

(No Model.)

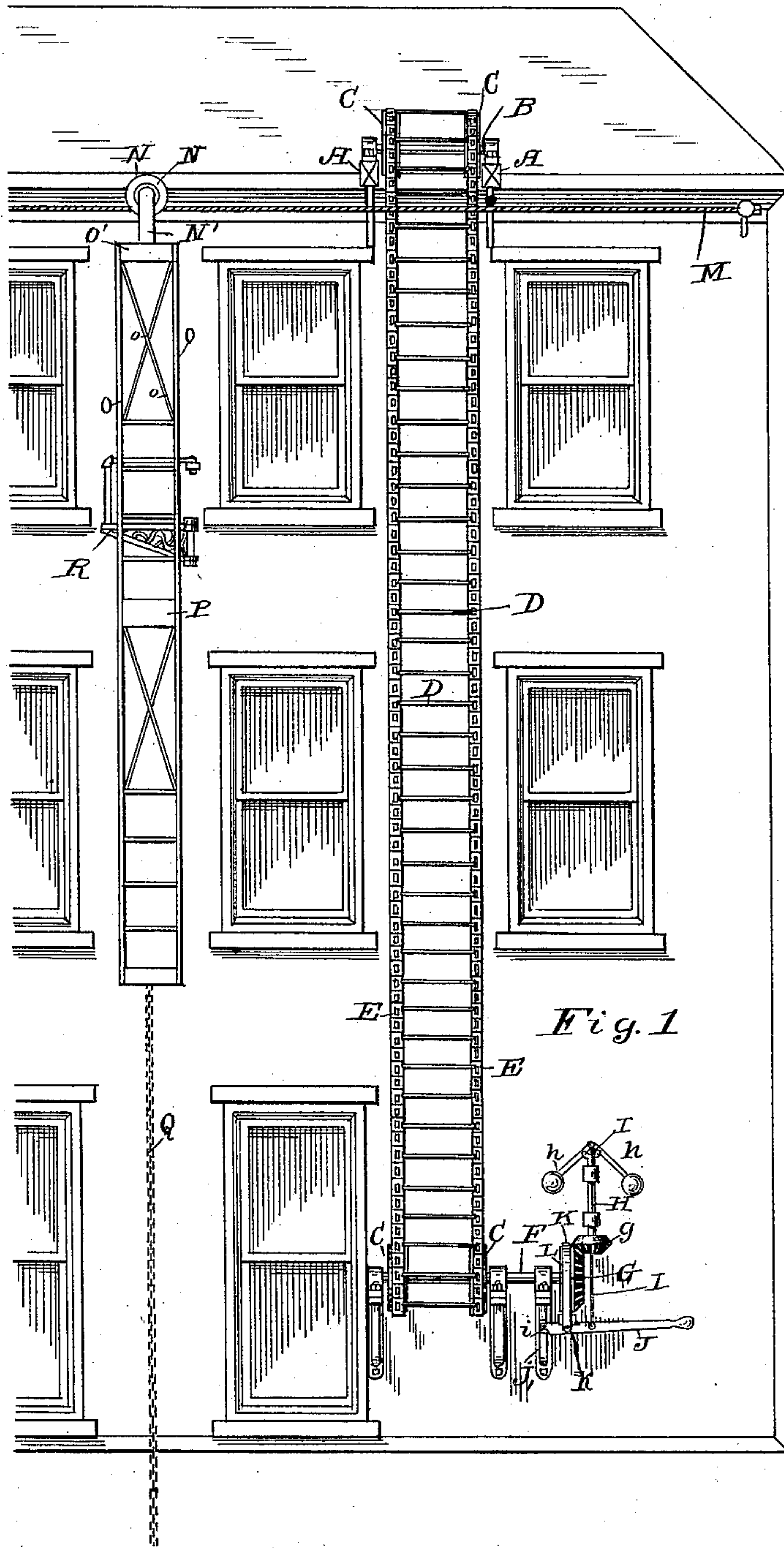
2 Sheets—Sheet 1.

L. BLESSING.

FIRE ESCAPE.

No. 299,511.

Patented June 3, 1884.



