2 Sheets, Sheet 1.

Smith & Burrows,

Fire Escape.

No. 113,357. Patented Apr. 4. 1871.

FIGURE 1

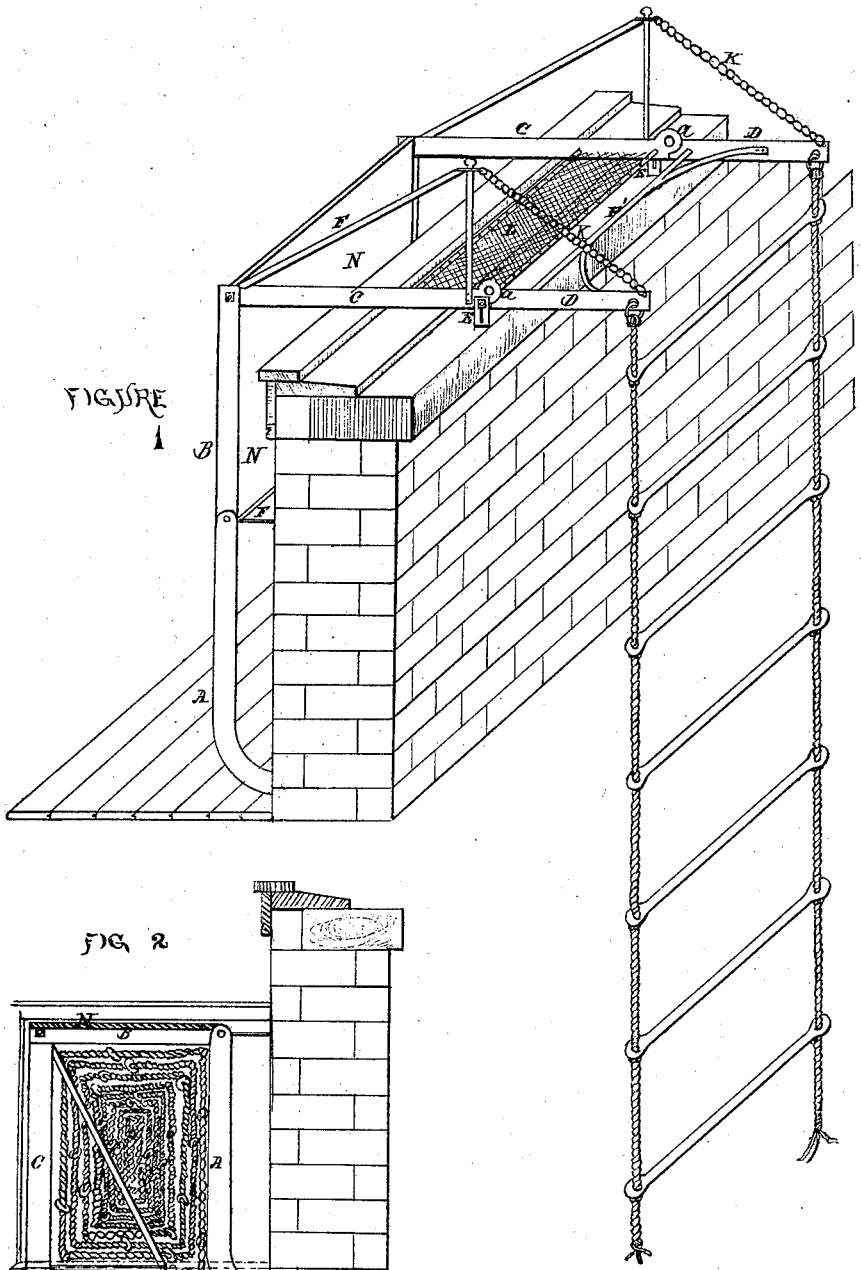
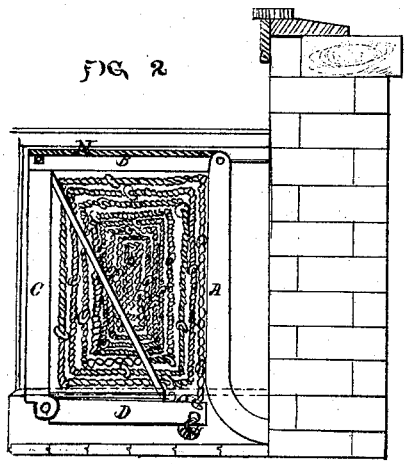


