

(No Model.)

W. NEWLAND.

FIRE ESCAPE.

No. 280,070.

Patented June 26, 1883.

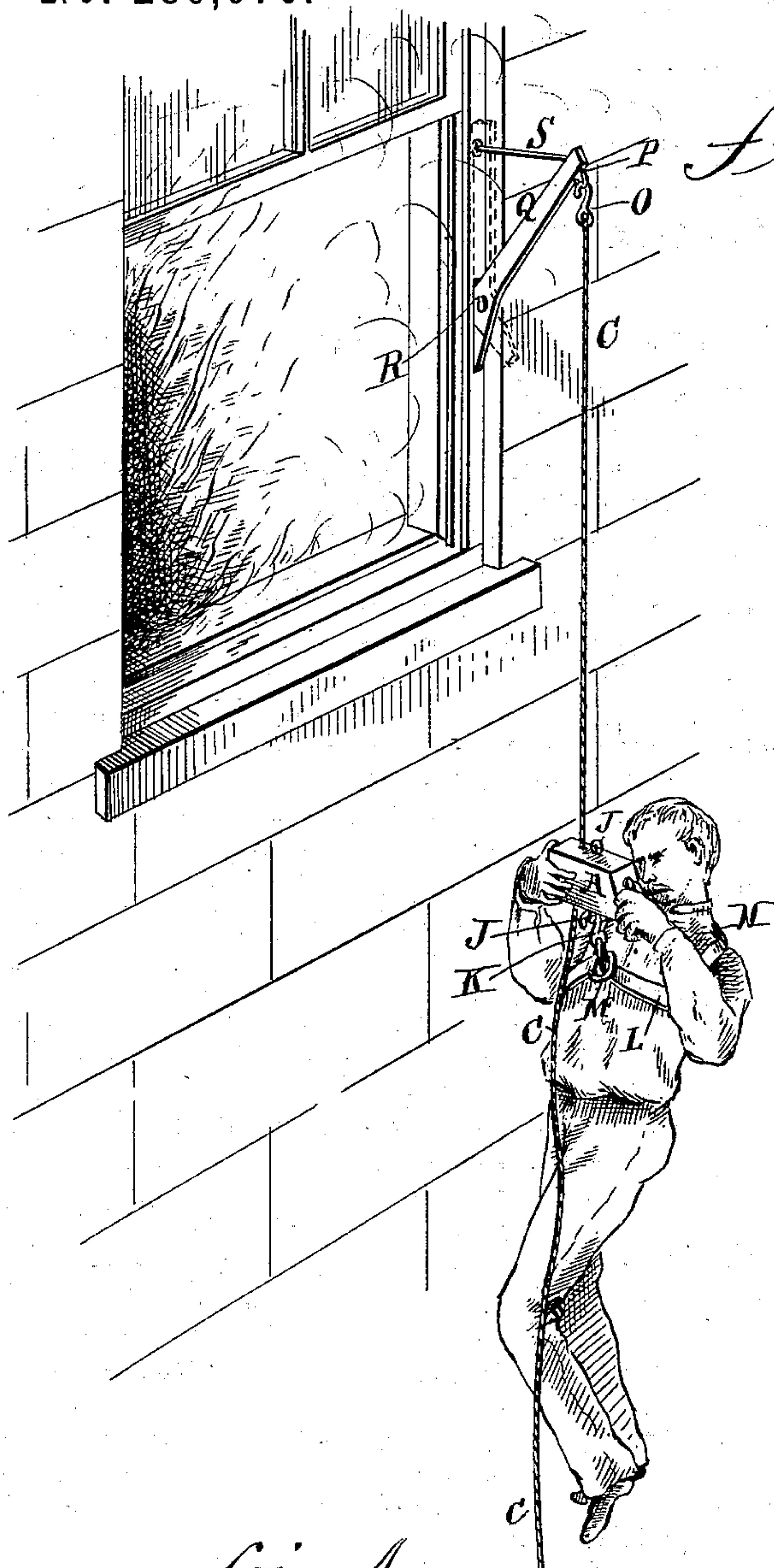


fig 1

