

(No Model.)

L. J. EVANS

FIRE ESCAPE.

No. 300,857.

Patented June 24, 1884.

Fig. 1.

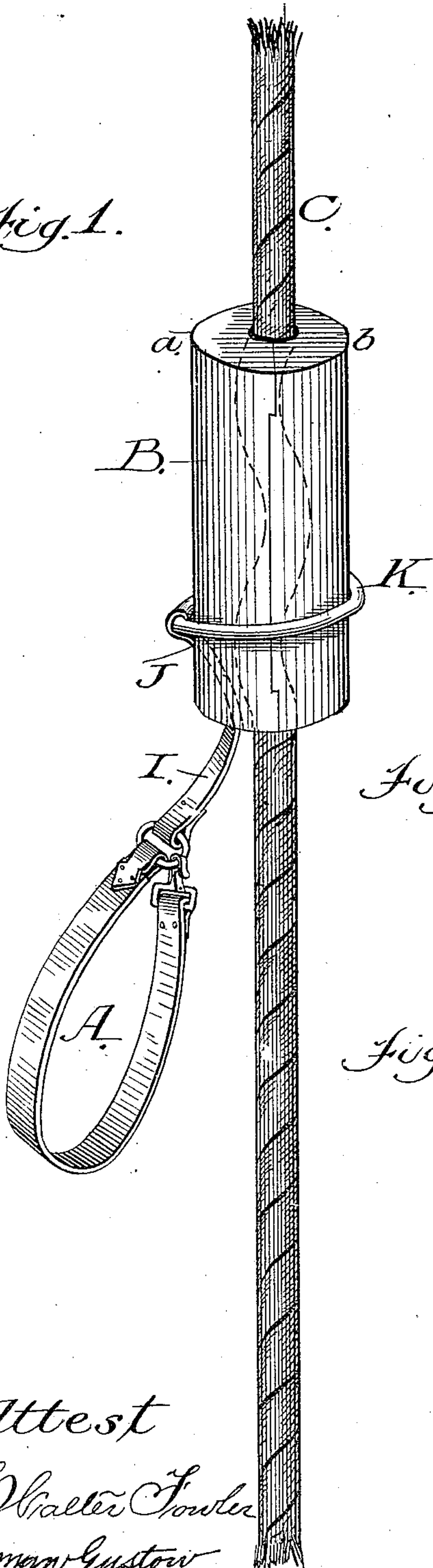


Fig. 2.

