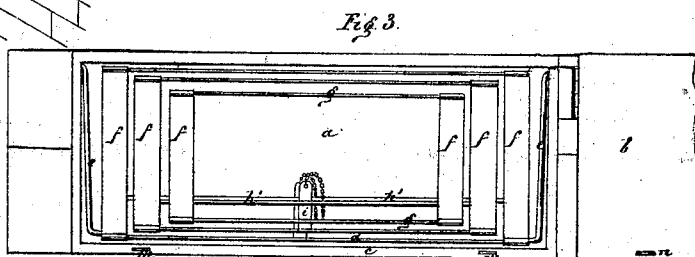
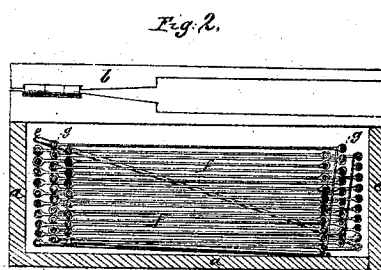
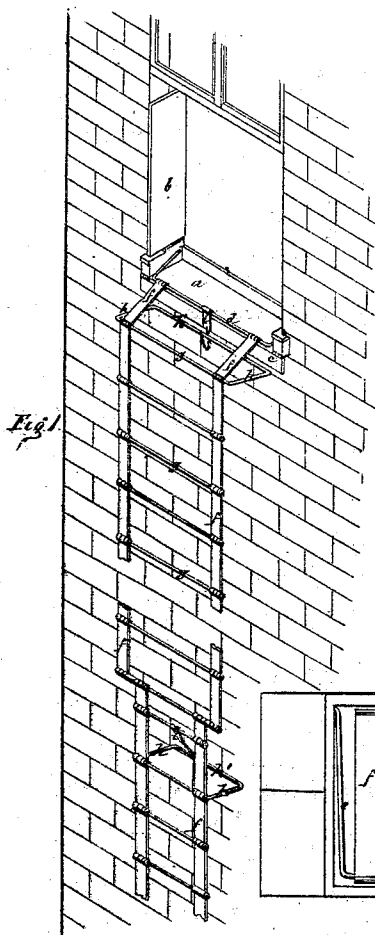


Laynor & Helmberg,

Fire Escape.

No. 112,311.

Patented Apr. 4, 1871.



Witnesses:

H. J. Smith  
Thos. D. D. D.

Inventors.

Theo. Laynor  
Harry Helmberg

PER

Attorneys.

# United States Patent Office.

GEORGE LAYNOR AND HARRY HELMLING, OF BALTIMORE, MARYLAND.

Letters Patent No. 113,311, dated April 4, 1871.

## IMPROVEMENT IN FIRE-ESCAPES.

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

### To all whom it may concern:

Be it known that we, GEORGE LAYNOR and HARRY HELMLING, of Baltimore, in the county of Baltimore and State of Maryland, have invented a new and Improved Window-Sill and Fire-Escape; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a perspective view of the window-sill opened and the ladder suspended;

Figure 2 is a sectional elevation of the window-sill closed and the ladder folded within it; and

Figure 3 is a plan view of the sill closed and ladder folded.

This invention relates to the combination of a window-sill made as a box, and having a cover that turns back, and a side or sides that turn down, with a fire-escape ladder so constructed that it may be folded compactly within the sill, and there stored till wanted for use, when the sill may be opened and the ladder unfolded and let down the side of the building.

The invention also relates to a fire-escape ladder, the rounds of which are connected by flat tie-pieces, which fold down compactly one upon another, when said ladder is constructed in two or more sections, all the rounds and tie-pieces in each section being of the same length, and the rounds and tie-pieces in any one section being of so much less length than the rounds and tie-pieces in the section next above when the ladder is unfolded and suspended that said section may be folded within the next section having longer rounds and tie-pieces, and thus all the sections, when folded within the window-sill, be made to occupy the same area as that required for the section having the longest rounds and tie-pieces.

Referring to the drawing—

*a* is the box window-sill, preferably made of iron, having a hinged cover, *b*, that turns up, and a hinged front side, *c*, that turns down.

*d* is a rod, placed lengthwise within the box-sill *a*, and provided with arms *e*, by which said rod is pivoted in the ends of the box-sill.

*f* are the tie-pieces of the ladder, the uppermost pair of which tie-pieces are jointed upon the rod *d*.

*g* are the rounds, between each pair of which is placed a pair of the tie-pieces in the usual manner, the ends of the tie-pieces being jointed to the rounds.

*h* are arms that extend inward from the uppermost round *g* at right angles thereto, the extremities of said arms being connected by a rod, *k*, parallel to the round.

The rod *k* is connected with the rod *d* by means of a strap, *i*.

The office of the rod *k* and arms *h* is to keep the ladder, when unfolded and dropped, off from the wall of the building; and as many of these rods and arms should be made use of in different parts of the ladder as may be necessary for the purpose.

The ladder is shown as constructed in three different sections, all having rounds and tie-pieces of different lengths.

The second section folds within the first one, the third section within the second, and so on, as shown in figs. 2 and 3, so as to make an extremely compact stowage, and one that requires one-third less space than as though the rounds and tie-pieces were all of the same length.

The rounds and tie-pieces should be made of iron.

In the upper edge of the front piece *c* are mortises *m*, and in the lower side of the cover *b* are dowels *n*, which enter the mortises *m* when the box is closed and thus hold the parts together.

Having thus described our invention,

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

1. The device *h k*, constructed and arranged in connection with the parts *d f g*, as herein shown and described, whereby it is adapted to fold with the ladder into the sill-box, as specified.

2. A fire-escape ladder, constructed in sections, the rounds and tie-pieces of which are of such comparative lengths as to fold one section within another, as set forth.

GEORGE LAYNOR.  
HARRY HELMLING.

Witnesses:

SOLON C. KEMON,  
THOS. D. D. OURAND.