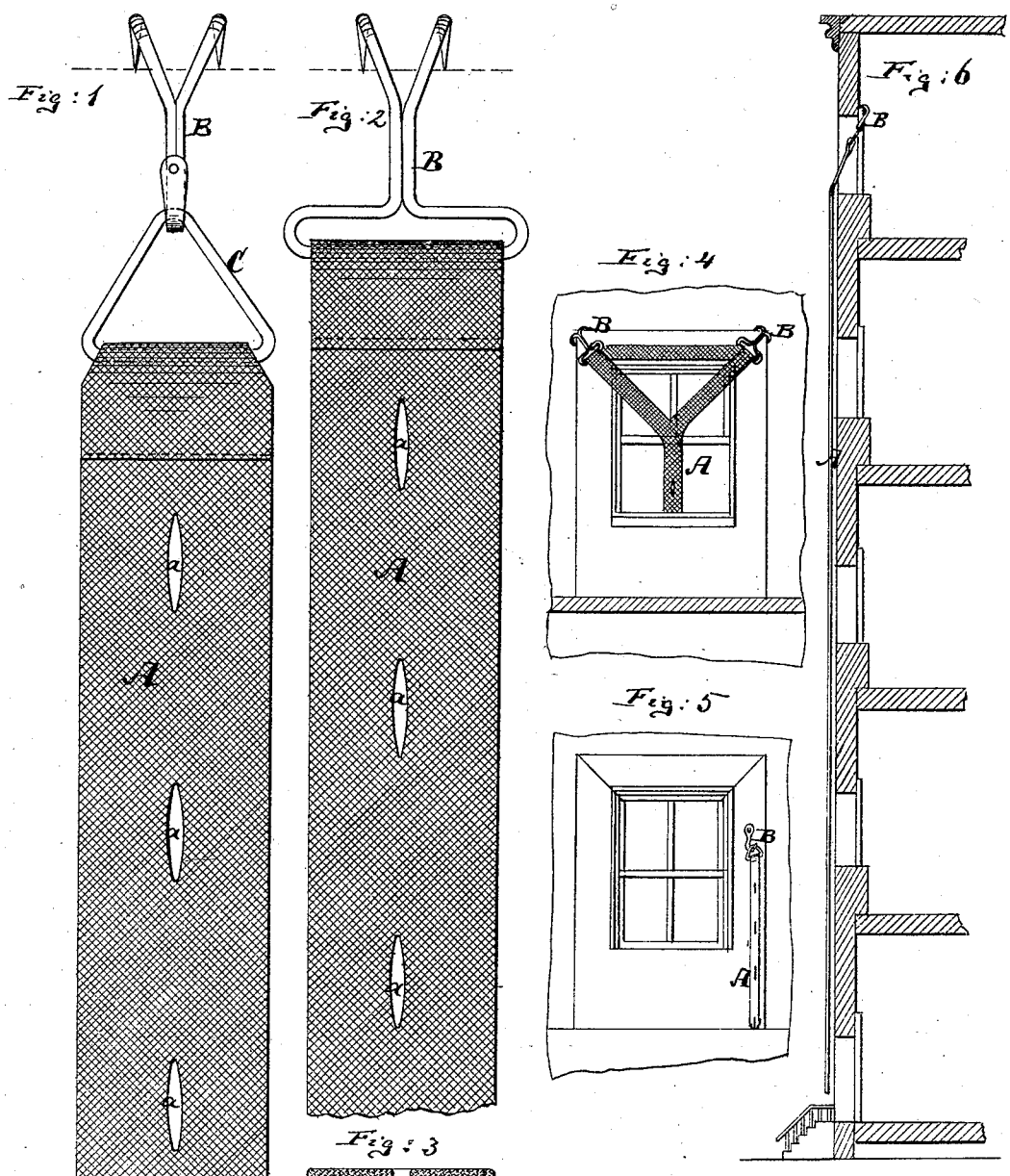
(No Model.)

N. H. BORGFELDT.

FIRE ESCAPE.

No. 256,874. Patented Apr. 25, 1882.