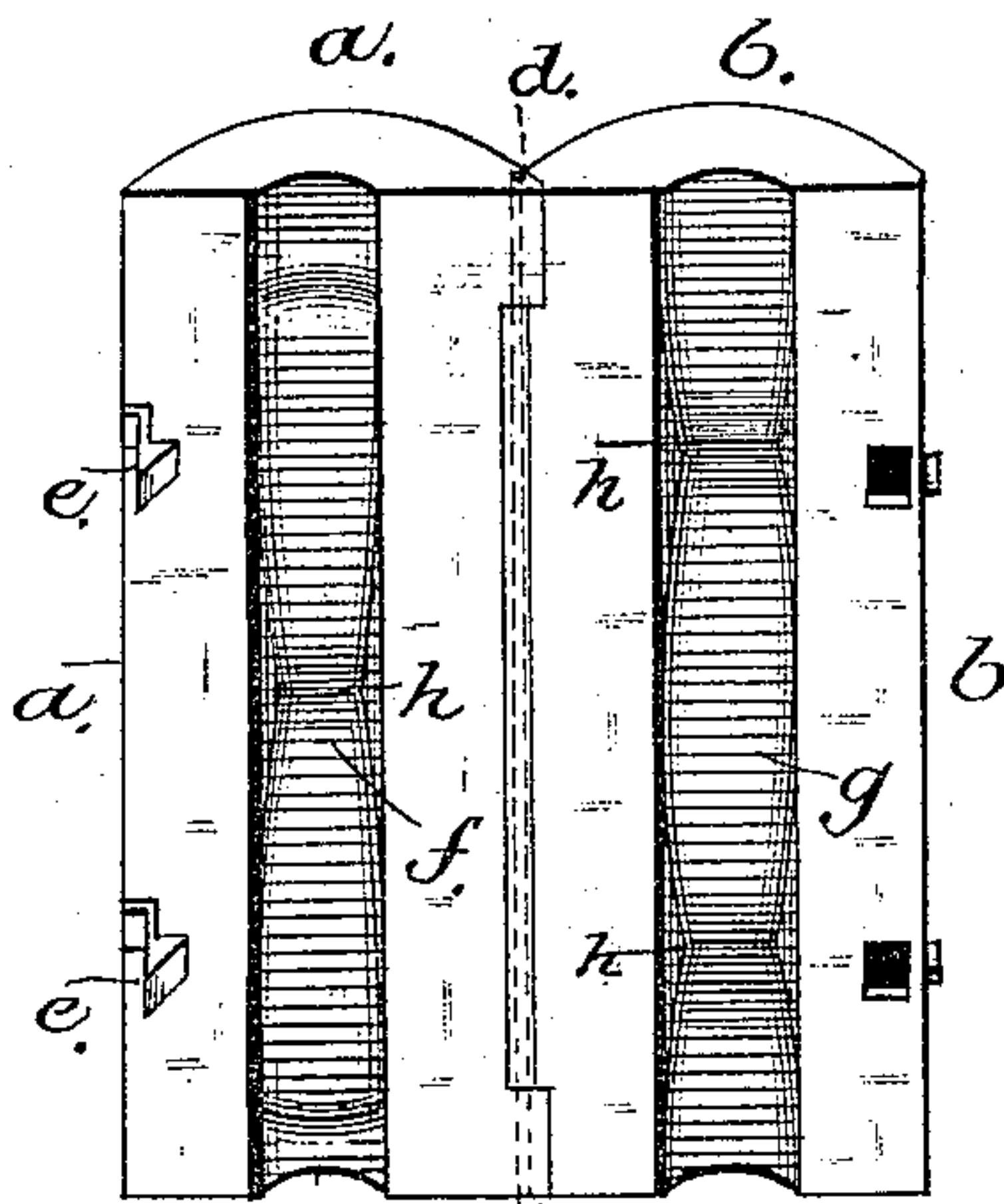


Fig. 3.

