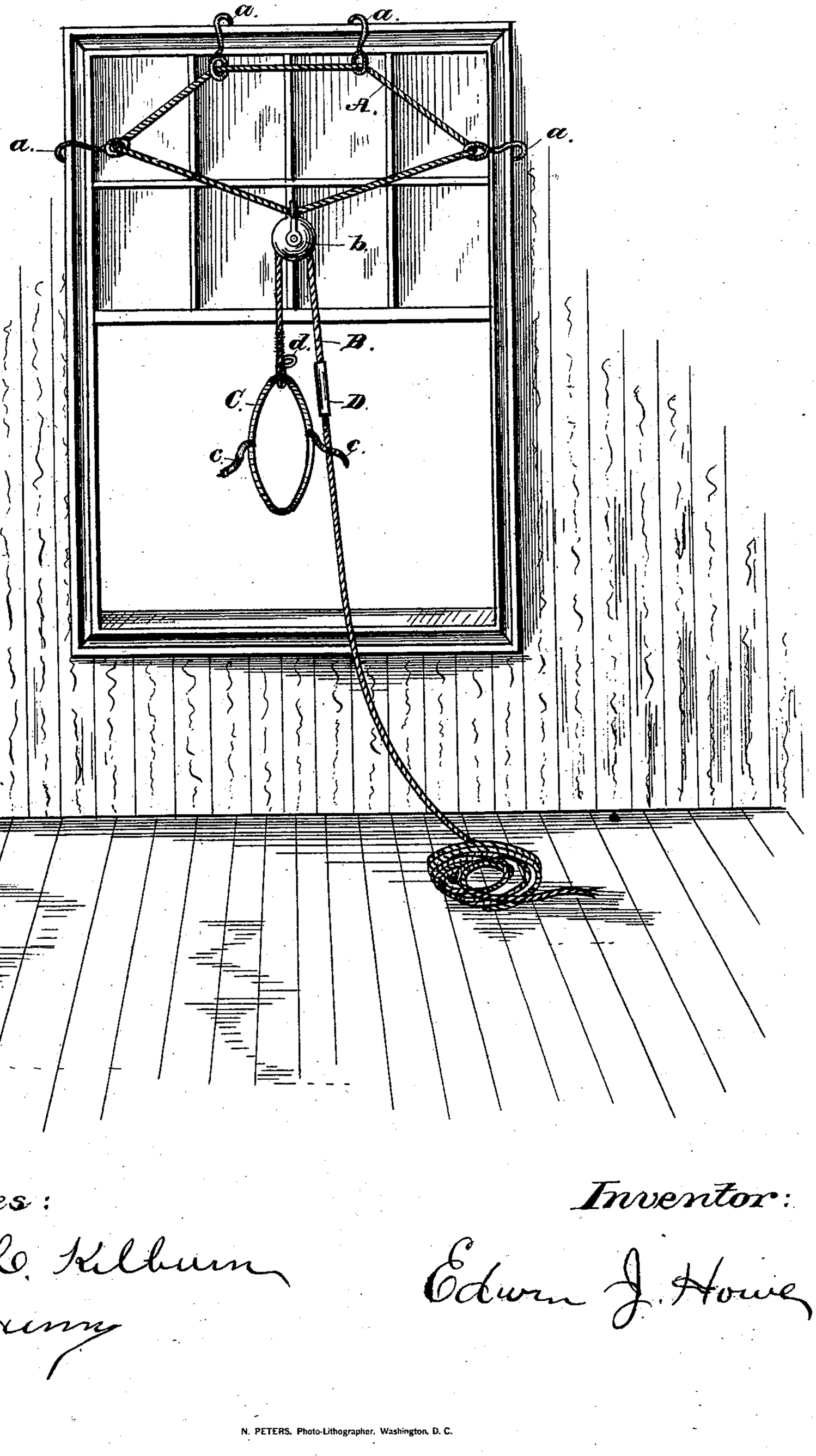
(No Model.)

E. J. HOWE.

FIRE ESCAPE.

No. 275,658. Patented Apr. 10, 1883.



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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 275,658, dated April 10, 1883.

Application filed February 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDWIN J. HOWE, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to portable fire-escapes; and it consists in forming an endless rope or band provided with adjustable hooks, and also carrying a sheave for the rope, the latter being provided with suitable means for the descent of a person from an elevated point.

In the drawing the figure represents a section of a room, showing my improvement attached to the inside of a window-frame, and in condition for the escape of any person in the room.

A represents an endless rope or band of suitable material. A series of hooks, *a*, are mounted on the part A by means of eyes, as shown, and are adjustable to any point on the band by simply moving them along the rope or band. The hooks *a* are made of metal, and the points of the hooks are sharpened, so that they will take firm hold of the part of the building to which they are to be attached. I use any suitable number of these hooks, and I prefer to make them of steel, although I do not confine myself to this material. A sheave or pulley, *b*, is also mounted on the endless rope or band in the same manner as the hooks, and is adjustable, like them, to any point on the rope or band; but this sheave may be secured permanently to some part of the band, if desired. A rope, B, of the proper size, is passed through the sheave or pulley *b*, and is used to make the descent to the ground. The sheave and its rope comprise only an ordinary "whip-tackle." I provide one end of the rope B with a belt or band, C, to surround the person, and said belt may have supplemental straps *c*, secured thereto to buckle underneath the arms. Instead of the band C, suitable harness may be provided for the feet, in which case of course the band would be dispensed with. The end of the rope may also be provided with an eye, through which the bight of the rope may be passed to act as a brake or retarder. I also surround the rope B with a short piece of rubber tubing or analogous material, by which the velocity of the descent of the person may be regulated, and to prevent injury to the hands by the rope slipping through them.

The hooks as well as the ropes used are as light as is consistent with safety, and the rope which runs through the sheave is made long enough to reach the ground from the higher stories of a house. The manner of using the escape will be readily apparent.

The endless band with its adjustable hooks and sheave may be secured to any portion of the window or door frame, either on the inside or outside of a burning building, and to the top, bottom, or sides, or both to the top and sides of a frame, as shown in the drawing, or to the sides and the bottom or sill of a frame.

The person who is to make the descent to the ground secures the band C and straps *c* around his person, as before described, and, seizing hold of the rope where it is surrounded by the tube D, allows the rope to slip through said tube and through the sheave *b* and gradually makes the descent. Any pressure of the elastic tube or cover D acts as a break and prevents the rope from rendering too freely, and thereby limits the velocity at which the descent is made.

My device is simple in construction, easily portable, and may be made sufficiently compact to carry in an ordinary valise, and yet strong enough to insure safety in case of fire.

I am aware that it is not new to use an ordinary whip-tackle provided at one end with suitable harness to support the body as a fire-escape, nor to provide the rope with a flexible tube or cover to regulate the descent and prevent injury to the hands, and such I do not claim, broadly, as my invention; nor do I claim a fire-escape provided with a short section of rope having hooks at its free ends which are adapted to engage with screw-eyes on the sides of a window-frame; but

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

1. In a portable fire-escape, an endless rope or band provided with adjustable hooks which are adapted to be engaged with a window or

door frame of a building, substantially as set forth.

2. In a portable fire-escape, the combination of an endless rope or band with adjustable hooks and sheave, with the rope B, provided with suitable devices at one of its free ends for supporting the person, substantially as set forth.

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

EDWIN J. HOWE.

Witnesses:
IRA C. KILBURN,
J. C. DUNN.