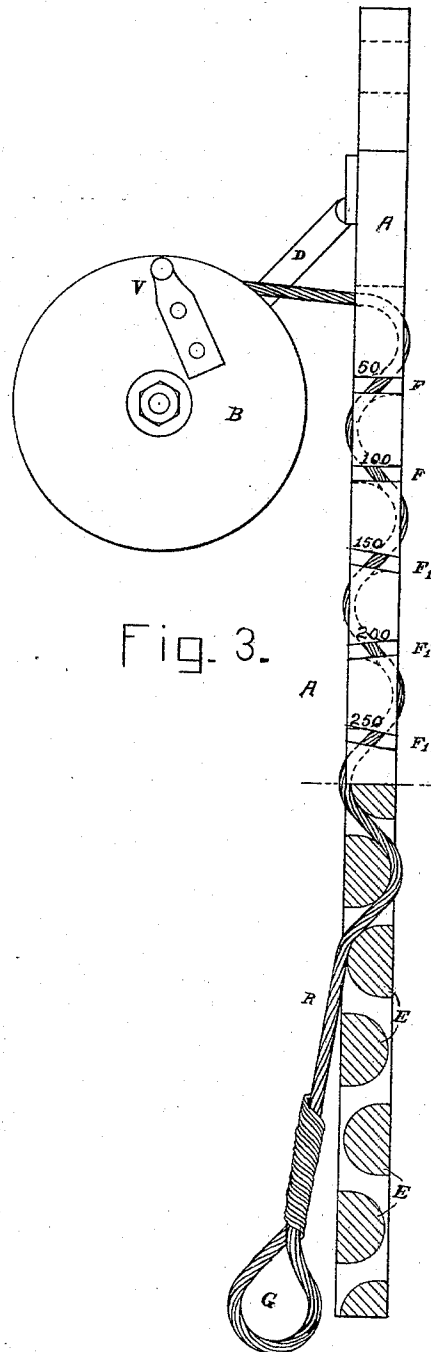
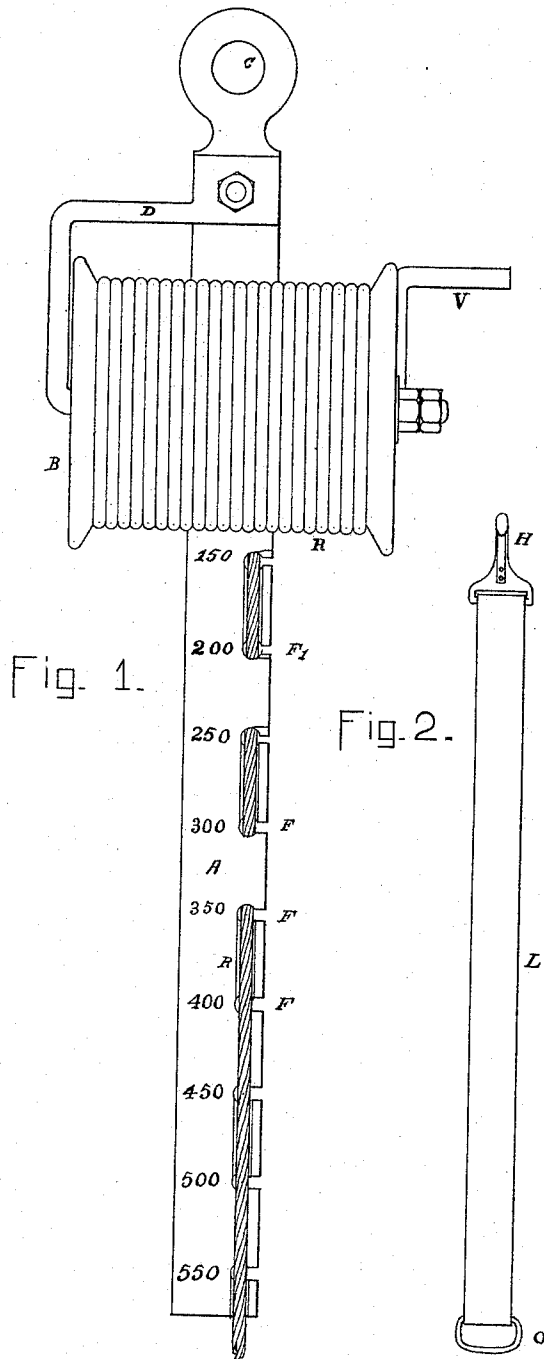


(No Model.)

