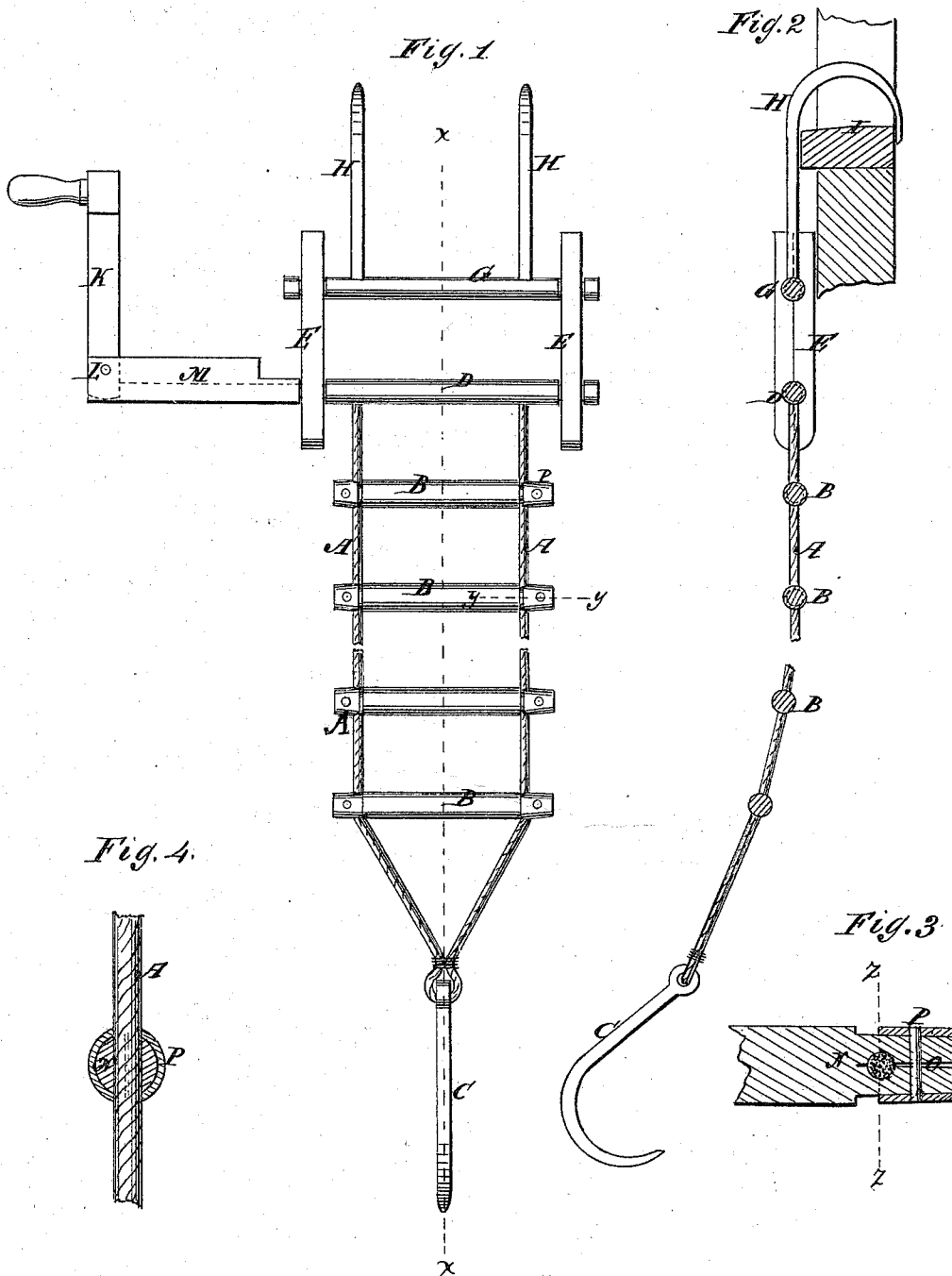


W. W. PARSONS.
Fire-Escape Ladders.

No. 142,409.

Patented September 2, 1873.



Witnesses:

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UNITED STATES PATENT OFFICE.

WALTER W. PARSONS, OF STANSTEAD, CANADA.

IMPROVEMENT IN FIRE-ESCAPE LADDERS.

Specification forming part of Letters Patent No. **142,409**, dated September 2, 1873; application filed July 19, 1873.

To all whom it may concern:

Be it known that I, WALTER W. PARSONS, of Stanstead, Province of Quebec, Canada, have invented a new and Improved Fire-Escape, of which the following is a specification:

The invention consists in the improvement of fire-escape ladders, as hereinafter described and pointed out in claim, to wit, of a novel mode of fastening the bars to the ropes by which they are suspended.

Figure 1 is a front elevation of my improved fire-escape ladder. Fig. 2 is a sectional elevation on the line *x x* of Fig. 1. Fig. 3 is an enlarged detail sectional view of the bar and mode of fastening taken on the line *y y*, Fig. 1; and Fig. 4 is a section on the line *z z* of Fig. 3.

Similar letters of reference indicate corresponding parts.

A represents a pair of suspending-ropes, with cross-bars B at intervals, constituting a rope ladder. At the lower end of the ladder a hook, C, is attached for fastening it to the curb-stone or any other fixed object to prevent it from swinging. At the upper end the ropes are connected to a roller, D, which is mounted in a frame, E, so as to revolve, and has a crank, F, for turning it by hand to wind the ladder on or off. The roller D constitutes one of the bars of the ladder, and another roller, G, of the frame constitutes another bar; and this roller has hooks H, by which to attach the ladder to the window-sill I or other suitable part of the building, in the manner indicated

in Fig. 2. The crank K is jointed to the roller D, as shown at L, and the projecting part of the roller is grooved, as indicated by the dotted line M, so that the crank can be folded down in the roller compactly for storing the ladder.

For securing the cross-bars B to the ropes cheaply, I have a hole, N, bored through them near each end, and a slot, O, extending from the ends to said holes, so that the latter can be contracted a little to bind the rope so as to be held fast; and I drive slightly-conical ferrules P on the bars, which are slightly tapered from the holes to the ends to so bind the bars upon the ropes, whereby the said bars will be firmly held in their places. This mode of fastening the bars is very effective, and at the same time simple and cheap.

These fire-escape ladders can be constructed cheaply. They can also be stored in a small space in a room, and they can be readily adjusted when required for use.

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

The method of fastening the bars to the ropes by the holes N, slits O, and tapering ferrules P, substantially as specified.

WALTER W. PARSONS.

Witnesses:

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