

(No Model.)

J. E. CLOKEY.

FIRE ESCAPE.

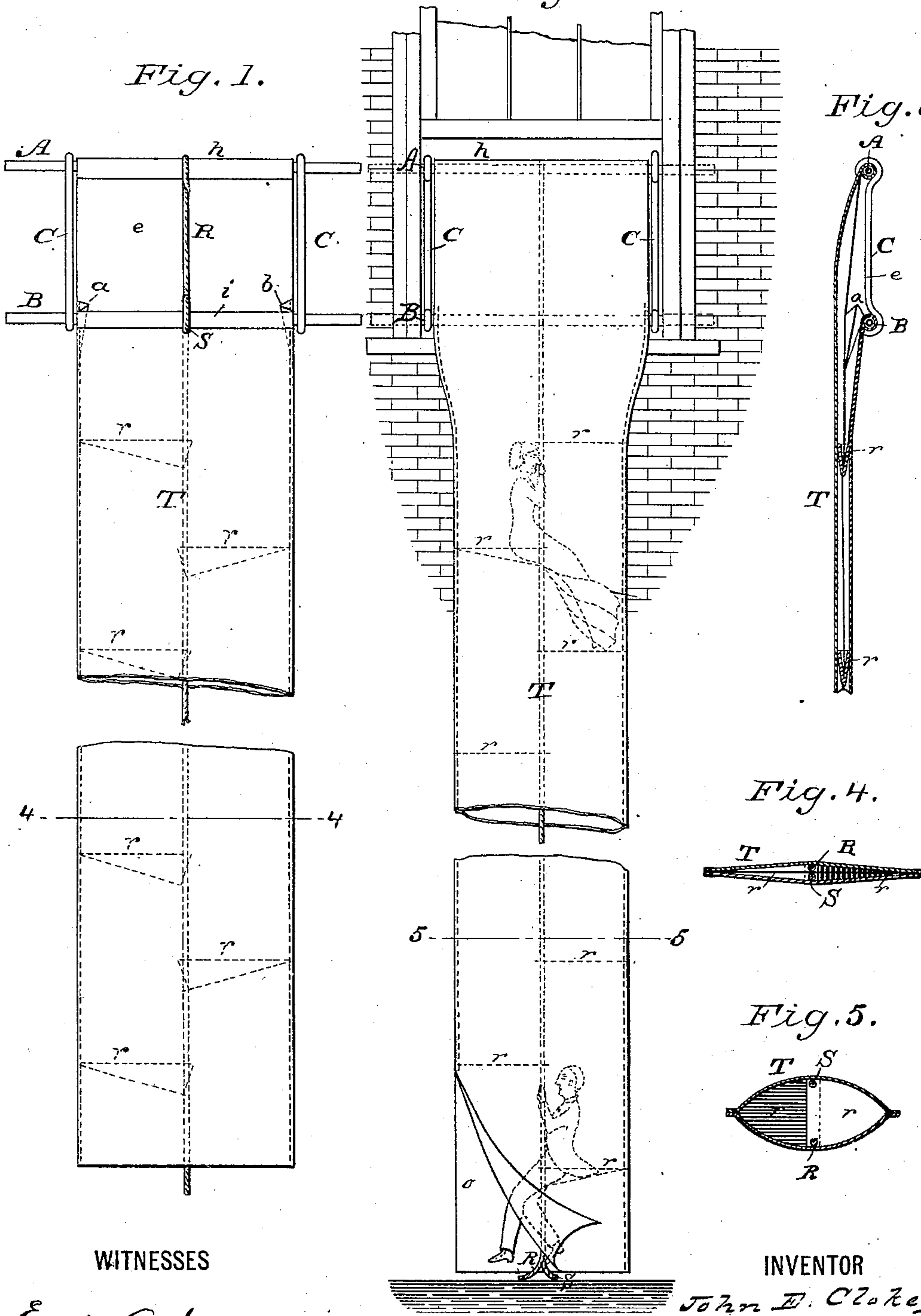
No. 309,929.

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*Fig. 2.*

*Fig. 1.*

*Fig. 3.*



WITNESSES

Ed. A. Newman.  
Ch. C. Newman.

By his Attorney

INVENTOR

John E. Clokey.

*[Signature]*

# UNITED STATES PATENT OFFICE.

JOHN E. CLOKEY, OF WASHINGTON, DISTRICT OF COLUMBIA.

## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 309,929, dated December 30, 1884.

Application filed May 29, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN E. CLOKEY, a citizen of the United States, residing at Washington, in the District of Columbia, have invented a new and useful Improvement in Fire-Escapes, of which the following is a specification.

This invention relates to devices for providing extraordinary means of escape from burning buildings, and to such devices of the class known as "detached" or "portable" fire-escapes.

The present device comprises characteristics of three distinct forms of portable fire-escapes heretofore used or proposed—viz., the tubular chute, the ladder, and the hand-rope; and my invention embodied therein consists in certain novel combinations of parts, hereinafter set forth and claimed.

The objects of this invention are to afford, in a portable fire-escape, provision for descending from an elevated window to the ground, outside the wall of a building that is on fire, not only with safety, but concealed from view and protected from smoke and sparks, and to adapt the same for use by weak and timid or nervous people, and especially women and children, who most need the aid of such devices.

A sheet of drawings accompanies this specification as part thereof.

