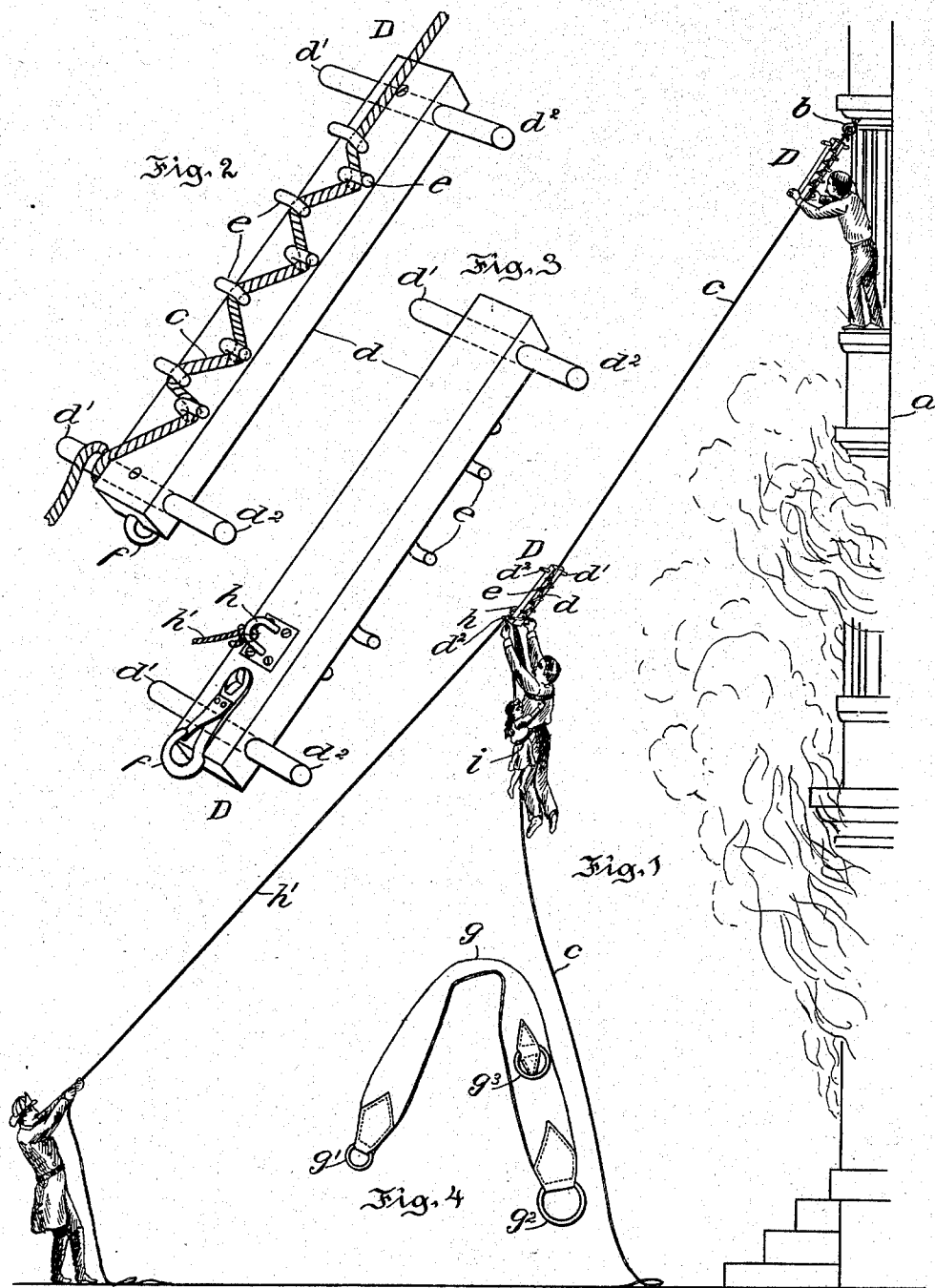


(No Model.)

L. A. H. ENGELKE.
FIRE ESCAPE.

No. 504,868.

Patented Sept. 12, 1893.



Witnesses:

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 504,868, dated September 12, 1893.

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To all whom it may concern:

Be it known that I, LEOPOLD A. H. ENGELKE, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

My invention has relation to fire-escape appliances; and it relates more particularly to the construction and arrangement of such a device of the general class designated as portable devices or appliances for effecting the escape with safety from burning structures. The principal objects of my invention are first, to provide a fire-escape which is simple, durable, inexpensive, safe and effective in action; second, to provide a fire-escape which may be readily connected with a rope or similar article for effecting an escape from a burning structure; third, to provide a portable fire-escape device so constructed and arranged as that rapidity of movement of the same in connection with a rope or similar article is controlled by the person in descent suspended from the device; and fourth, to provide a portable fire-escape device detachably connected with a rope or similar article and controlled thereby as to the rapidity of movement of the device in a person's descent suspended therefrom and the device provided with means for supporting therefrom a body belt or sling in such manner as to equalize friction on the working parts of the device against the rope or other article and to lessen strain on the arms of the person in descent from an elevated structure.

