(No Model.)

W. A. KING.

FIRE ESCAPE.

No. 285,756. Patented Sept. 25, 1883.

Fig. 1.

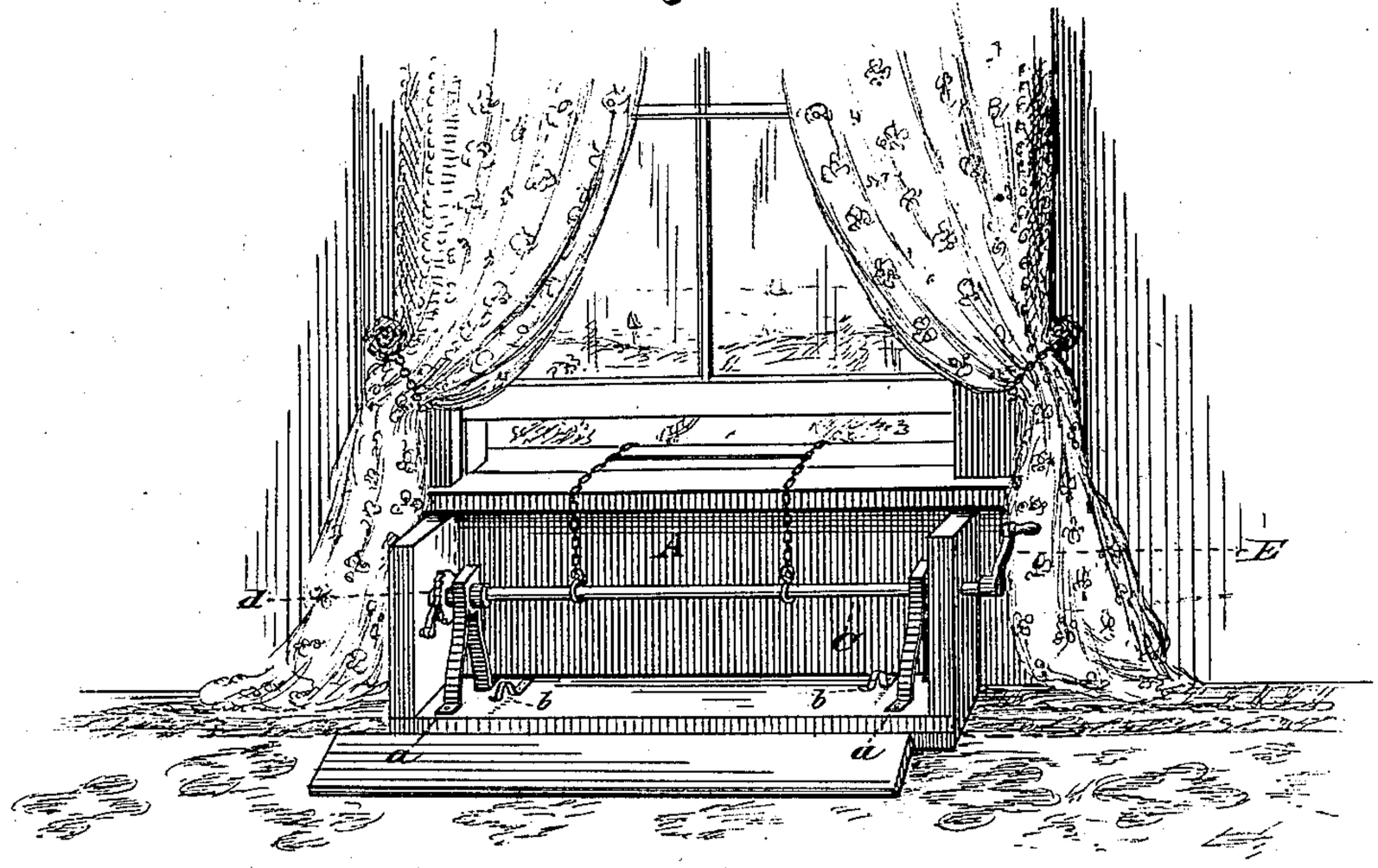


Fig. 2.