FIG 2



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By their Attorneys
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2 Sheets Sheet 2

Smith & Burrows,

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FIG 3

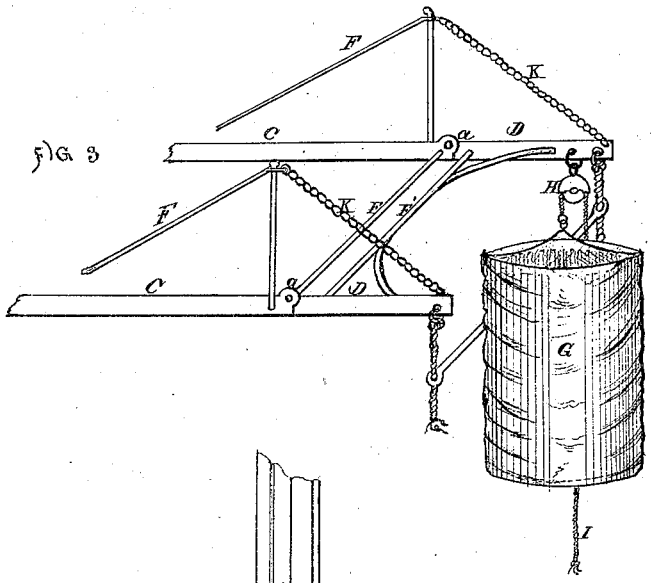
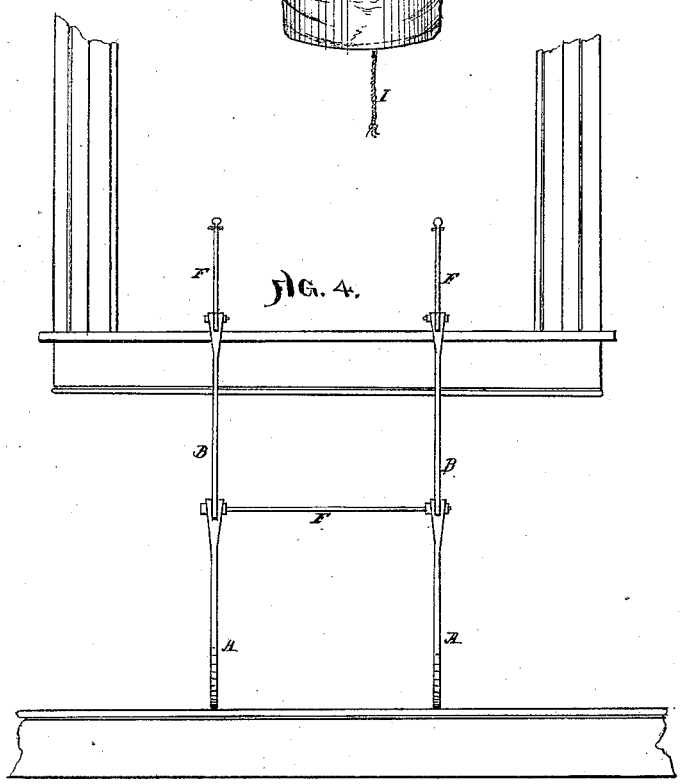


FIG. 4.



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By their Attorneys
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United States Patent Office.

GEORGE C. SMITH AND FRANK M. BURROWS, OF BALTIMORE, MARYLAND.

Letters Patent No. 113,357, dated April 4, 1871.

IMPROVEMENT IN FIRE-ESCAPES.

The Schedule referred to in these Letters Patent and making part of the same.

We, GEORGE C. SMITH and FRANK M. BURROWS, of the city and county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

Our invention consists in providing the inner section of the folding frame with a board, so arranged that when the frame is folded the said inner section and its board will form a top and cover for the frame which incloses the escaping devices within the room.

Our invention also consists in providing the supporting hinged section or sections with a wire-platform, so as to form a safe and easy exit from the window to the ladder.

Our invention also consists in the arrangement of a traveling-bag in connection with a projecting frame braced by flexible and rigid braces, a suspending swiveling-pulley, and a controlling-rope, so as to afford a means for the escape of women and children, and for saving valuables.