Witnesses:

J. Curtis Turner
J. S. Barker

Inventor:

Louis Blessing
by S. M. S. & B. S.
attys

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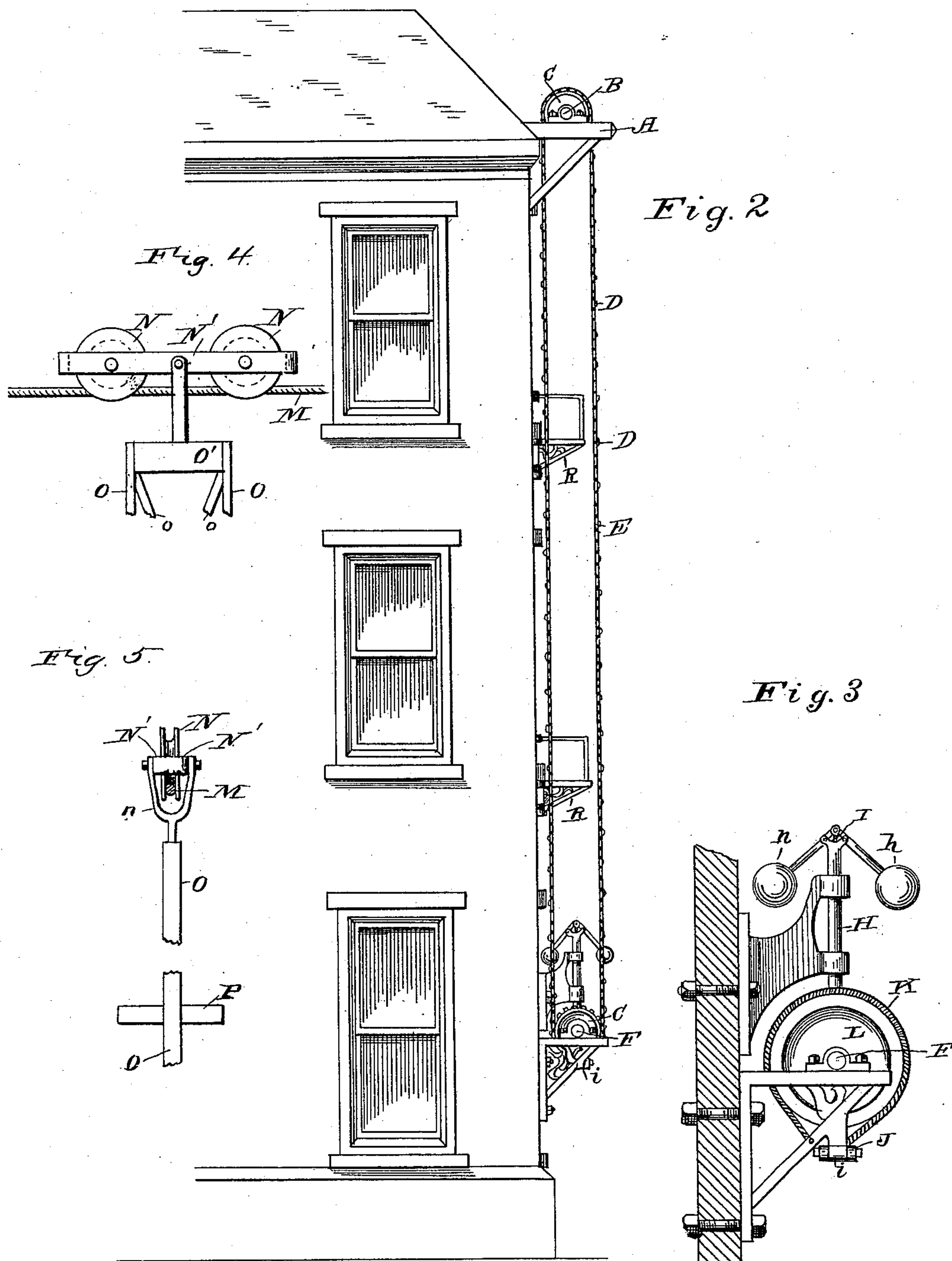
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FIRE ESCAPE.

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Inventor:

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UNITED STATES PATENT OFFICE.

LOUIS BLESSING, OF JACKSON, MICHIGAN.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 299,511, dated June 3, 1884.

Application filed June 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, LOUIS BLESSING, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a side elevation of a building having my fire-escape applied thereto. Fig. 2 is an end elevation of the same. Fig. 3 is a detached view, enlarged, of the brake mechanism. Figs. 4 and 5 are detached views of a modification.