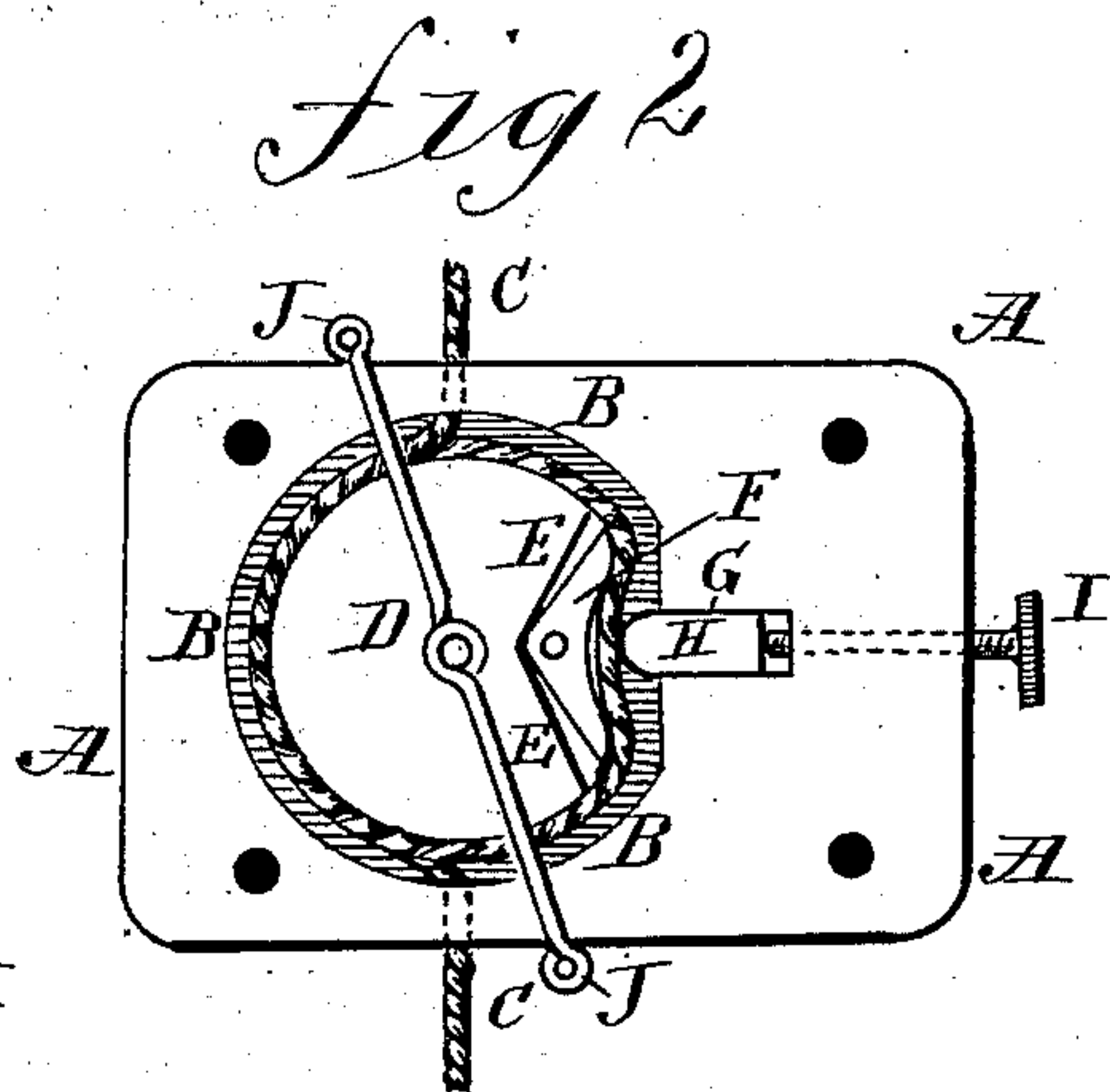


fig 2