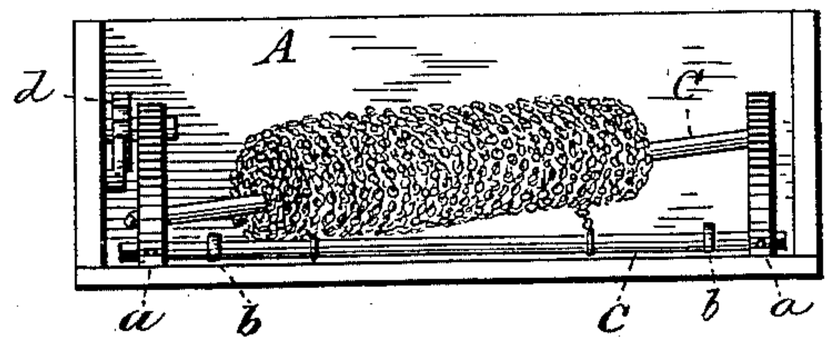
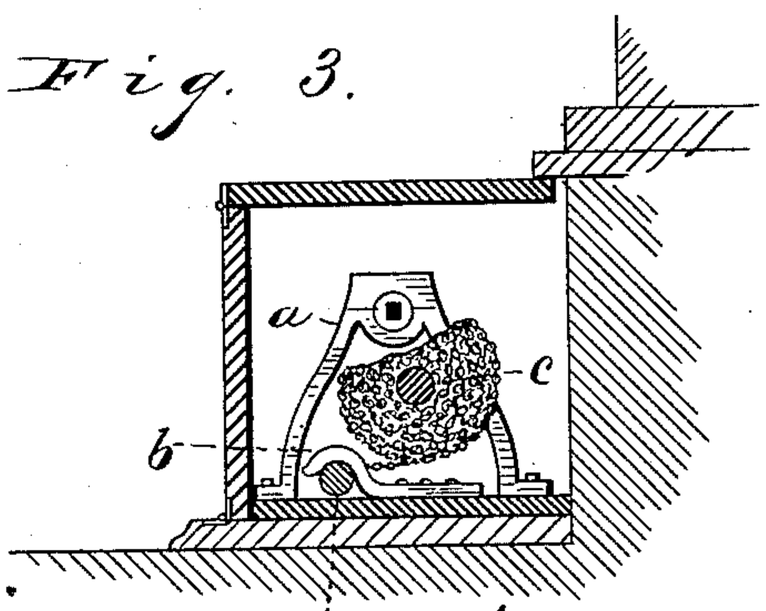


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM A. KING, OF CLEVELAND, OHIO.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 285,756, dated September 25, 1883.

Application filed April 25, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. KING, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Fire-Escapes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in fire-escapes; and it consists in certain features of construction and in combination of parts hereinafter described, and pointed out in the claim.

The object of my invention is to furnish a fire-escape so simple in operation that any one can use it, and that will be convenient, durable, and always in order, and so cheap that it will be within the reach of all who may desire it.

In the drawings, Figure 1 represents an internal view of a room provided with my improved fire-escape, with the ladder on the outside, suspended from the window, and with the cross-bar and crank in position for winding up. Fig. 2 represents the ladder wound up and stored in its box ready for use. Fig. 3 is an end view with the end of the box removed.

A represents a box, secured under a window, in which a flexible ladder is stored when not in use, and the brackets *a*, for winding up the ladder, and also the hooks *b*, for securing the end of the ladder in a suitable manner for the use for which it is designed. The ladder itself may be made in a variety of forms and of different materials, the essential qualities being lightness, strength, flexibility, and durability. A rope ladder would do well were it not so perishable and so liable to accident. I prefer a ladder made of some strong metal not liable to corrode—such, for instance, as galvanized wrought iron or steel. The sides might be of small wire cable or light chains, and the steps of wires, rods, or chains, as may be found most desirable.

To each end of the ladder is attached a bar, C. These two bars are alike, and have their ends squared in a suitable manner for engaging a crank.

D is a small ratchet-wheel provided with a pawl and supported, as shown, with the right-hand trunnion extending through the bracket, and provided in the center with a square socket, that will engage one end of a bar, C, as shown in Fig. 1. The other end of the bar, as is there shown, is supported by the other bracket, and extends through the right-hand end of the box, and has at this end a crank, E, for winding up the ladder. The ratchet-wheel and pawl are so arranged as to prevent the ladder from unwinding. When the ladder is wound up, the rod on which it is wound is taken from the brackets, and the bundle of ladder laid in the box, as shown in Fig. 2, the rod at the other end of the ladder having first been placed under the hooks *b*, as shown in Figs. 2 and 3. In this position it is left ready for use and the box closed up. All that it is necessary to do to prepare it for use is to open the box and throw the roll or bundle of ladder out of the window. The ladder will unroll itself, while one end will remain fastened to the hooks *b*. It will be seen that no time is lost in unrolling the ladder. If a person were quick enough, he could commence descending the ladder before the other end had reached the ground.

As both ends of each of the rods C are squared up in like manner, either end of either rod will fit the socket in the ratchet-wheel or the socket of the crank. From the peculiar construction of the device it would seem impossible that a mistake should occur in using it.

The box may be ornamented as desired; and it would be better to have the name "Fire-Escape" and the necessary directions for using it conspicuously displayed on the box. In high buildings—such as factories, where the ladder would be of considerable weight, and when no special regard to looks is necessary—the roll or bundle of ladder may be left on the window-sill to save lifting it from the box.

What I claim is—

In a fire-escape, the combination, with the box located on the inside of a building, and

provided with brackets *a* and hooks *b*, of the flexible ladder, the rods C, secured to each end thereof, and having their ends squared, the crank and ratchet having a socketed trunnion to receive the bars, the said bars being adapted to be removed from the bracket and to be placed under the loops, whereby the ladder is alternately held and wound up, substantially as shown and described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM A. KING.

Witnesses:
CHAS. H. DORER,
ALBERT E. LYNCH.