A. WARTH.

FIRE-ESCAPE.

No. 192,548. Patented June 26, 1877.

Fig. 1.

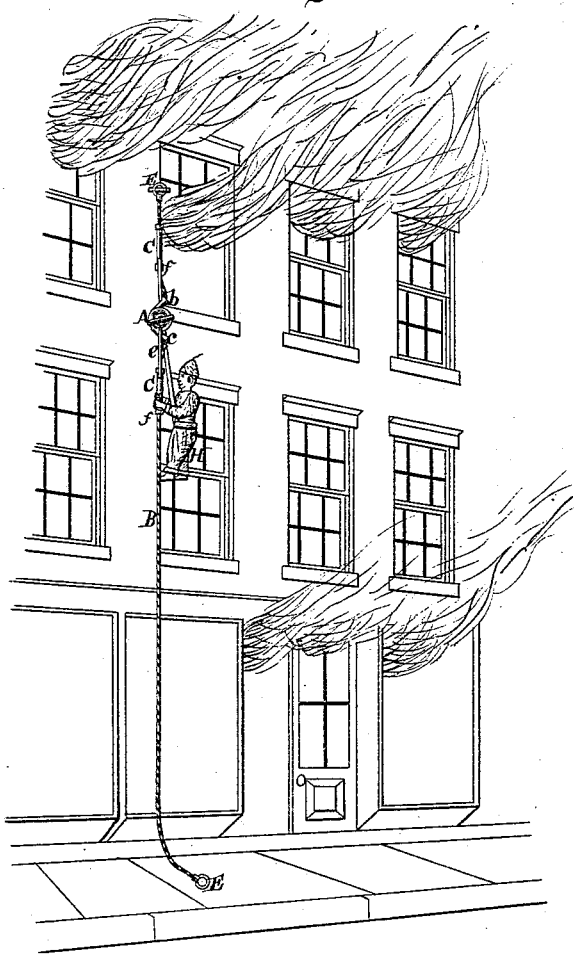

Fig. 2.

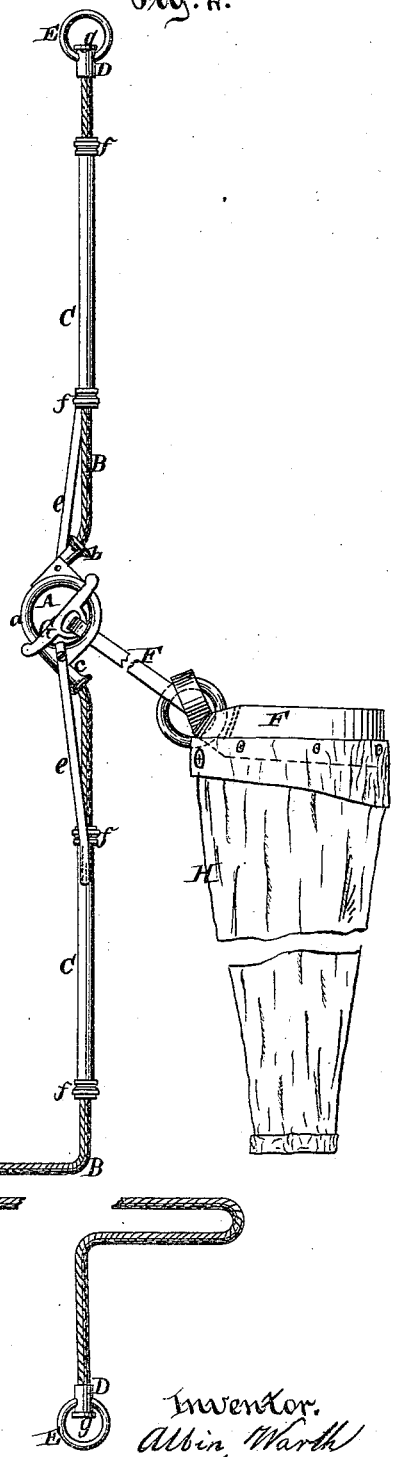

Fig. 3.

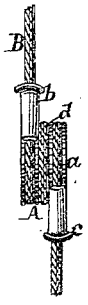

Fig. 4.

Witnesses
Hugo Bueggemann
Robt E. Miller.

Inventor.
Albin Warth
by
Van Santvoord & Lauff.
Attys

UNITED STATES PATENT OFFICE.

ALBIN WARTH, OF STAPLETON, NEW YORK.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **192,548**, dated June 26, 1877; application filed May 16, 1877.