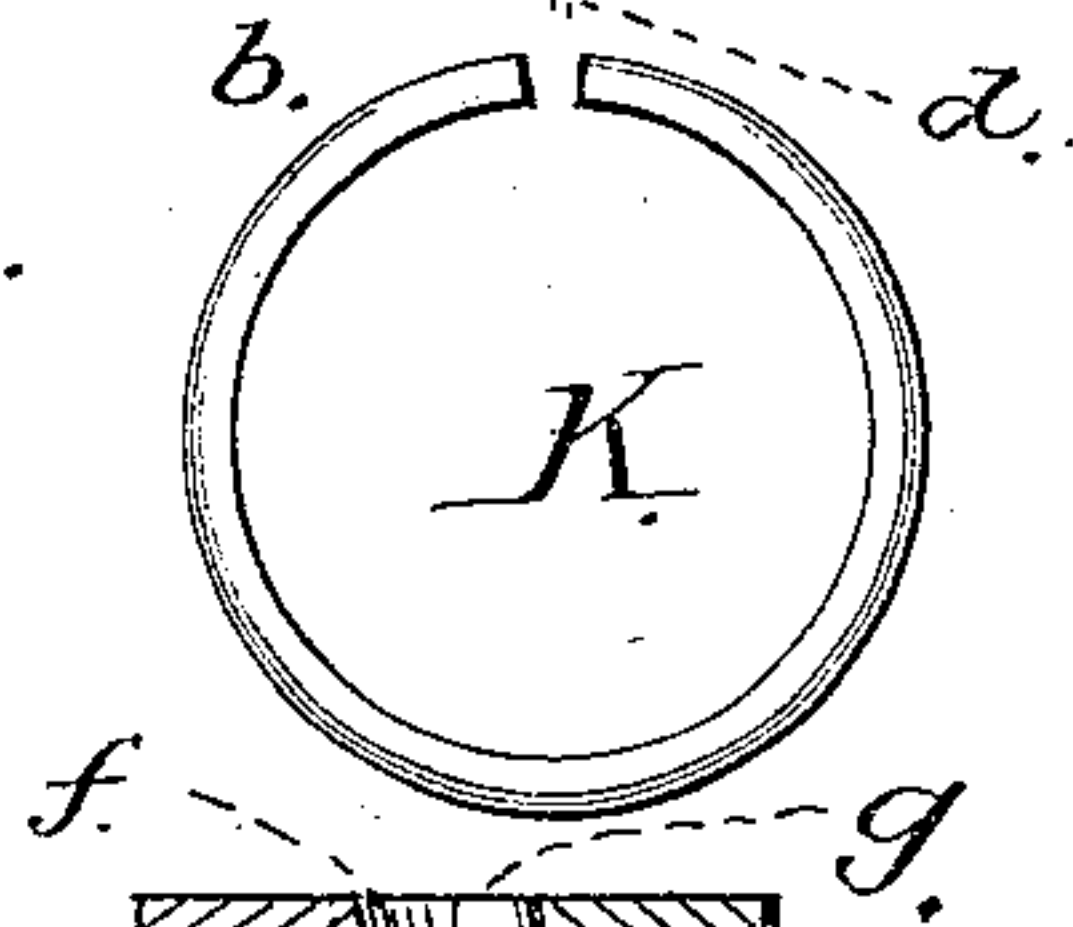
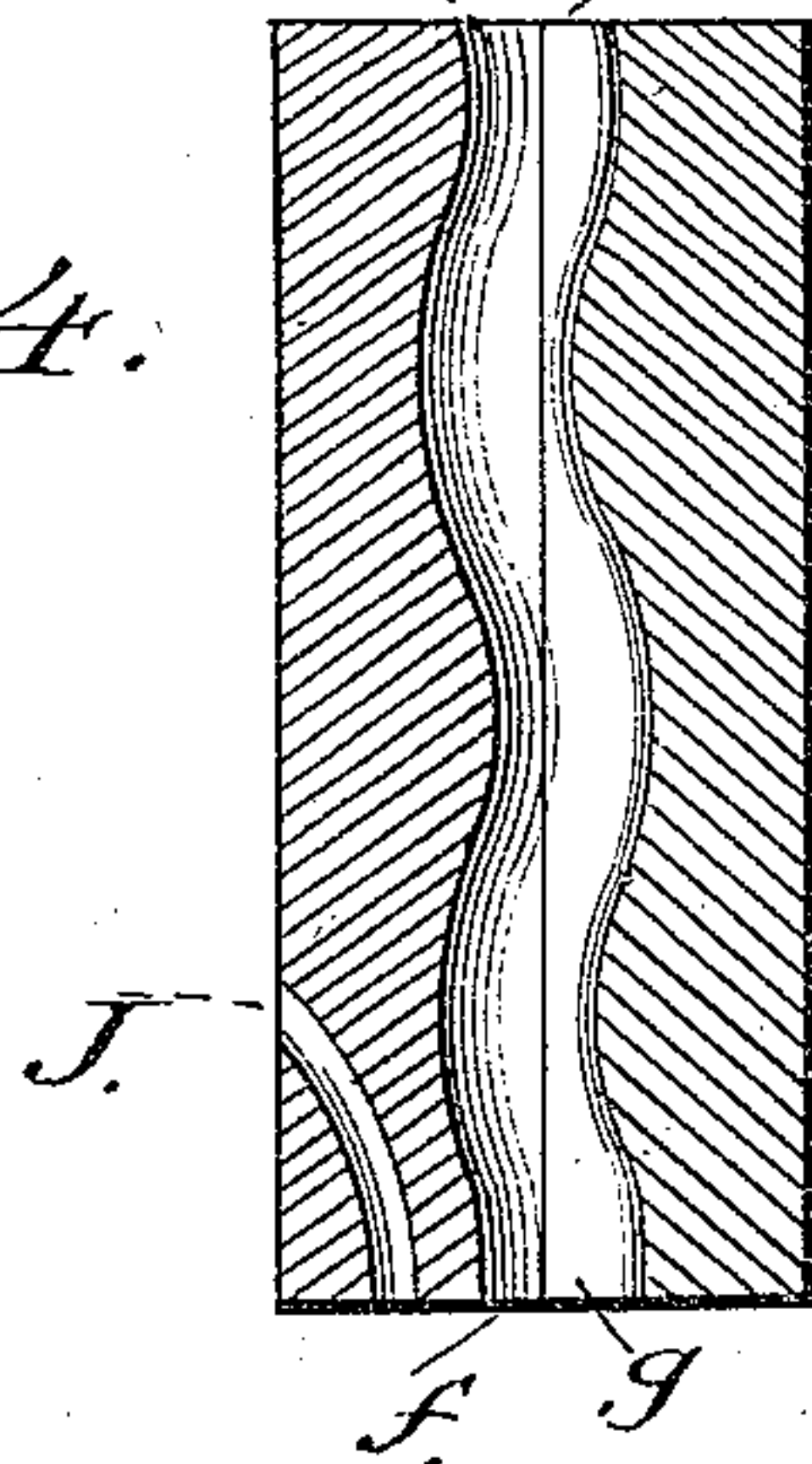


Fig. 4.



