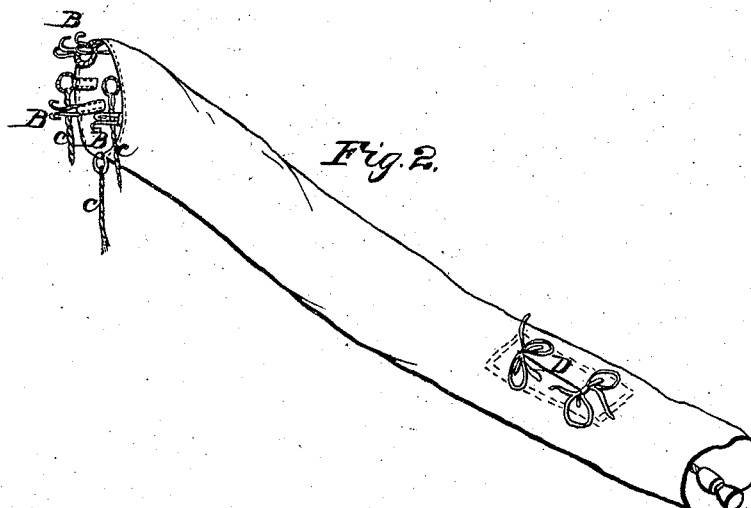
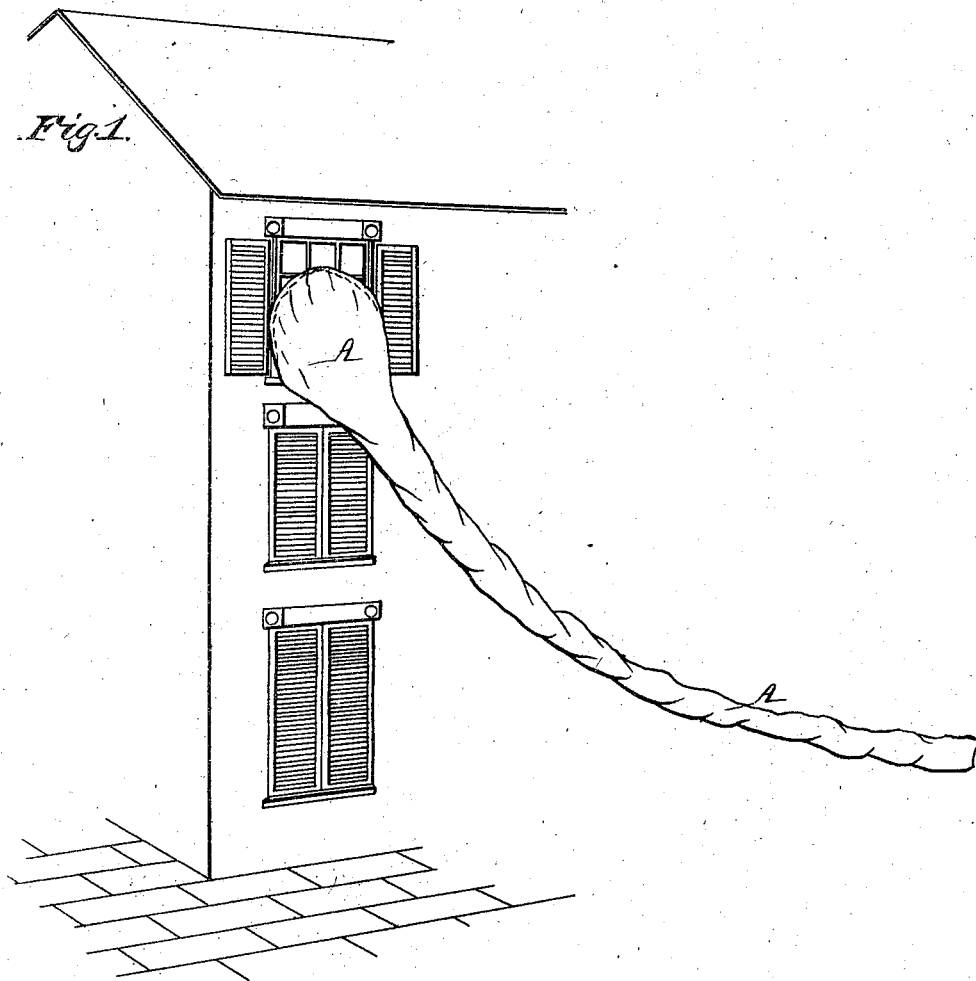


W. W. Van Loan.

Fire Escape.

