(No Model.)

J. A. MILLER.

FIRE ESCAPE.

No. 287,560. Patented Oct. 30, 1883.

Fig. 1.

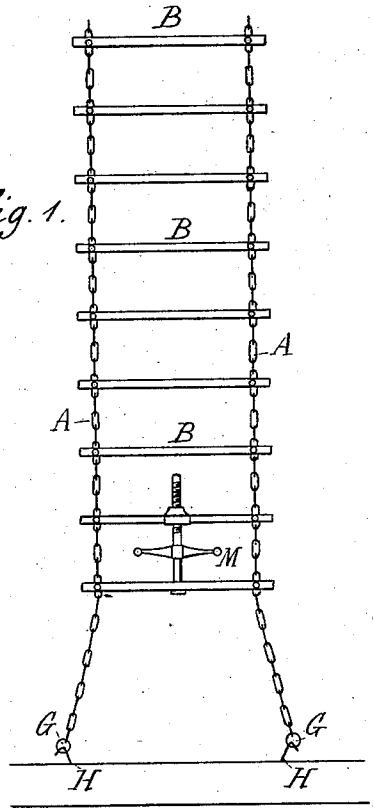


Fig. 2.

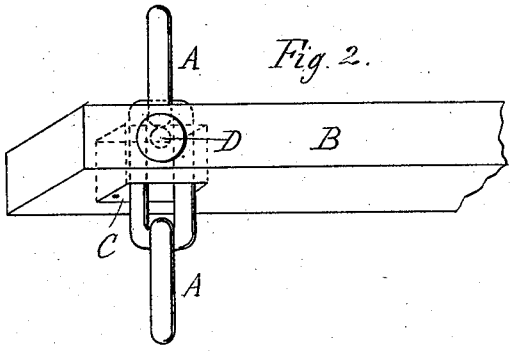


Fig. 3.

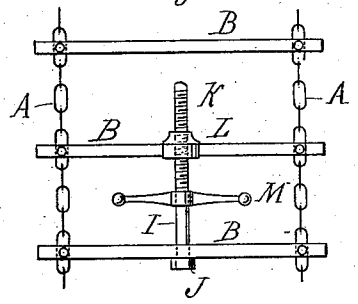


Fig. 4.

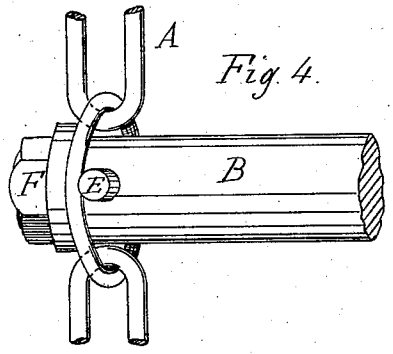
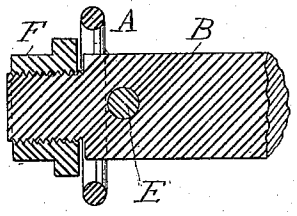


Fig. 5.



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JOSEPH A. MILLER, OF NEW YORK, N. Y.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 287,560, dated October 30, 1883.

Application filed April 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. MILLER, of the city, county, and State of New York, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates, especially, to that class of fire-escapes secured within the building at or near the windows, and arranged to be lowered therefrom in case of fire, and has for its object the production of a device which shall be cheap and simple to construct, not liable to get out of order, and which may be put out of sight when not in use, at the same time requiring but an instant for adjustment to place when required.

My invention consists, essentially, in the combination, with the side chains or ropes, of rungs having pins and clamping-nuts, the two lower rungs being provided with a bolt for drawing the side chains or ropes rigid; and my invention also involves certain other novel and useful combinations or arrangements of parts and peculiarities of construction and operation, all of which will be hereinafter first fully explained, and then pointed out in the claims.

In the drawings, Figure 1 is a view in elevation of my improved fire-escape ladder. Fig. 2 is an enlarged view of one style of rung, showing the method of securing it to the side chains. Fig. 3 is a view in elevation of the tightening mechanism. Fig. 4 is an enlarged view of a round rung, and Fig. 5 is a vertical sectional longitudinal view thereof.

Like letters of reference, wherever they occur, indicate corresponding parts in all the figures.

A are the side chains of the ladder or escape.

B are the rungs, made of any approved material. Fig. 2 illustrates the method of securing the rungs to the side chains, where they are made flat. An oblong perforation, C, is made in each extremity of the rung, and the side chains are passed therethrough, being securely held in place by a bolt or pin, D. Figs. 4 and 5 illustrate a round rung. In this construction a pin, E, is passed through the rung, forming a shoulder against which the chain-link A finds a bearing. The extremity of the rung is screw-threaded, and the whole is secured together by a clamping-nut, F, engaging with said screw-thread.

G are rings attached to the lower extremities of the side chains, and H are hooks affixed to the sidewalk or other convenient point beneath the window.

Between the two lower rungs of the ladder is placed a bolt, I, having a head, J, and screw-thread K. The lower end of the bolt passes through a perforation in the lowermost rung, and the screw-threaded end of the bolt engages with a correspondingly screw-threaded enlargement, L, in the other rung. M is a lever-handle attached to bolt I, for turning the same when the side chains are attached to the hooks H and it is desired to tighten the said chains, rendering the ladder rigid.

Having now fully described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. In a fire-escape of the character herein specified, the combination, with the side chains, A, of the rungs B, having pins E and clamping-nuts F, substantially as shown and described.

2. In a fire-escape of the character herein specified, the combination, with the two lower rungs of the ladder, secured to the side chains, as set forth, of the screw-threaded bolt I, having head J and handle M, said bolt being adapted and arranged to draw the side chains taut, substantially as shown and described.

3. Side chains, A, rungs B, bolt I, bearing a handle, M, rings G, and hooks H, the whole combined and arranged to operate substantially as shown and described.

JOSEPH A. MILLER.

Witnesses:

GEORGE W. MORRILL,

ALONZO G. CHICHESTER.