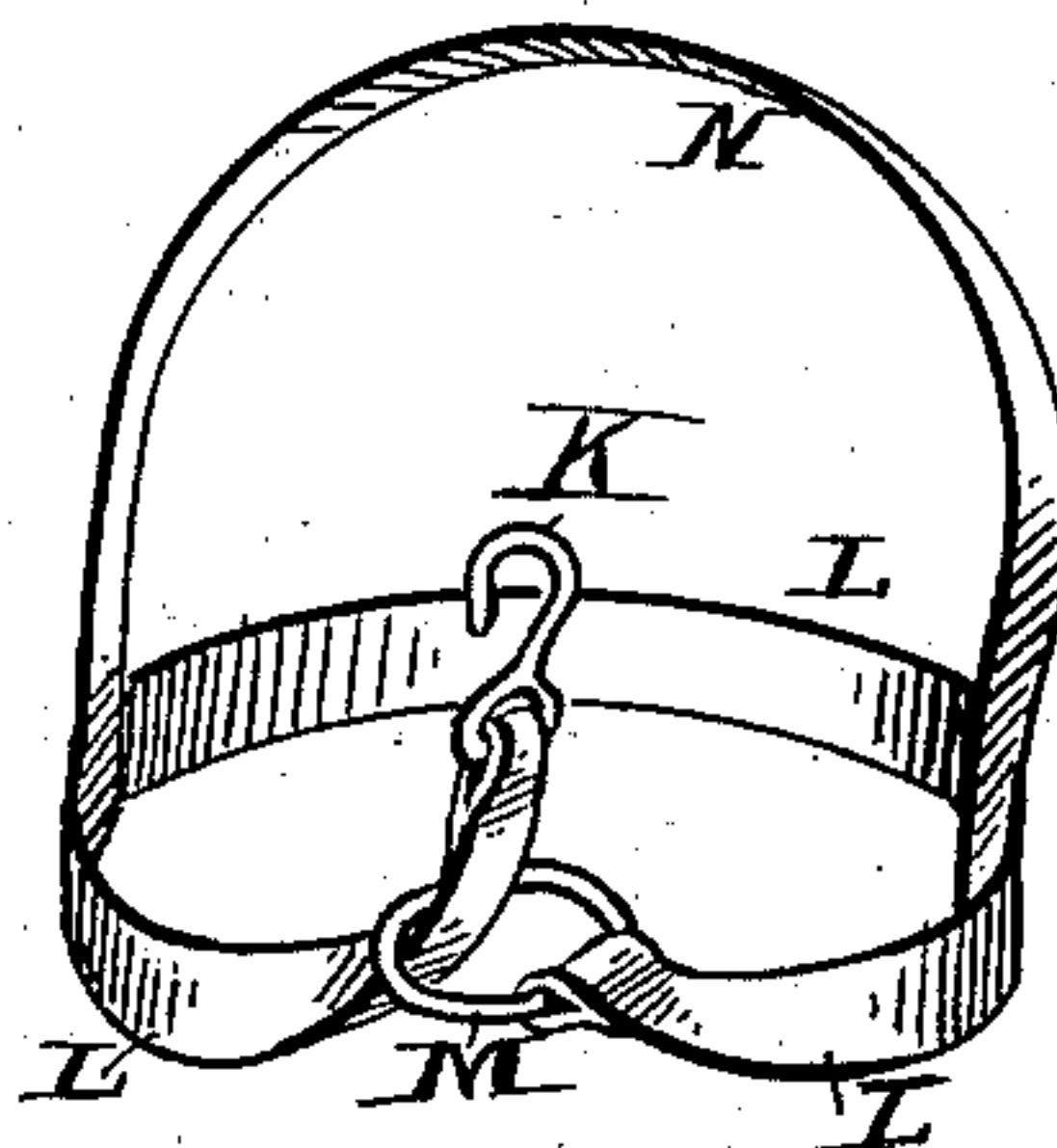
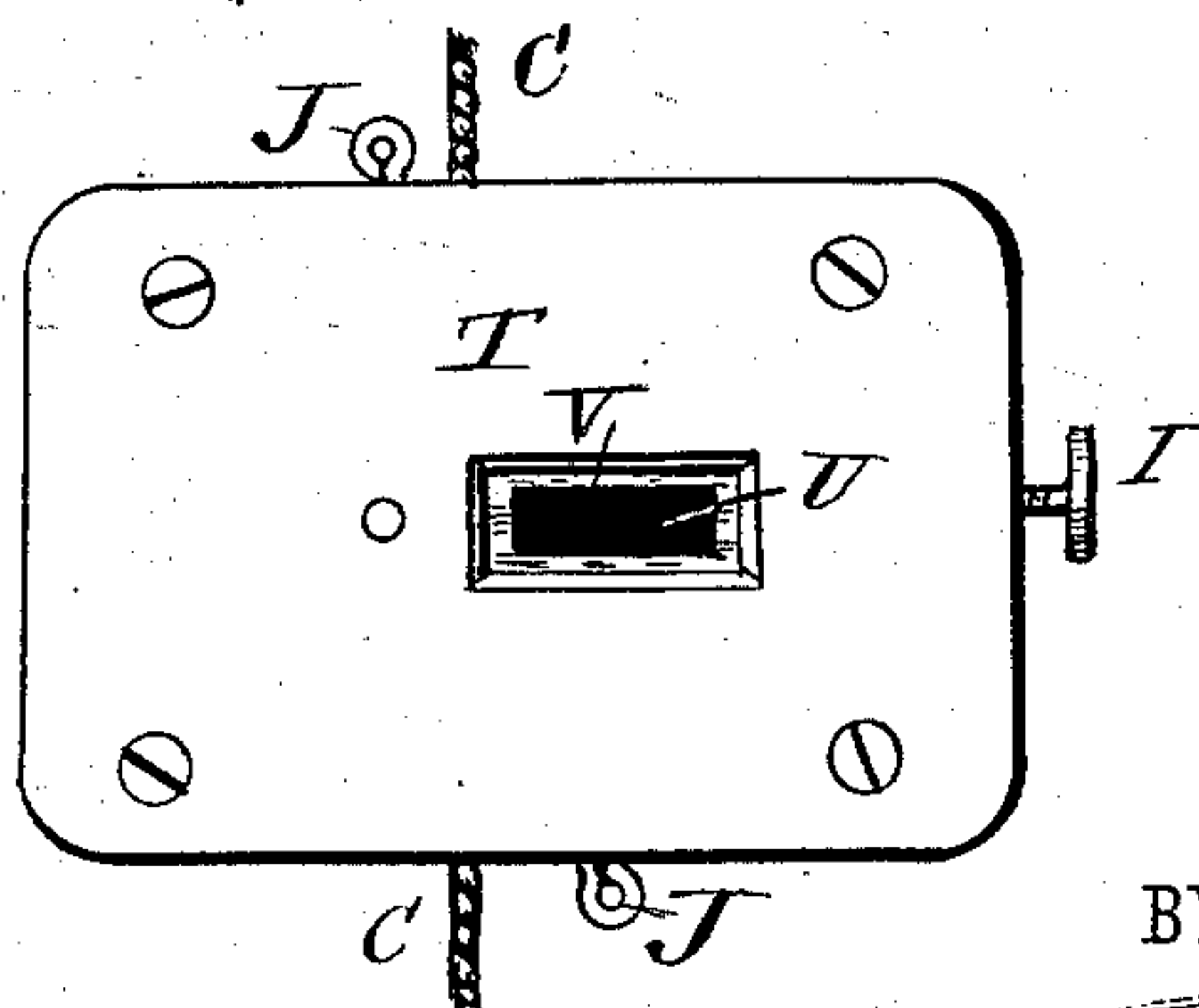


