No. 784,864. PATENTED MAR. 14, 1905.

D. E. LANDIS.

PORTABLE FIRE ESCAPE.

APPLICATION FILED APR. 13, 1904.

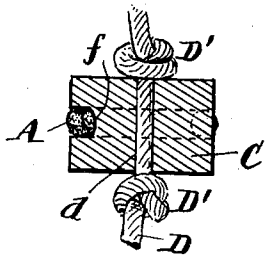



FIG. 3

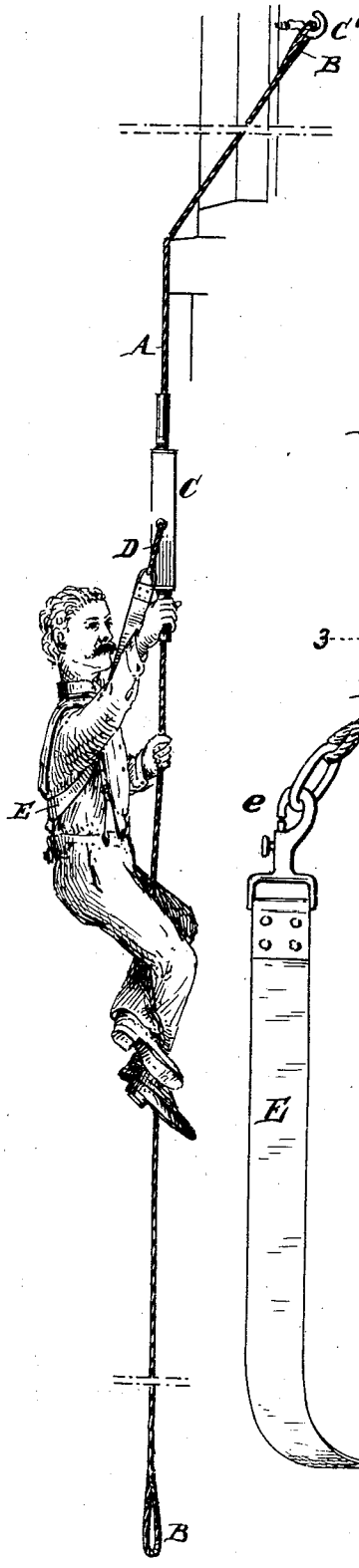



FIG. 1

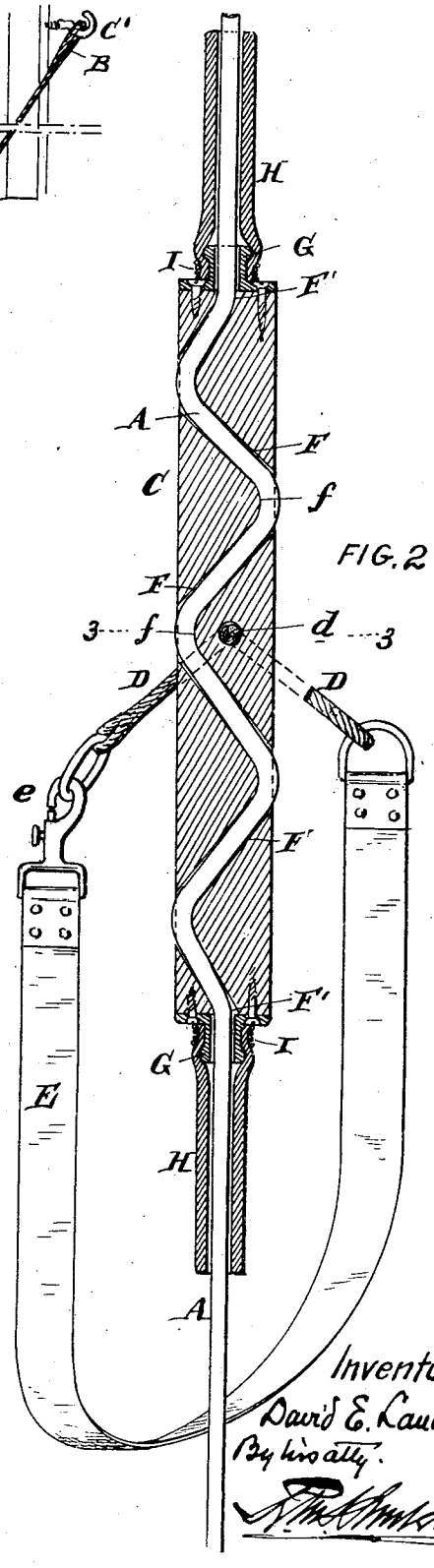



FIG. 2

Attest
R. M. Kelly.
Wm. Bonney

Inventor
David E. Landis
By his atty.

No. 784,864. Patented March 14, 1905.

