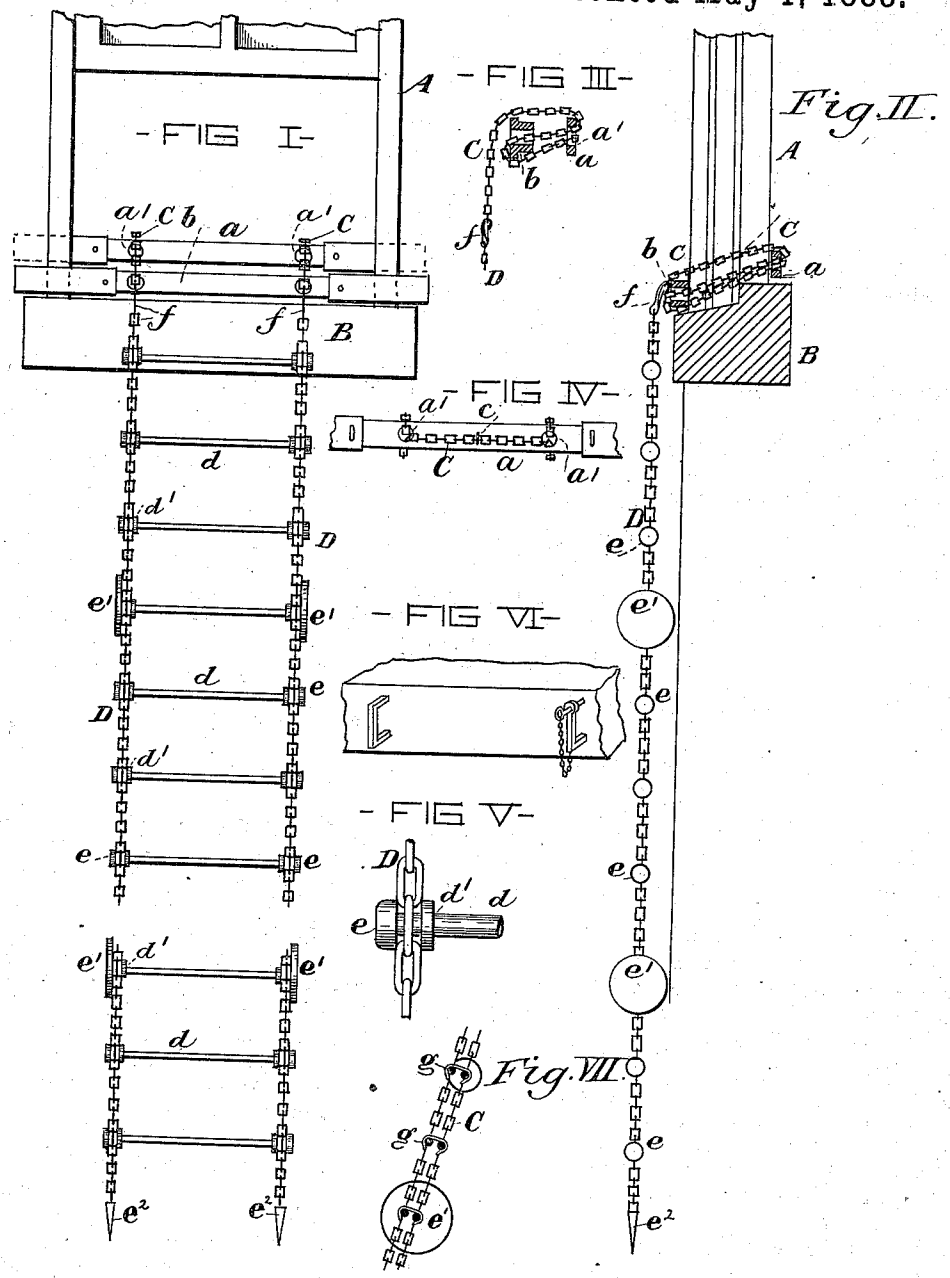
(No Model.)

J. W. FREY.

FIRE ESCAPE LADDER.

No. 382,150. Patented May 1, 1888.



WITNESSES -

Dan'l. Fisher.

Frank Hodges.

- INVENTOR -

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attys.

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UNITED STATES PATENT OFFICE.

JOHN WESLEY FREY, OF BALTIMORE, MARYLAND.

FIRE-ESCAPE LADDER.

SPECIFICATION forming part of Letters Patent No. 382,150, dated May 1, 1888.

Application filed August 31, 1887. Serial No. 248,336. (No model.)

To all whom it may concern:

Be it known that I, JOHN WESLEY FREY, of Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Fire-Escape Ladders, of which the following is a specification.

In the accompanying drawings, Figure I is a front view of my invention. Fig. II shows a sectional elevation of a part of a window and my invention applied thereto. Figs. III, IV, and V are details. Figs. VI and VII show modifications.

Similar letters of reference indicate similar parts in the respective figures.

A is a window-frame, of which B is the sill. A bar, *a*, perforated in two places at *a'*, is placed behind the window-frame A within the apartment. The plate *a* is made extensible to suit differently sized windows. A similar plate, *b*, is placed across the outside of the frame of the window, and is also made extensible. The two ends of a chain or rope, C, having been placed through the plate *a*, so as to equally divide the length of the chain, the chain C is fastened to the plate *a* in a suitable manner by a staple, *c*, as shown in Fig. IV. The chain is then passed under and over the plate *b*, which is provided with lugs to keep its front surface the requisite distance from the house. The chain is then passed back and through the first plate, *a*, and over it and the plate *b* through the window, where the ends of the chain rest, ready for the ladder to be hooked thereto. The ladder itself is made up of two chains, D, and rounds of gas-pipe *d*. The rounds are each provided with collars *d'*, against which the chains rest, and which keep them the proper distance apart. The rounds are secured to the chains by caps *e*, screwed or otherwise attached thereto. Each end of every third or fourth round is provided with a cap, *e'*, of larger diameter than those marked *e*, the object being to keep the chain from the side of the house. The ladder is hooked to the chain C by hooks *f*. The ends of the chains are provided with pointed ends or stakes e^2, which may be driven into the ground to secure the ladder.

It will be seen, particularly from Fig. III and from the description above given, that any weight on the ladder will tend to force the plate *b* toward the window-frame, and that said plate *b*, with the back plate, *a*, will form a clamp.

In Fig. VI are shown means whereby a fixed fire-escape may be employed. On the sill is a staple, through which one end of the plate *a* may be passed, a hook and bolt at the other end of the sill securing the opposite end of said plate.

In Fig. VII a further modification is shown. Here double chains are used coupled together by staples *g*, and the caps *e'* increase in diameter as the ladder descends, the caps thus arranged causing the ladder to stand from the building in an inclined position. This construction is mainly intended for use at factories having female operatives.

Having described my invention, I claim—

1. The combination of the plates *a* and *b* with the chain C, substantially as set forth.

2. The combination of the perforated plates *a*, the chain C, secured thereto, and the perforated plate *b*, under, through, and over which the chain is passed, whereby as weight is brought upon the chain a clamping action is produced, substantially as set forth.

3. The double chains and staples *g*, combined with caps *e'*, increasing in diameter, as set forth.

In testimony whereof I have hereunto set my hand and seal.

JOHN WESLEY FREY. [L. S.]

Witnesses:

DANL. FISHER,

FRANK HODGES.