(No Model.)

T. HALE.

FIRE ESCAPE.

No. 300,465. Patented June 17, 1884.

Fig. 1.

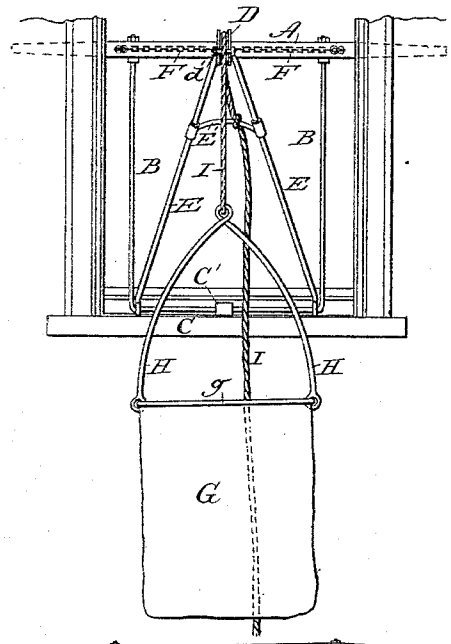
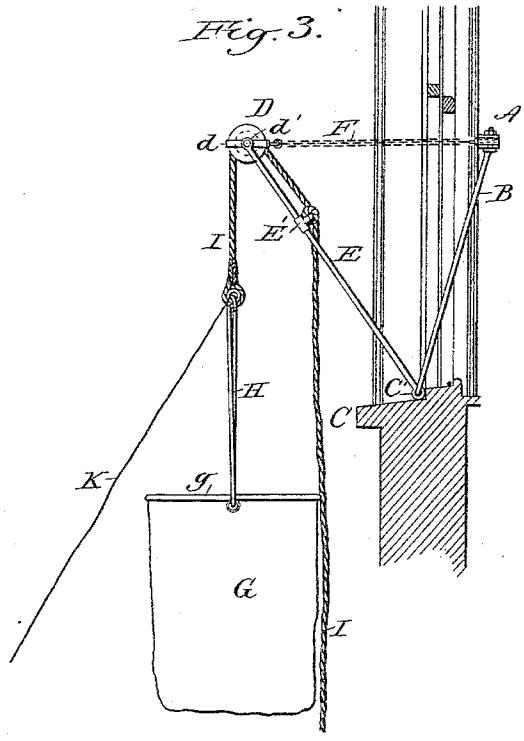


Fig. 3.



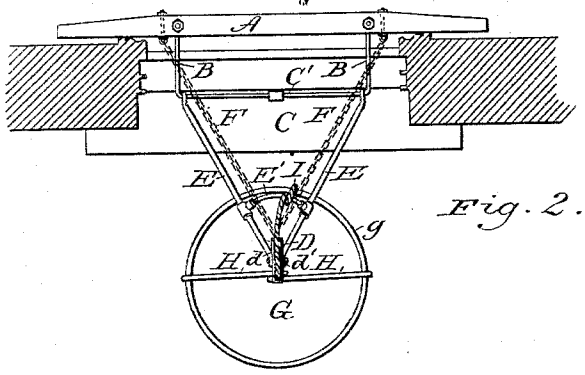


Fig. 2.

Witnesses:
Solon C. Kemon
Chas. A. Pettit

Inventor:
Thomas Hale
By Munn & Co
Attorneys

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

THOMAS HALE, OF CLAYDON, COUNTY OF SUFFOLK, ENGLAND.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 300,465, dated June 17, 1884.

Application filed March 20, 1884. (No model.) Patented in England May 16, 1883, No. 2,459.

To all whom it may concern:

Be it known that I, THOMAS HALE, a subject of the Queen of Great Britain, residing at Claydon, in the county of Suffolk, England, have invented an Improved Domestic Fire-Escape, (for which I have received Letters Patent in Great Britain, No. 2,459, dated May 16, 1883,) of which the following is a specification.

My invention relates to a portable folding fire-escape to be applied to a window of a house; and it consists in the peculiar construction and arrangement of the parts, as hereinafter more fully set forth, and pointed out in the claim.

The escape consists of two parts—the supporting and the lowering apparatus. The former consists of a frame composed, mainly, of a cross-bar supported by uprights adapted to rest upon the window-sill and support the bar under the weight of the apparatus and load, the ends of said cross-bar extending beyond the width of the window, and bearing against the sides of the window opening or frame, so as to prevent the apparatus falling outward. The lowering-rope runs over a roller or sheave so supported as to project outward a sufficient distance to insure the lowering apparatus clearing the window-sills and front of the house. The entire frame is so constructed as to be light and easily applied in position in the window-opening after raising the lower sash. The lowering apparatus consists of a canvas bag distended by means of a hoop, and suspended by a metal yoke or by branch ropes attached to the hoop at three points, and connected to the main lowering-rope.

In the drawings, Figure 1 is a front elevation, Fig. 2 a plan, and Fig. 3 a side elevation, of the fire-escape as applied in a window-opening.

A is the cross-bar extending across the window-opening, and resting by its ends against the window-frame.

B B are a pair of uprights bolted to said bar by their upper ends, and resting on the window-sill C at the lower part, where they are bent toward one another and connected together.

D is the sheave or roller over which runs the lowering-rope. It is supported by a jib, which projects outward sufficiently to enable the lowering-sack to clear the sills and other projections from the house-front, this jib being composed of a pair of struts, E, jointed at their lower ends to the cross-bar C', formed by the lower part of the uprights B, and supported in the diagonal position by tie-chains or other flexible connections F, attached to the cross-bar A and to the frame *d*, in which the sheave D turns. The sheave runs on a bolt, *d'*, which passes through eyes in the upper ends of the struts E, and through the frame *d*. The struts E work on joints at foot, so that the apparatus may be folded together when stowed away.

In order to combine lightness with strength, the uprights B and struts E would be made of iron tubing.

The above-described apparatus is supported in position in the window-opening merely by abutting against the inside of the window-frame by the cross-bar A, and upon the window-sill at the outside of the ledge by the foot of the jib, as shown in the various figures, so that no special fittings are required to the window, and the escape may be immediately applied to any ordinary window.

G is the lowering-sack. Its mouth is distended by a hoop at *g*, and it is supported by an iron frame or yoke, H, attached to the lowering-rope I, which passes over the sheave or roller D, and may be held either by the person being lowered, or from the ground below, or from within the room. To enable the descent to be more easily checked, the rope may be wound one or more times round a cross-bar, E', fixed between the struts E, and a guy-rope, K, may be attached, to enable the sack to be drawn away from the face of the building in order to clear any projecting portions thereof, or to escape flames bursting out of the lower windows.

Having described the nature of the said invention and the manner of performing the same, I declare that what I claim as my invention is—

A fire-escape consisting of a portable folding frame composed of a cross-bar, A, adapted

to be arranged across the inner side of a window-opening, uprights B, secured to the cross-bar A at their upper ends, and provided at their lower ends with the cross-bar C′, inwardly-inclined struts E, pivoted to the bar C′ at their lower ends, and carrying a pulley, D, between their upper ends, flexible connections F, bag B, having handle H, and rope I, secured to the latter and passing over the pulley D, substantially as shown and described.

THOMAS HALE.

Witnesses:
JOHN DEAN,
J. WATT,
17 *Gracechurch Street, London, Notary's Clerks.*