A A represent two beams projecting through the walls at a suitable elevation from the ground.

B is a shaft mounted thereon on a line parallel with the wall of the building.

C C are sprocket-wheels keyed to shaft B.

F is a shaft near the ground mounted upon suitable brackets projecting from the building, or upon other supports, and C' C' are sprocket-wheels keyed to shaft F.

D D are the rounds, and E E the belts of an endless ladder which traverses the sprocket-wheels.

G is a bevel-gear mounted upon one end of shaft F, and meshing with a bevel-pinion, g, which is attached to the lower ends of the tubular shaft H of an ordinary governor, of which h h are the arms carrying at their lower ends balls or weights. These arms are pivotally connected to the upper end of the tubular shaft H, and are attached at their inner ends to a thrust-rod, I, which is arranged within the tubular shaft H; but as I propose to use any of the well-known forms of governor which are adapted for the purpose, and have a vertically-reciprocating central rod substantially like the one marked I in the drawings, no further description of the governor will be necessary for an understanding of the working of my invention.

J is a brake-lever, pivoted at its inner end at i to a bracket, J', projecting from the wall of the building or to other suitable support.

K is a brake-strap encircling the wheel L on shaft H, one end of the strap being stationarily attached to the bracket or other sup-

port, the other free end of the strap being attached to the lever at k.

By an examination of the drawings, particularly Figs. 2 and 3, it will be readily understood that the movements of the endless ladder will be regulated automatically by the governor unless too great weight be placed upon the descending side of the chain, in which case the desired increase of pressure of the strap K upon the brake-wheel L can be produced by means of the lever J.

M is a rope or supporting-bar arranged on a line substantially parallel with the shaft B, and at suitable distances from the plane of the wall of the building.

In Figs. 4 and 5 I have shown one form of a device adapted to run on the rope or bar M. In these figures N N are grooved pulleys traversing the upper surface of the rope or bar M, and connected by means of a hanger, which consists, essentially, of two parallel bars, N' N', in the ends of which the grooved wheels are journaled, and a stirrup, n, the legs of which straddle the rope or bar M.

O O O' o o represent, respectively, the vertical rods, ropes, or bars, a horizontal tie-bar at their upper ends, and intermediate bracing bars or ties of a hook or carrier which is suspended from the grooved wheels N N and carrier. Under ordinary circumstances, however, the construction shown in Fig. 1 will be the preferable one on account of its simplicity and cheapness, there being but one grooved pulley; with a stirrup connecting the axle of the pulley with the horizontal tie-bar at the upper ends, O', of the device, which I will now proceed to describe.

P represents a series of supports attached at suitable intervals to the rods or ropes O O. They should be, by preference, placed on a line with or a little below the window-sills, in order that a person escaping from the windows can readily step onto the supports P P.

Q is a chain depending from the car and reaching to the ground, whereby persons standing upon the ground can cause the carrier to traverse the rope or bar M, and thus convey persons from the windows to the endless ladder.

R represents bracket platforms or rests,

which are pivoted to the face of the wall between the windows in such positions that in case the persons are driven from their rooms by fire they can support themselves 5 upon these rests until they can be taken off by the carrier and moved to the endless ladder. By reason of these rests being pivotally attached to the walls they can be swung back flat against the walls out of the path traversed 10 by the carrier when they are not occupied.

I am aware that a governor has heretofore been used for regulating the movement of a rope or ladder in a fire-escape; but in the construction referred to the governor was placed 15 inside of the building in connection with the shaft upon which the drum was mounted near the top of the building, and was necessarily applied to that shaft in order that it might be made to control the movement of a rope wound 20 on a drum carried by said shaft, whereas my construction possesses marked advantages

over the former one, because connecting the governor to the lower shaft, F, enables an attendant while standing upon the ground to apply to the brake-wheel additional friction 25 over and above that which is produced by the governor, thereby placing the apparatus more effectually within control of the operator.

What I claim is—

1. The combination, with the endless ladder, of the carrier arranged to travel toward 30 and from the ladder, substantially as set forth.

2. The combination, with the endless ladder and the carrier, of the swinging rests, 35 substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

LOUIS BLESSING.

Witnesses:

H. F. KNAPP,

GEO. S. BENNETT.