Witnesses
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UNITED STATES PATENT OFFICE.

NICHOLAS H. BORGFELDT, OF NEW YORK, N. Y.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 256,874, dated April 25, 1882.

Application filed January 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS H. BORGFELDT, of New York, in the county and State of New York, have invented an Improved Fire-Escape, of which the following is a specification.

Figure 1 is a face view of my improved fire-escape; Fig. 2, a face view of a modification thereof; Fig. 3, a cross-section of the same; Fig. 4, an inner face view of a window to which said fire-escape is applied; Fig. 5, an inner face view of a window to which said fire-escape is applied in a different manner; and Fig. 6, a vertical cross-section of the wall of a building, showing the fire-escape in position for use.

The object of this invention is to produce for ready use in case of fire a flexible escape that should have all the advantages of a rope, but not share the disadvantages of a rope or rope ladder. The difficulty with rope escapes is that the hand of an inexperienced person will not find a sufficient hold thereon, especially if the escape is hung from a considerable height, and as a consequence persons are liable to slide down on the ropes, and in so doing to burn their hands, the pain being frequently so severe as to cause them to let go their hold and drop to the ground and be hurt. Another difficulty of a rope escape is that in coiling and also in uncoiling it is liable to become twisted or locked into loops or knots, which will interfere with its speedy use when required, and, moreover, in throwing it out of a window it is apt to catch at projections and interfere with its ready and convenient use. Rope ladders, on the other hand, are expensive, and also occupy too much room in the houses where they are to be stored.

My invention consists in making the fire-escape of a broad flat band, which is perforated at proper intervals to permit the introduction through it of the fingers, and, if desired, also of the feet, so as thus to give additional insurance of safety, and enabling even the most unskilled to use the apparatus without difficulty.

In the accompanying drawings, the letter A represents the broad band of my improved fire-escape. This band is made of woven material, such as coarse cotton or wool, or a mixture of both, or of hemp or any other material, but should have a selvage at each edge, so as to prevent it from becoming unraveled. The band A is preferably united at one end with a hook, B, either by interposing an intermediate link, C, as in Fig. 1, which link has a flat base to receive the looped end of the band, or by forming an elongated eye directly on the hook B, as in Fig. 2, or by a rope connection between the hook and band, or, in fact, in any other suitable manner. It is not even necessary that the band should be united with the hook B, as it may be rigidly attached by equivalent means to any part of the casing of the window or other part of the structure from which the escape is to be effected. Various forms of attachment of the band are shown in the drawings. Thus in Fig. 4 is shown a manner of joining the band A with the upper part of a window-casing on the inner side of the wall. In Fig. 5 is shown a manner of joining it to a hook or eye fastened to the inner side of the wall or window-frame. The forms shown in Figs. 1 and 2, employing sharp-pronged hooks, are applicable to any suitable part of a window-frame or wall, and need not here be further described.

For additional security I provide the band A at proper intervals with elongated slits *a*, as shown in Figs. 1 and 2, which slits allow the hand of the party using the band to be wholly or partly thrust through them, and thus afford resting-places for the hand. Some or all of the slits may be made so long or so broad as to accommodate the feet, if desired. The distances apart between the several slits may be regular or not, as may be most advantageous. At the lower end the band may have a broader or longer slit to permit its being looped—that is to say, to permit one end being pulled through the slit, so as to form a loop, in which children may be strapped and let down from above.

It needs no explanation to show that a band, A—such as shown in Figs. 1, 2, and 3—which is wider than thick, (the best proportion of a coarse woven band being about six inches in width, as already stated,) will in the grasp of

the hand be contracted and form a partial support below the contraction, being thus much more convenient to use as a means of escape than an ordinary rope of uniform diameter. The security given by this band is of course greatly enhanced by the slits *a* formed in it.

I claim—

In a fire-escape, the flat band A, having slits *a*, substantially as and for the purpose herein shown and described.

This specification of my invention signed by me this 23d day of January, 1882.

NICHOLAS H. BORGFELDT.

Witnesses:

WILLY G. E. SCHULTZ,

WILLIAM H. C. SMITH.