N^o 4,971.

Patented Feb. 20, 1847.



UNITED STATES PATENT OFFICE.

WILLIAM W. VAN LOAN, OF CATSKILL, NEW YORK.

FIRE-ESCAPE.

Specification of Letters Patent No. 4,971, dated February 20, 1847.

To all whom it may concern:

Be it known that I, W. W. VAN LOAN, of Catskill, in the county of Greene and State of New York, have invented a new and improved manner of constructing fire-escapes, by means of which persons and goods may be passed down from an upper window when it may not be possible to descend by means of the staircase; and I do hereby declare that the following is a full and exact description thereof.

I prepare a long tube, or case, of strong canvas, which may be from two to three feet, more or less, in diameter, and sixty or seventy feet, more or less, in length. This canvas case is to be left open at both its ends, and in using it, one end of it is to be attached to the frame of a window, from which it is desired that persons may escape. A stout loop, or frame, is made to surround this upper opening, and to this loop, or frame, the canvas is firmly attached. The upper end of the canvas case, where it is to be attached to the loop, or frame, is first cut sloping, say to an angle of 40° or 45° so that when the canvas case is drawn across a street, the upper end may fit snugly to the frame, the longer part of the sloped end being, of course, attached to the upper part of the window frame. The loop, or frame, is to be furnished with hooks, or claws, of iron, made sharp so as to catch or hold firmly on to the window frame. It should also have rings and cords by which it may be made fast to a bedstead, or other piece of furniture, or to a cross bar of any kind. The hoop may be made elastic so as to spring in when drawn in at a window, and its expansion itself will in general be sufficient to hold it in place. These devices will enable it to be attached firmly to any window opening. Where the apparatus is kept within a building, there may be hooks, or staples affixed to the frames of the upper windows, to which it may be made fast, but the hooks and cords of which I have spoken, will serve to secure it to any window frame, and these therefore are essential to its use as it is not to be anticipated that persons generally will supply themselves with such an apparatus. Accompanying these should be a small cord sufficiently long to reach up to a third story window, which may by means of a weight attached to one end of it,

be thrown through a window, and enable the persons in a room to draw up the apparatus, should they not be provided with one for the purpose of drawing it up.

When the upper end has been affixed to a window frame, the canvas case is to be drawn across a street, and stretched at such angle with the wall of the house as may be convenient and expedient; where a street is wide persons may enter the case and slide down in it without difficulty or inconvenience. A cord may be allowed to pass down the inside of the case of which persons may lay hold in descending, this, however, is not deemed really necessary. The preferred manner, however, of using this case is to twist it more or less closely, from the bottom to the top, and persons entering it at top may then, should it be desirable, descend perpendicularly by the untwisting of it by those situated in the street. The superiority of this mode of descent to that by means of a ladder, will be very apparent, as women & children who could not reach or use a ladder, have only to enter the upper end of the case, and they may then be made to descend securely within it, without any effort of their own. Ladders, in fact, have rarely been brought into use in such cases, and experience has shown that they are not now anywhere depended upon.

In the accompanying drawing, Figure 1, represents the canvas case A, as attached to the window of a building, and Fig. 2, the same detached therefrom. In Fig. 1, it is shown as twisted, and by the untwisting of it, it will be manifest that persons or things within it may be made to descend as slowly, or as rapidly as may be desired.

B, B, Fig. 2, are the hooks or claws, by means of which the case may be attached to any window frame, the weight of said case itself causing the points of the hooks to hold on to any frame, whatever may be its form.

C, C, are rings and cords which it will be best always to affix to the case, as auxiliary means of securing it in place.

D, D, represents an opening, of which there may be more than one, secured by cords, and which may be useful when the whole length of the case is not required to be employed.

Having thus fully described the manner in which I construct and use my improved

fire escape, what I claim therein as new, and desire to secure by Letters Patent, is—

The employment of a case, or tube of canvas, furnished with hooks, or other devices,
5 by which it may be attached to a window frame, or other convenient support, in the manner, and for the purpose herein fully

made known. The whole structure and operation of said apparatus being substantially the same with that described.

W. W. VAN LOAN.

Witnesses:

MARTIN L. RICKERSON,
SETH COFFIN.