In the accompanying drawing—

Figure 1 represents a view in perspective of a portion of a dwelling, showing our improved fire-escape applied to a window thereof in the position it occupies when adjusted for use;

Figure 2, a section of a portion of the front wall, showing the frame folded up and inclosing the escaping device;

Figure 3, a view in perspective of a portion of the hinged sectional frame, and a traveling-bag used in connection therewith, and the ladder; and

Figure 4 represents an elevation of the inside of the window, showing the sectional frame unfolded and supported upon the sill.

The folding frame for the attachment and inclosing of the escaping devices consists, in the example shown, of four sections, A, B, C, and D. Each section is composed of two bars or rods, hinged together so as to be folded and unfolded.

The section A is secured to the inside of the wall beneath the window-sill, and thus forms a permanent attachment for the escaping devices in a position ready for use. When unfolded the sections A or B will occupy vertical positions against the inside of the window-sill, and the two sections B and C will occupy horizontal positions with C, resting upon the sill, and D extending beyond the sill, as shown in fig. 1.

The escaping devices are attached to and suspended from the outer ends of the section D.

These devices consist of two wire ropes, P, having foot cross-rods secured thereto at proper intervals so as to form a ladder, and a traveling-bag or carrier, G, suspended by a wire rope, I, to a swiveling-pulley, H, from one of the bars or rods of the projecting section D, so as to be lowered to the pavement and pulled up by the cord I by persons in the room, on the pavement below, or by the person descending the ladder, and thus effect the escape of women and children who could not descend the ladder. This traveling-bag or carrier not only affords a safe escape, but, by being arranged by the side of the ladder, and descending in company with persons escaping by the ladder, inspires confidence in females and children in excitement and alarm, and in this respect is of great advantage and utility in a fire-escape.

The projecting section D is stayed horizontally by a brace, F', and is connected to the section C by knuckle-joints *a;* and it is braced vertically by flexible braces K connected to rigid braces F of the section C, thus rendering the projecting section strong and secure, while allowing it to be folded up.

These sections C and D are supported upon the outside of the sill by feet or projections E, made adjustable, if desired.

The section C or D, or both, thus constructed, is provided with a wire-platform, L, secured to the bars or rods so as to cover the sill and extend out to near the ladder to form a safe exit from the window and means for reaching the ladder. This platform L also forms a bed upon which the ladder is folded before folding up the frame, and does not interfere with such folding.

The sectional supporting-frame for the escape devices when not in use is folded up so as to occupy a rectangular form beneath the window, as shown in fig. 2, in which position the section D forms the bottom, C the front, and B the top, with the ladder and traveling-bag inclosed therein.

The section B is closed by a board, N, which forms the top of the frame when folded. When thus folded and covered the apparatus occupies a comparatively small space in the room, and can be turned up and thrown out of the window in a moment, free from entanglement, and assumes a position at once ready for use.

The rope of the bag or carrier G may be held within the room or thrown out and controlled by those descending the ladder or on the pavement.

We have shown the hinged frame as having four sections, but it is obvious that three will answer the purpose as well by hinging the bars or rods B to bolts secured to the wall beneath the window sill. In this case the section B will rest against the sill when brought to a vertical position.

The drawing shows the frame A as projecting out from the wall, but when used it is placed against the wall so as to bring the frame B against the sill when unfolded.

Having described our invention,

We claim—

1. The sectional frame B, provided with a board, N, so that when said frame is folded said board will form the top and cover for the inclosing sectional frame, as described.

2. The sectional frames C or D, one or both, provided with a platform, L, extending over and beyond the window-sill to form a safe communication with the escaping devices, and to fold with said sections, as described.

3. The flexible braces K of the hinged section D, in combination with the rigid braces F of the hinged section C, as and for the purpose described.

4. The traveling-bag G, in combination with the projecting frame D, braces F and K, the suspending swiveling-pulley, and the rope T, all arranged as and for the purpose described.

5. The supports E for the knuckles or hinges of the frames C and D, arranged as described.

6. In a fire-escape, the combination of the hinged sections A B C D, the wire-platform L, the supports E, the flexible and rigid braces K and F, and the traveling and fixed means of escape, the several parts being constructed, arranged, and operating as described.

In testimony whereof we have hereunto signed our names.

GEORGE C. SMITH.
FRANK M. BURROWS.

Witnesses:
A. E. H. JOHNSON,
J. W. HAMILTON JOHNSON.