My invention consists of a portable fire-escape device provided with handles and staggered clips, staples or prongs and having a spring controlled hook and loop for the reception of a body sling or belt and a danger-line.

My invention further consists of the improvements in fire-escape appliances herein-after described and claimed.

The nature and general features of my invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof, and in which—

Figure 1, is a perspective view of a fire-es-

cape embodying the features of my invention in application to a burning building and illustrating the mode of escape and descent of persons therefrom by the use of such an appliance. Figs. 2 and 3, are perspective views of the portable fire-escape device, showing respectively the construction and arrangement of the front and rear thereof; and Fig. 4, is a similar view of a body-belt or sling with eyes or loops for attachment to the spring controlled hook of the device and for supporting a parcel from a sling or belt suitably attached thereto.

Referring to the drawings *a*, is a building provided with a staple or screw-eye *b*, secured to the wood-work or other portion of the building adjacent to or above an exit, as a window of the building.

c, is a rope or similar article attached to the screw-eye or staple *b*.

D, is the fire-escape device, comprising a rectangular block or bar of wood or other suitable material *d*, provided with transverse gripping-arms or handles *d'* and *d''*, disposed preferably at or near the top and bottom of the block or bar *d*.

e, is a series of angular hooks, clips, staples or prongs, arranged in staggered form and suitably secured into and projecting from the block or bar *d*, for engaging the rope or similar article *c*, in order to permit of the descent of a person or persons from a burning building.

f, is a spring controlled snap or similar hook secured to one side of the block *d*, for engaging the eyes *g'* and *g''*, of a body belt or sling *g*, provided with a ring or eye *g''*, pivotally connected with the belt or sling *g*, for attaching in any preferred manner a parcel or person so as to hang therefrom and to be supported at or about the back of the person descending the rope or similar article *c*, from the burning building by means of the device *D*, constituting the means of my invention for effecting an escape from a burning building.

h, is an inverted U-shaped staple preferably screwed to the rear face of the device *D*, for attaching thereto a rope designated a "danger-line" *h'*, in order to permit of the descent of persons from a burning building with safety beyond the reach of the issuing flames from the building in the manner for

example, illustrated in Fig. 1, of the drawings.

To any suitable part of the body of a person to descend from a building may be attached belts or slings *z*, for permitting one person in descending from the upper portion of a building to support one or more other persons or parcels either from the shoulders or body and in such manner as to afford a safe escape beyond the range of the burning structure.

The mode of operation of the device hereinbefore described, is as follows: The rope or similar article to be provided with a snap-hook at one end thereof is attached to the screw-eye *b*, suitably secured to the framework of the building about the wood-work of the windows thereof and in case of fire, the rope is thrown to the street, and the upper portion thereof is then applied to the grip block or bar *d*, provided with the series of hooks, angular clips, staples or prongs *e*, for example, in the manner illustrated in Figs. 1 and 2, and the body belt or sling *g*, is caused to be engaged at the rings or loops *g'* and *g''*, with the spring controlled hook *f*. The danger-line *h'*, by means of a snap hook, not shown, connected therewith, is attached to the inverted U-shaped staple *h*, and held by a person from the street in the manner illustrated in Fig. 1, when the person to descend grips one of the transverse arms of the device with the right hand and with the other hand in engagement with another of the transverse arms having the rope *c*, coiled around the same one or more times for regulating the rapidity of descent as the exigencies of the case demand or require. The body-belt or sling *g*, tends to equalize the strain on the person as well as to lessen the friction and resistance of the working parts of the device against the rope in the descent of the person from the building. The sling or body-belt *g*, may be provided with a series of attaching loops in order that parcels or persons suspended therefrom may be safely

delivered from a burning structure by a person in descent therefrom, because the weight of the person suspended is fully compensated for by the belt *g*, in its connection with the device, leaving both arms practically free to afford with the least amount of strain, either a rapid or moderate descent, because with simply one hand in engagement with one of the transverse-arms of the device, the other is free to control the rapidity of descent, according to the number of times the rope is coiled around the other or left hand portion of one of the transverse arms of the device *D*.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A fire escape device, comprising an oblong block or bar provided with top and bottom transverse gripping handles, angular hooks or prongs secured into said block or bar and disposed in staggered position and a supported rope detachably engaging with said hooks or prongs, substantially as and for the purposes described.

2. A fire escape device, comprising a rectangular block or bar provided with top and bottom gripping handles, a series of angular hooks or prongs secured into said block or bar and disposed in staggered position with respect to each other, a rope detachably engaging therewith, a spring controlled hook secured to one surface of said block or bar and detachably engaging a body belt or sling provided with a ring, and a loop secured to said block or bar for detachably engaging a danger line therewith, substantially as and for the purposes described.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

LEOPOLD A. H. ENGELKE.

Witnesses:

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