Figure 1 of these drawings is an elevation of my improved fire-escape, showing its entrance side or front. Fig. 2 is an elevation thereof as applied to a window, showing its outer side or back; and Fig. 3 represents a longitudinal section on the line 3 3, Fig. 1; Fig. 4, a cross-section on the line 4 4, Fig. 1; and Fig. 5, a cross-section in the same plane, showing the tube expanded as by a person descending therein.

Like letters of reference indicate corresponding parts in the several figures.

This fire-escape consists, mainly, of a flexible tube, T, long enough to reach a given distance to the ground, and of the internal width of a given size of window. This is made of suitable textile fabric—such as ticking, duck, or light canvas—which may be chemically treated, so as to be fire-proof or not easily ignited. The back and front are preferably formed by distinct pieces of fabric, woven of proper

width, and united by strong seams along their selvages. These seams are located at the longitudinal edges of the tube, as viewed in Figs. 1 and 2. Adjoining these edges alternately the tube is provided internally with seats or "rests" r, (seen in dotted lines in Figs. 1 and 2 and exposed in the sectional views,) each of these rests being of semi-oval or triangular shape, with its point at the edge of the tube, and adapted to fold in line therewith when the tube is collapsed or flat, as shown in Figs. 3 and 4. These rests may, as shown, be made of two thicknesses of the material of which the tube is composed, and sewed in along their curved or taper edges, with the fold at the free edge of the rest; or they may be composed of heavier fabric or other approved material, and securely fastened in place in any suitable way. When the tube is in use and expanded, as shown in Figs. 2 and 5, the outer extremities of the rests—that is to say, their ends adjoining the respective sides of the tube—should be level with or somewhat below the level of the inner or free edges of the rests, and the latter should extend to or somewhat beyond the middle of the tube, as shown in Figs. 2 or 5, so as to preclude falling between them. The rests should be about two feet and a half apart, so that a person sitting on one can readily reach the one next below with the feet, while the head will be below the level of the rest next above, as illustrated by dotted outlines of human figures in Fig. 2, and the upper rest should be located a short distance below the entrance to the tube, (seen at e in Figs. 1 and 3,) so as to be easily reached by a child.

The front of the tube is made shorter than the back, about two feet, to form said entrance e, and the upper edges of the respective parts terminate in strong tubular hems h i. These hems receive a pair of horizontal cross-bars, A B, of suitable length for the size of window, and made of gas-pipe or other suitable material, which are united immediately outside of the respective edges of the tube, so as to be kept at a proper distance apart, by a pair of connecting links or struts, C C. The escape of the struts from the ends of said cross-bars may be prevented by locking-pins, as shown, or in any approved way; and said struts may be fitted to the window so as to prevent



the longitudinal displacement of either cross-bar when in position, as seen in Fig. 2. The upper end of the tube T is moreover preferably expanded by a pair of gores, *a b*, inserted in the respective edge-seams at the top of the "front" of the tube, to facilitate entrance thereto. A pair of ropes, R S, are securely looped around the respective hems *h i*, and therewith around the respective cross-bars A B, after the latter are inserted. These said ropes extend down at the respective sides of the rests *r* to the bottom of the tube T, forming throughout their length convenient hand-holes, by which persons descending the tube may assist themselves, and the ropes may, if desired, be knotted so as to be effectively grasped with less power.

In its flat condition (represented in Figs. 1, 3, and 4) the whole device may be folded or rolled up into compact shape and stowed away, or utilized beneath a mattress or bed, for example. To prepare it for use, the lower sash of a window having been raised, the free end of the tube T is passed out and lowered until the entrance *e* is reached, and, this being turned toward the room, the cross-bars A B are adjusted against the wall or casing inside the window, the lower bar upon the inner sill or ledge. The tube is now securely supported.

To use the escape, a lady, for example, wrapping her skirts about her limbs and entering feet foremost in a natural way, before clearing the entrance *e* would find her feet upon or immediately above the upper one of the rests *r*, and, turning and lowering herself to a sitting position upon this rest, would find her feet immediately above the rest *r*, next below, and so on, until as slowly or rapidly as she might wish, she has descended to the bottom of the tube without any great effort on her part and without exposure or shock. In the descent one or both of the hand-ropes R S convenient to the respective hands would naturally be grasped, and the movements of the

body thereby aided and controlled. A child thrown into the tube or falling into it could not fall lower than the second rest below the entrance; while a person could with perfect ease carry a child on one arm while descending. An opening, *o*, in one edge of the tube at its lower extremity, opposite the lowest of the rests *r*, facilitates egress from the tube at the ground.

Having thus described my said improvement in fire-escapes, I claim as my invention and desire to patent under this specification—

1. A portable fire-escape comprising a flexible tube provided internally with seats or rests extending inward from the respective edges of the tube alternately at convenient distances apart, substantially as herein specified.

2. The combination, in a portable fire-escape, of a pair of cross-bars adapted to rest against the wall or casing inside of a window, and a flexible tube attached at its upper end to said cross-bars, and provided with an entrance between them and seats or rests at convenient distances apart between said entrance and the lower extremity of the tube, said seats or rests extending inward from the respective edges of the tube alternately, substantially as herein specified.

3. The combination, in a portable fire-escape, of a pair of cross-bars held at a proper distance apart and adapted to rest against the wall or casing inside of a window, a flexible tube attached at its upper end to said cross-bars, and having an entrance between them, and provided internally with seats or rests at convenient distances apart, extending inward from the respective edges of the tube, and a hand rope or ropes securely attached to said cross-bars and extending downward within the tube, substantially as herein specified, for the purposes set forth.

JOHN E. CLOKEY.

Witnesses:

JAS. L. EWIN,  
A. H. PROCTOR.