(No Model.)

# T. MILLER.

## FIRE ESCAPE LADDER.

No. 265,531. Patented Oct. 3, 1882.

Fig. 1.

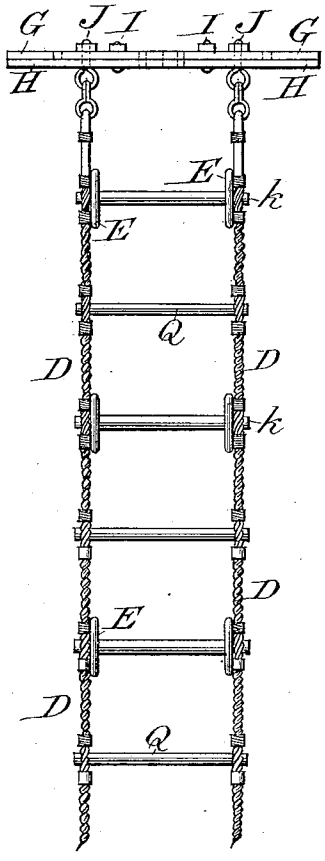



Fig. 2.

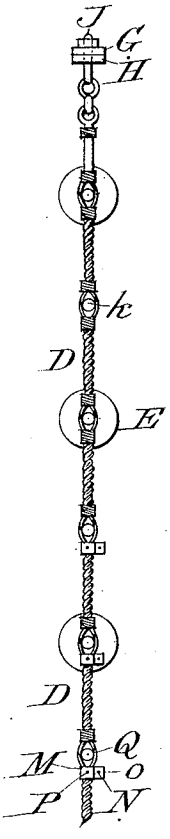



Fig. 3.

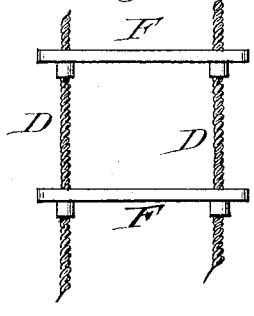
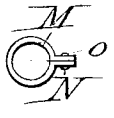



Fig. 4.




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# UNITED STATES PATENT OFFICE.

THOMAS MILLER, OF JERSEY CITY, NEW JERSEY.

## FIRE-ESCAPE LADDER.

SPECIFICATION forming part of Letters Patent No. 265,531, dated October 3, 1882.

Application filed March 31, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS MILLER, of Jersey City, Hudson county, New Jersey, have invented a new and useful Improvement in Fire-Escape Ladders, of which the following is a specification.

My improvement in fire-escape ladders consists of an extension-bar attachment by which to suspend the ladder from a window readily; and it also consists of an improved method of fastening the steps to the ropes, as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a front elevation of a portion of a ladder with an extensible bar for fastening the ladder in a window. Fig. 2 is a side elevation of Fig. 1. Fig. 3 is a front elevation of a short section of ladder, showing my improved method of fastening the strips to the ropes. Fig. 4 is a detail of the construction shown in Figs. 1 and 2.

For suspending a fire-escape ladder consisting of ropes D and steps F from a window, I provide an extensible suspending-bar consisting of one long bar, G, and two short ones, H, bolted together by bolts I, and also by bolts J, the latter being employed to attach the ladder to said bar, the said long and short bars being so connected that the short bars may be shifted along the other to extend or shorten suitably to be fitted readily within the jambs of windows of different widths and rest against the window-frames for suspending the ladder. The arrangement for the adjustment may consist of a series of holes in the short bars, into which the bolts may be shifted; or slots may be made in said bars, so that they can be shifted along as desired.

I propose to make the steps F of suitable width for serving to project so far from the wall as to enable good foothold to be had, and will fit the ropes D through the steps and secure them against slipping down on the rope by a metal clip, M, fitted around the rope snugly and then drawn up tightly on the rope by rivets or bolts N in the ears O of the clip, and also by a rivet, P, through the clip and the rope.

What I claim, and desire to secure by Letters Patent, is—

1. The combination, with a fire-ladder, of the extensible cross-bar G, arranged for suspending the ladder from a window, substantially as described.

2. The combination, with the sides D and the steps F of a fire-ladder, of metal clips M, fitted around and riveted together on the ropes through ears O, and also through the rope, substantially as described.

THOMAS MILLER.

Witnesses:
W. J. MORGAN,
S. H. MORGAN.