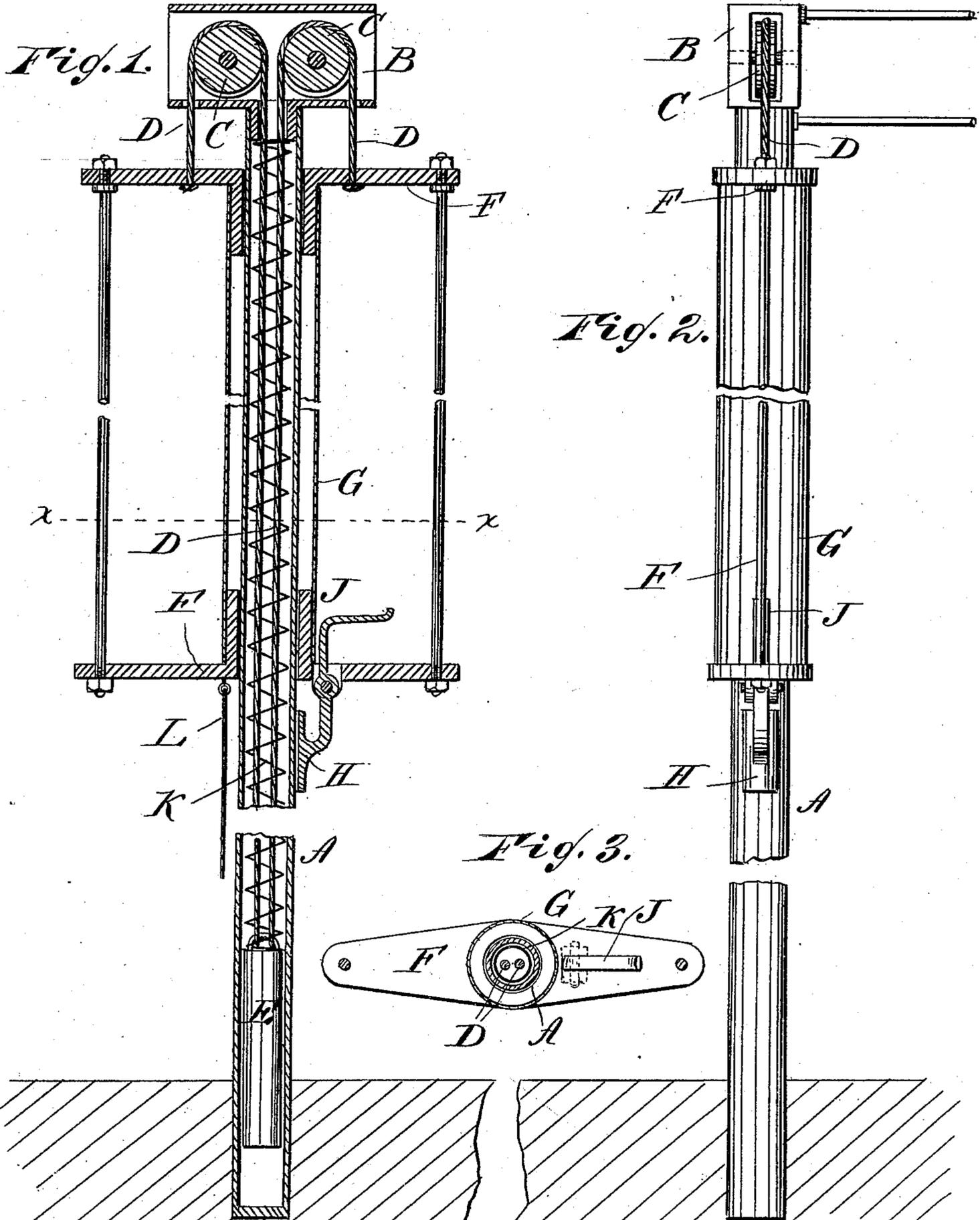


(No Model.)

A. PALMER,
FIRE ESCAPE.

No. 290,917.

Patented Dec. 25, 1883.



WITNESSES:

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UNITED STATES PATENT OFFICE.

AARON PALMER, OF ROCHESTER, NEW YORK.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 290,917, dated December 25, 1883.

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

To all whom it may concern:

Be it known that I, AARON PALMER, of Rochester, in the county of Monroe and State of New York, have invented a new and Improved Fire-Escape, of which the following is a full, clear, and exact description.

This invention relates to that class of fire-escapes in which a cage or frame is adapted to slide down a standard.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of my improved fire-escape. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional plan view of the same.

A tube or pipe, A, preferably made of wrought-iron, is held vertically at the side of the wall of the building, and is suitably braced and stiffened, and to its upper end a box, B, is fastened, in which two grooved pulleys, C, are journaled, over which ropes, cables, or chains D pass, which have one end secured to a weight, E, contained in the tube and adapted to move up and down in the same. The other ends of the ropes or cables are fastened to the top of a box, cage, or frame, F, surrounding the tube A, and adapted to slide vertically on the same. The cage or frame F is provided with a casing, G, surrounding the tube A, which casing a person can embrace while descending, or the casing can be provided with a hand-rail or analogous device. A brake-shoe, H, is attached to a lever, J, pivoted in the bottom of the cage or frame, which lever has its upper end bent about rectangularly. By pressing the upper end of the lever J down by means of the foot the brake-shoe will be pressed against the tube A, and the speed of the cage or frame can be checked. A long spiral spring, K, through which the ropes or cables pass, is contained in the tube A, and between the weight E and the upper end of the tube. A rope or chain, L, is attached to the bottom of the cage or frame for pulling it down. The weight E must be so

heavy that it will quickly elevate the vacated frame or cage F. The bottom of the cage or frame F can be made square or circular, as may be desired. The weight E always holds the cage or frame F at the top of the tube A, the weight being at the bottom of the tube. If a person steps in the cage or frame F, it will descend, and by pressing on the lever J the speed can be checked. The spring K prevents a shock when the frame or cage arrives at the bottom of the tube. As soon as the person or persons leave the cage the weight E, assisted by the spring K, draws the cage to the top of the tube again. If a person wishes to enter the cage some distance below the top of the tube, the cage can be drawn down by means of the rope or chain L.

The fire-escape is always ready for use and can easily be used successively by a number of persons.

In place of one tube, two may be used in a similar manner, and to prevent the down-haul rope L being blown out of reach by the wind, I shall in practice reeve it through a pulley-block suitably fixed to the base of the tube A, as will be readily understood.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a fire-escape, the combination, with the vertical tube A, of the frame F, adapted to slide vertically on the same, the ropes or cables D, the pulleys C, the counterbalancing-weight E within the tube, and the spiral spring K, between the weight E and the top of the tube, substantially as herein shown and described, and for the purpose set forth.

2. In a fire-escape, the combination, with the tube A, of the frame or cage F, the ropes or cables D, the pulleys C, the counterbalancing-weight E, and the casing G, secured to the frame F and surrounding the tube A, substantially as herein shown and described, and for the purpose set forth.

AARON PALMER.

Witnesses:

WM. PARKER,
FRANK G. HOLLY.