fig 3

fig 4



WITNESSES:

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 280,070, dated June 26, 1883.

Application filed February 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM NEWLAND, of Brooklyn, Kings county, and State of New York, have invented a new and useful Improvement in Fire-Escapes, of which the following is a full, clear, and exact description.

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

Figure 1 is a perspective view of my improvement, illustrating its use. Fig. 2 is a plan view of the sliding block, the face-plate being removed. Fig. 3 is a perspective view of the waist-strap. Fig. 4 is a plan view of the face-plate.

The object of this invention is to facilitate the escape of persons from burning buildings when the ordinary passages are obstructed.

The invention consists in a fire-escape constructed with a rope, a sliding block placed upon the rope, and having a friction-core recessed upon one side and provided with a brake-block and hand-screw, and a waistband suspended from the said friction-block, whereby a person can readily descend the said rope by his own weight. Within the recess in the core of the sliding block is pivoted a block made angular upon the inner side and concaved upon the outer side, to increase the friction upon the rope as it passes around the core and the end of the brake-block. To the window-frame is hinged a bar having its inner end beveled, and provided at its outer end with an eye to receive the hook of the rope, and which is supported by a brace-chain, whereby the said rope will be supported at a suitable distance from the wall of the building, as will be hereinafter fully described.

A represents a block of wood, metal, or other suitable material, having an annular groove, B, of such a size as to receive a coil of the rope C to be used, and which passes into and out of the groove B through apertures in the edges of the said block A.

In the side of the core D, formed by the groove B, toward one end of the block A, is formed an angular recess, E, within which is placed the angular side of a small block, F. The angle of the block F is less than the angle of the recess E, so that the said block F will

rock within the said recess. The block F is pivoted near its angle to the block A, and has its outer side concaved, as shown in Fig. 2.

In a recess in the end of the block A, directly opposite the recess in the rocking block F, is formed a recess, G, to receive a block, H, the inner end of which is rounded and rests against the coil of the rope C, passing around the core D and rocking block F. Against the outer end of the block H rests the end of a hand-screw, I, which works in a screw-hole in the end of the block A. With this construction the rope C will be forced by the hand-screw I more or less into the recess in the rocking block F, so as to receive more or less friction as the block A slides upon it. With this construction, also, as the block A slides in either direction upon the rope C, one end of the rocking block F will be drawn inward and the other end will be forced outward to cause the rope C to pass beneath the end of the brake-block H at a sharper angle, and thus with more friction.

To the opposite edges of the block A are attached eyes J to receive a hook, K, attached to one end of the waistband L, which end is passed through a ring, M, attached to the other end of the said waistband L. The waistband L is provided with a strap, N, to pass over the shoulder of the wearer, and thus support the waistband in place when not attached to the block A.

To each end of the rope C is attached a hook, O, to be hooked into an eyebolt, P, attached to the outer end of a hinged bar, Q, or to some other suitable support. The inner end of the bar Q is hinged to the window-frame by a bolt, R, and is beveled so as to rest against the window-casing when the said bar Q is swung outward, as shown in full lines in Fig. 1. The draft strain upon the bar Q, when in use, is sustained by a short rope or chain or pivoted rod, S, attached at one end to the window-casing and at the other end to the outer end of the hinged bar Q. When not in use, the bar Q is swung up against the window-casing, as shown in dotted lines in Fig. 1. With this construction the rope C will be supported at a suitable distance from the wall of the building to allow the person descending to readily pass cornices and other obstructions.

In using the escape the bar Q is swung outward and a hook, O, of the rope C is hooked into the eye of the eyebolt P, the block A being at the upper end of the said rope. The
5 person about to descend passes the band L around his waist and hooks the hook K into the eye J at the lower edge of the block. He then sees that the brake-block H is bearing properly against the rope C and swings from
10 the window, when his weight will cause the block A to slide slowly down the rope C. The person descending grasps the hand-screw I with one hand, so that he can increase or decrease the friction, and thus control the rapid-
15 ity of descent.

To the block A is bolted a face-plate, T, in an aperture, U, in which, directly opposite the brake-block H, is secured a glass plate, V, so that the person using the escape can readily
20 see if the said brake-block is in proper position. The face-plate T can also be provided with a scale of division-marks along the side of the aperture U, so that the brake-block H can be readily adjusted to give a proper fric-
25 tion to sustain the weight of the person about to descend.

In case several persons are to descend, the

rope C, after each descent, is drawn up and the hook upon its other end is hooked into the supporting eyebolt, which brings the block A
30 into proper position for the next descent, each person being provided with a separate waist-band.

Having thus described my invention, I claim as new and desire to secure by Letters Patent— 35

1. In a fire-escape, the combination, with the recessed core D, of the block A, the rope C, and the brake-block H, of the rocking block F, made angular upon its inner side and concaved upon its outer side, whereby the friction
40 upon the said rope can be more readily controlled, as set forth.

2. In a fire-escape, the combination, with the window-frame, of the hinged bar Q, having beveled inner end, and provided with an
45 eye, P, and the brace-chain S, substantially as herein shown and described, whereby the rope will be supported at a suitable distance from the wall of a building, as set forth.

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Witnesses:

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