rungs *d*, pivoted therein, the sleeves *f* on said rungs for pivoting the ladder to a building, the levers *g* *m*, pivoted to the side iron, *b*, and provided with hooks *i*, the pins *k* on the side iron, *b'*, the rod *v*, pivoted to said levers, and the curved bar *p*, pivoted to the lever *m* and provided with the slot *t*, for engaging a pin, *w*, and locking said bar, substantially as described.

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Witnesses:
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