Attest

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UNITED STATES PATENT OFFICE.

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 300,857, dated June 24, 1884.

Application filed May 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, LEWIS J. EVANS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fire-Escapes; and I do hereby 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.

The invention relates to an improvement in fire-escapes; and it consists, essentially, in a novel clamp to be attached to a belt, and which clamp is to control the descent of a person from the burning building.

The invention is particularly applicable to fire-escapes in which a rope extends from the windows of a building to the ground, and down which the escaping persons descend. It is understood that the person leaving the building will apply a belt having the clamp attached about his body, and then close the clamp upon the rope, the effect of the clamp being to regulate the speed with which the person moves down the rope, so as to render the escape safe and effective.

Referring to the accompanying drawings, Figure 1 is a perspective view of the invention. Fig. 2 is a view in perspective of the clamp thrown open. Fig. 3 is a detached view of the split ring, and Fig. 4 is a central vertical longitudinal section of Fig. 1.

A denotes the belt which is to be placed around the body of the person seeking to escape from the building, and to which belt is firmly attached the clamp B, composed of two hinged sections, *a b*, which are adapted to be closed upon the rope C when the apparatus is in use. The belt A may be of any suitable construction, the only essential consideration being that it be of sufficient strength to sustain the weight of the person around whose body it is secured. The sections *a b*, composing the clamp B, are hinged together at *d*, and upon their opposite side will be provided a spring-catch, *e*, whereby the two sections, when closed, will lock themselves together. In lieu of the spring-catch *e*, the sections *a b* may be fastened together, if desired, by a set-screw or otherwise.

In the inner faces of the sections *a b* are cut or otherwise formed the elongated grooves *f g*, respectively, any number of the grooves being employed, according to the size of the clamp and other circumstances. The grooves in each section *a b* connect with each other by smaller grooves or necks *h*, and when the two grooved faces of the sections *a b* are brought together the necks *h*, connecting the grooves *f* in the section *a*, will come opposite to the central portions of the grooves *g* in the sections *b*, the necks connecting the grooves *g* being in like relation to the grooves *f*.

In the practical use of the invention the clamp B is closed upon the rope C, which, when in this position, will describe an angular line, being forced into the grooves *f g* alternately by the connecting-necks *h*. The object of the clamp B is to retain the person wearing the belt A in proper relation to the rope C, and to afford a safe passage to the ground, and this latter object is consummated by the peculiar arrangement of the grooves *f g*, whereby the rope, being pressed out of a true line, is enabled to pass through the clamp slowly and regularly, and not otherwise, the speed of the passage being governed in some degree, of course, by the amount of pressure exerted by the clamp upon the rope. The belt A being around the body of the person and the clamp B closed upon the rope C, a safe descent may be made, the movement being restricted and controlled by the irregular line of the rope within the clamp, as aforesaid. The descent may be still further or wholly restricted by the person employing the apparatus merely bending or folding the rope against the lower edges of the clamp, or at an angle to the right line of the descent.

It will appear plain that the size of the clamp B and the number of grooves *f g* employed, together with the style of hinge and locking device, may be varied without departing from the spirit of the invention.

The belt A may be of any suitable construction, and will be readily understood by reference to the drawings without further description. To the belt A is attached the trace or strap I, which, in the act of connecting the belt

with the clamp B, is passed through the slot J, cut in or cast with the clamp. A split ring, K, is then passed into the loop at the free end of the trace I, which has the effect of preventing the separation of the belt and clamp. The split in the ring K is sufficiently large to permit the passage through it of the rope C. Thus I am enabled, after I have locked the clamp upon the rope C, to slip the ring upon the rope and allow it—the ring—to drop over the clamp in about the position indicated in the drawings, whereby the clamp and belt and the clamp and rope are additionally and very firmly secured. The clamp may be secured upon the rope at any point between its ends, and is readily detachable at will.

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

In a fire-escape, the clamp-sections *a b*, having grooves *f g*, respectively, and necks *h*, arranged as shown and described, in combination with the rope C, belt A, trace I, and split ring K, the clamp being provided with a slot, J, to receive the trace, substantially as specified.

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

LEWIS J. EVANS.

Witnesses:

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HERMAN GUSTOW.