To all whom it may concern:

Be it known that I, ALBIN WARTH, of Stapleton, in the county of Richmond and State of New York, have invented a new and improved Fire-Escape, which invention is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a perspective view of my fire-escape when the same is in operation. Fig. 2 is a side view of the same on a larger scale than the previous figure. Fig. 3 is a face view of the same. Fig. 4 is a section of the end of the rope, showing its connection with a ring or hook.

Similar letters indicate corresponding parts.

This invention consists in the combination, with a rope and with a body-belt, of a flanged friction-ring, provided with two spouts for guiding said rope to and from said ring, so that, by passing a cross-bar secured to the body-belt through said ring, a simple, durable, and firm connection between these parts is produced, and by securing the rope at its upper end to a window-frame or any other part of a building, and winding said rope two or three times round the friction-ring, a person secured to the body-belt is enabled to descend to the ground with perfect safety. With the body-belt and its cross-bar, which serves to fasten it to the friction-ring, are combined a pair of drawers, so that in case a person is suddenly aroused from sleep by the cry of fire, he or she can protect the limbs and body from exposure in escaping from the burning building. With the rope is combined a tapering socket, carrying a ring or hook, the end of the rope being formed into a knot, which is drawn into the large end of said socket and protected by a screw-plug, so that a firm and durable connection is effected between the ring or hook and the rope.

With the friction-ring and the rope is combined a flexible sleeve, which embraces the rope and serves to protect the hand of the person descending by means of my apparatus.

In the drawing, the letter A designates a ring, which is provided with two flanges, *a a*, projecting from its edges, and with two spouts, *b c*, extending from opposite sides, one of said spouts serving to guide the rope B to and the other to guide it from the ring. The face of the ring A, between the side flanges *a a*, is wide enough to allow of winding the rope two or three times around said ring, and in order to prevent the several coils of the rope from rubbing against each other, I have provided the ring with a spiral separating-flange, *d*.

With the rope B is combined a flexible sleeve, C, which is connected to the ring A by a strap, *e*, so that the hand of the person using my fire-escape is protected against friction. In the example represented by the drawing, I have shown two such hand-protecting sleeves, one on each side of the friction-ring A, so that the apparatus can be reversed and used with either end of the rope up. This protecting-sleeve is by preference made of leather, and its ends are protected by metallic thimbles *f*, which are composed of two parts each—one part to embrace the end of the sleeve, and the other part to fit into it and to be connected to the first part by a screw-thread.

The ends of the rope are secured each in a tapering metallic socket, D, to which is firmly connected a ring or hook, E, and in order to retain the rope firmly in the socket I form its end into a knot, and draw this knot into the wide end of the socket, which is afterward closed by a screw-plug, *g*. The ring or hook E serves to secure the end of the rope to a strong bolt or hook secured for this purpose in the window-frames of a building; or, if no such bolt is provided, the rope may be secured to a bed-post or any other part in the interior of the building.

The friction-ring A is by preference cast all in one piece with its flanges and spouts, and with this ring is combined a body-belt, F, which is provided with a locking-bar, G, so that when the belt has been passed round the body of a person, it can readily be connected to the ring A by passing the locking-bar through said ring. With the body-belt are combined a pair of drawers, H, which are fastened to the same by buttons or other suitable fastenings, and which serve to protect the limbs and body of the person using my apparatus against exposure in case such person is compelled to escape without getting time for dressing.

After the body-belt has been properly secured to the person intending to escape, and

to the friction-ring, such person can descend by taking hold with one hand of the protecting-sleeve and allowing the rope to slide through this sleeve with more or less speed. After one person has descended and been released from the body-belt, another person can draw up the rope, reverse the same, and make his or her descent without loss of time. It must be remarked that the flexible protecting-sleeve C can be combined with another friction device—such, for instance, as that shown in my patent No. 28,525.

This apparatus is very simple in its construction, it can be operated by the most timid person, it is not liable to get out of order, and it can be stored away in a small space, so that it can always be found in case of need.

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

1. The tubular ring A, having spouts *b* and *c*, in combination with the rope B, passing through the tubular ring, and the belt F, having a locking-bar, G, adapted to pass through the ring A, substantially as shown and described.

2. The combination, with the body-belt F, its locking-bar G, the rope B, and the friction-ring A, of a pair of drawers, H, substantially as and for the purpose set forth.

3. The combination of the ring E, having a tapering socket, D, and removable cap *g*, of the rope B, knotted and inserted through the tapering socket, and retained by the removable cap, substantially as described.

4. The combination of the flexible protecting-sleeve C, with the rope B, the tubular ring A, having the spouts *b* and *c*, and a belt for supporting the body, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 15th day of May, 1877.

ALBIN WARTH. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.