# UNITED STATES PATENT OFFICE.

DAVID E. LANDIS, OF ROCKGLEN, PENNSYLVANIA.

## PORTABLE FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 784,864, dated March 14, 1905.

Application filed April 13, 1904. Serial No. 202,966.

*To all whom it may concern:*

Be it known that I, DAVID E. LANDIS, of Rockglen, county of Luzerne, and State of Pennsylvania, have invented an Improvement in Portable Fire-Escapes, of which the following is a specification.

My invention has reference to portable fire-escapes; and it consists of certain improvements fully set forth in the following specification and shown in the accompanying drawings, which form a part thereof.

The object of my invention is to provide a simple, cheap, and effective construction of portable fire-escapes adapted for general use in homes and hotels.

In construction my invention consists in a wooden block having a series of oppositely-directed holes through which the rope travels in a zigzag course to create considerable friction when tension is put upon the rope and provided at one or both ends with a friction-brake consisting of a flexible inclosing hand-piece for the rope and a suitable suspension strap or support for the person.

My invention also comprehends details of construction, which, together with the above-described features, will be better understood by reference to the drawings, in which—

Figure 1 is an elevation of a fire-escape embodying my invention and showing same in use. Fig. 2 is a vertical sectional elevation of the essential mechanism of my improved fire-escape, and Fig. 3 is a cross-section of same on line 3 3 of Fig. 2.

A is the rope and is preferably provided at each end with a loop B, so that either end may be adapted to hook upon the hook C′ within the window-frame.

C is a sliding block of wood and is provided with a series of oppositely-directed oblique holes F F, which open in pairs at opposite sides of the block and form rounded portions *f*, over which the rope is bent and by which the friction is created upon said rope. The upper and lower oblique holes F′ open through the ends of the block, as shown. Upon the ends of the block are secured metal plates G, having projecting tubular portions, and to these are secured the brake-sleeves H, of rubber or other flexible material, said sleeves fitting over the projections of the plates G and held thereon by wire wrapping I. The rope A passes through the holes F and F′ of the block in a zigzag course and then through the brake-sleeves H H, as clearly shown in Fig. 2. It will now be evident that if the block C is pulled downward and the lower brake-sleeve H is compressed by the hand the rope A will be more or less tightly held, and the tension thus created will put more friction upon the rope in passing through the block.

The person is suspended from the block by the use of a strap E, connected with the central portion of the block by a rope D, which passes through a transverse hole *d* and held in place by knots *d′*, formed in the rope itself on each side of the block, as shown in Fig. 3. One end of this rope D is secured permanently to the strap E, and the other end is detachably connected by use of a snap or covert hook *e*.

When a person is suspended by the strap E, as shown in Fig. 1, his weight comes upon the block, causing it to slide down the rope A.

By grasping the lower brake-sleeve the person may create such friction as he may require to retard his descent to that required. This sleeve also gives him something to hold to and steady himself.

The fire-escape is reversible, as will be understood by examining Fig. 1. When the sliding block C has reached the bottom, the rope is pulled up and reversed. The next person may then descend, and so on. The brake-sleeve H at each end enables the downward speed to be controlled to a nicety, and by connecting the rope D of the suspension-strap E to the center of the block C the weight is at all times applied upon the rope and block in the same way. While I prefer to make the fire-escape reversible, it is not necessary, and consequently I do not confine myself to this feature.

While I prefer the construction shown as being excellently adapted to the embodiment of my invention, I do not confine myself to the details, as they may be modified in various ways without departing from the spirit of my invention.

Having now described my invention, what

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

1. A reversible fire-escape consisting of a rope, combined with a sliding block having openings for the rope in its top and bottom ends and a series of connecting zigzag tubular passages for the rope between the ends, soft tubular handpieces secured to each end of the block and surrounding the rope-openings therein and through which the rope passes, and a suspension device connected with the sliding block at a point intermediate of the two soft tubular handpieces.

2. In a fire-escape, the combination of a rope, a sliding block having an irregular-shaped guide-aperture for the rope, a suspension device connected with the sliding block, a brake-sleeve connected at one end of the block and through which the rope passes consisting of a metallic plate secured to the bottom end of the sliding block, and a tubular piece of rubber surrounding the rope and fastened to and depending from the metallic plate so as to extend downward below the sliding block in use.

3. A reversible fire-escape consisting of a rope, combined with a sliding block having openings for the rope in its top and bottom ends and a series of connecting zigzag tubular passages for the ropes between the ends, tubular metal plates G secured to the sliding block at each end and surrounding the rope-openings therein and through which the rope passes, soft tubular handpieces H fitted over and secured to each of the metal plates G and extending away from each other and from the block.

In testimony of which invention I hereunto set my hand.

DAVID E. LANDIS.

Witnesses:
ARTHUR S. HINE,
E. R. DRUM.