

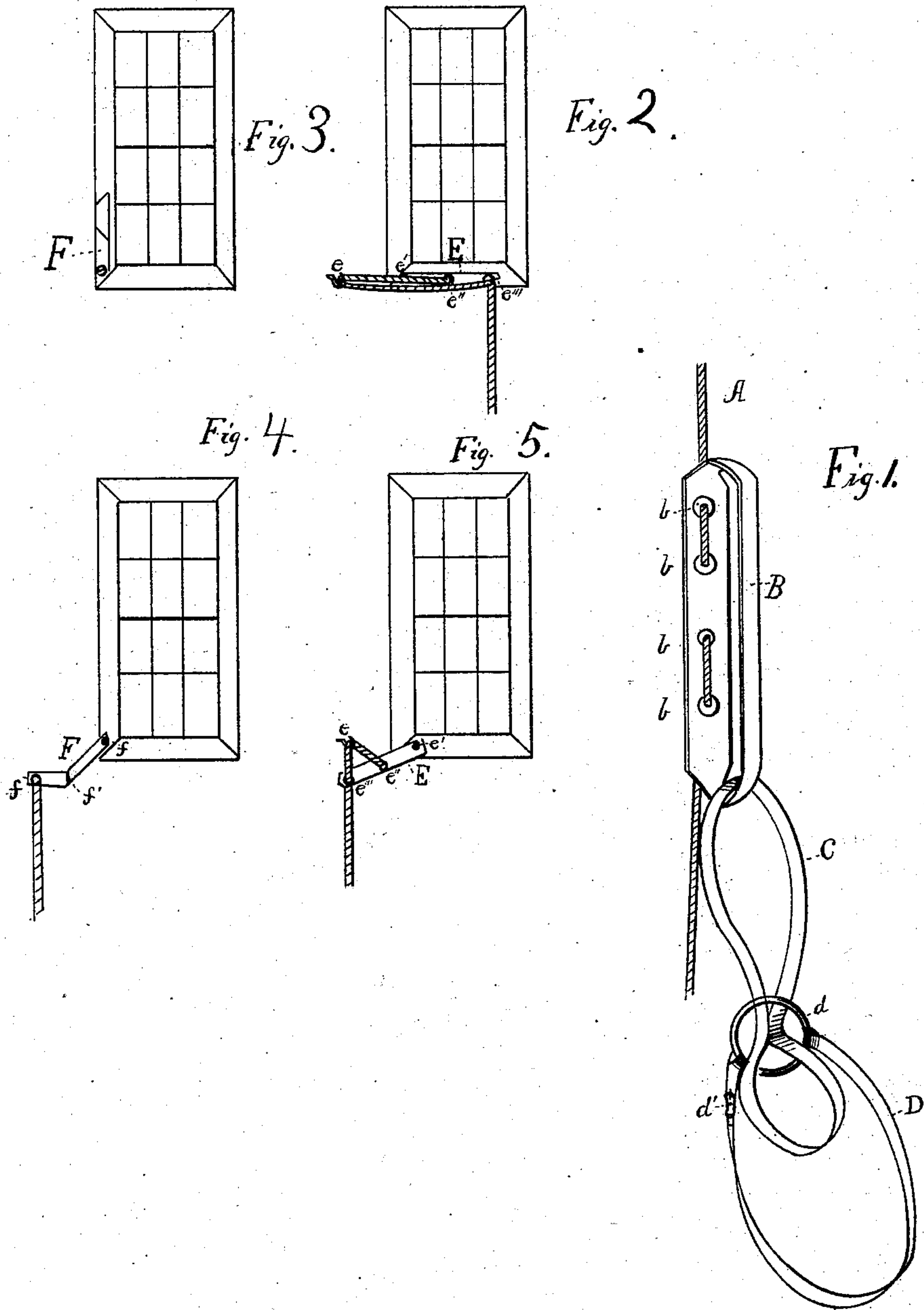
(No Model.)

F. J. UNDERWOOD.

FIRE ESCAPE.

No. 292,769.

Patented Jan. 29, 1884.



Witnesses
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UNITED STATES PATENT OFFICE.

FLAVIUS J. UNDERWOOD, OF NORTH SPRINGFIELD, MISSOURI.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 292,769, dated January 29, 1884.

Application filed May 21, 1883. (No model.)

To all whom it may concern:

Be it known that I, FLAVIUS J. UNDERWOOD, a citizen of the United States, residing at North Springfield, in the county of Greene and State of Missouri, have invented certain new and useful Improvements in Fire-Escapes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in fire-escapes. The object is to provide an easy, convenient, safe, and at the same time rapid means of descending from a burning building. I attain these objects by means of the device illustrated in the accompanying drawings, in which—

Figure 1 is a view of the entire device except the attachment. Figs. 2 and 3 show the attachment. Figs. 4 and 5 show the attaching-arm when open.

The device consists of an arm, E or F, to which is attached a rope or wire, A. Upon this rope is placed a slide or tension, B, made of wood, iron, or other suitable material, having the holes *b*, which may be of any number to produce the desired tension by friction to regulate the speed in descent, but best with but four, as shown, and made a little slanting the way the rope works through. On this tension is attached a piece, B, best made a part of the tension, as shown, leaving a space between it and the tension, (for the purpose hereinafter explained,) together with a harness, C D.

E is an arm of iron attached at *e'* to the window-sill, and having the holes or rings *e''* *e'''*, and a hook in the wall *e*, through which the rope passes, and thus the weight of itself swings between the windows to descend. When it is not convenient to attach the arm at *e'*, the arm is made with an elbow-joint, as shown in Figs. 3 and 4, in which case it is attached to the casing of the window at *f*, and the weight on the rope opens the elbow-joint *f'*, and thus swings the descending object between the windows.

C is an endless loop or band, made of leather, cloth, or other suitable material, and of sufficient size to be placed around the largest person. It is attached to the slide around

the piece B, thus permitting it to freely pass from end to end when the slide is reversed. Over this endless loop is slipped a ring, *d*, to which is attached an adjustable loop, D, made of similar material to C, and adjusted by a buckle, *d'*, or other suitable device.

I operate my invention as follows: The device, as shown in Fig. 1, is placed in a room or place desired for use. One end of the rope A is then attached to a substantial place or to the arm, as described, in case of fire bursting out from the lower windows. The endless loop C is then placed around the body just under the arms, while the ring *d* is brought to the chest, the adjustable loop D drops lower to serve as a seat, and, if a child or other object is to be sent down, the loop D is adjusted by means of the buckle *d'*, so that the weight in loop D tightens the hold in loop C by drawing up ring *d*, thus enabling children, babes, valuable furniture, &c., as well as grown persons, to reach the ground quickly and safely by means of this device. On reaching the ground the ring *d* drops back and the whole harness will drop off. If more than one person or object is to be lowered, (as is generally the case,) the person above draws up the rope and attaches the free end and frees the one attached, and it is then ready for another descent; and this may be repeated any number of times until all have gone down. The piece B of the tension is necessary to the self-reversal of the harness, to obviate the necessity of pulling the rope back through the tension, which otherwise would be necessary, as the tension will not work except with the weight at the lower end.

The tension or "tent-slide" is old; but

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

1. In a fire-escape, an adjustable self-tightening harness, C D, substantially as and for the purpose set forth.

2. In a fire-escape, the combination of a tension with holes *b* upon a rope, A, having the piece B, and an adjustable self-tightening harness, C D, all substantially as shown and described.

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

FLAVIUS J. UNDERWOOD.

Witnesses:

JAS. R. MILNER,

JAS. ANTHONY.