I. WALGREN & F. HAGLUND.
FIRE ESCAPE.

No. 496,923.

Patented May 9, 1893.



WITNESSES

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UNITED STATES PATENT OFFICE.

ISIDORE WALGREN AND FRANK HAGLUND, OF SEATTLE, WASHINGTON.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 496,923, dated May 9, 1893.

Application filed April 4, 1892. Serial No. 427,597. (No model.)

To all whom it may concern:

Be it known that we, ISIDORE WALGREN, a subject of the King of Sweden and Norway, and FRANK HAGLUND, a citizen of the United States, both residing at Seattle, in the county of King and State of Washington, have invented a new and useful Improvement in Fire-Escapes, of which the following is a specification, reference being had to the drawings accompanying, which form a part thereof.

Our fire escape consists of a metallic bar having mounted thereon a spool carrying a small wire rope and having a series of holes through which the rope is passed back and forth from one side to the other, thus causing sufficient friction to make the descent gradual. For convenience of adjustment these holes are connected with the edge by slots so that the rope may be taken out of or placed in as many as may be desired.

Figures 1 and 3 are respectively a front and side view of our device, a portion of Fig. 3 being sectional on the center line of the holes. Fig. 2 is a view on a smaller scale than the others of a belt to be used in connection with our fire escape.

The bar A is made of metal and near one edge is a series of holes through which the wire rope is to be laced as shown in Fig. 3. The first or upper one of these holes is preferably without connection with the edge but the others are all connected with the edge by a slot as F, and F'. These may be square across as are F, or at an angle as F'. The latter form is a little more certain of retaining the rope in its place. That portion of the bar between the holes is rounded as shown in Fig. 3, to make a smooth surface for the rope to slide over. The spool B, carries such a length of this wire rope as may be desired and is mounted so as to turn freely upon an arm D which is attached to the bar A. The belt L, has at one end a hook H and at the other a ring O. The belt is placed around the body under the arms, the hook H and the end of the belt being passed through the ring O, and the hook inserted in the loop G in the end of the wire rope. The friction of the wire rope as it passes through the holes will prevent a too sudden descent. The greater the number of holes it passes through the greater will be

the weight necessary to unwind the rope from the spool.

It can be found by experiment just the weight which will give the proper velocity of descent for each one of the holes. This figure is then stamped either upon the face or side of the bar adjacent to the hole. The device can by means of the notches connecting the holes with the edge be very quickly adjusted by weaving the rope through as many holes as may be necessary for the weight of the person using it. The device is sufficiently strong that it may be used by more than one person at a time.

The upper end of the bar A, has a hole which is designed to be placed over a hook which is fastened in some convenient place near the window. If it is desired to have some means of regulating the speed while making the descent this can be done by attaching the loop G in the end of the wire cable to a hook at the side of the window or in any other convenient manner and attaching the belt to the opposite end of the bar, which will then descend with the person and give an opportunity for regulation. If there are more persons in the room than can descend at one trip, those remaining in the room after the first trip can remove the wire from all the holes except the first, and by means of the crank V, wind up the wire, readjust the rope in the holes and use it again. The rope or cable used is a small wire cable composed of as many strands as can be conveniently had. The kind sometimes used for clothes lines is very good. The more wires there are the size being the same the more flexible it will be and the easier it can be handled.

A rope made of manila, hemp or other similar material might be used but wire is preferable as it will not burn, and moreover does not occupy as much space as would a rope of any other material of the same strength.

Having thus described our invention, what we claim, and desire to cover by Letters Patent, is—

1. A fire escape comprising a bar having a row of holes through it, a spool mounted upon the bar, a rope or wire cable carried upon said spool and passed back and forth alternately through said holes in the bar, and an eye or

hook for attaching the bar to the building, substantially as shown and described.

2. A fire escape comprising a bar having a row of holes through it near one edge, slots
5 connecting these holes with the edge, an eye, hook or other means for attaching the bar to the building, a spool mounted upon the bar, a crank for turning the same, and a rope or cable carried by the spool and passing through
10 the holes in the bar, substantially as shown and described.

3. A fire escape comprising a bar having a row of holes through it near one edge, slots
15 connecting these holes with the edge, an eye or hook on one end of the bar, a spool with crank attached mounted upon one end of the bar, and a rope or cable carried by said spool and passing back and forth alternately through the holes in the bar, with a loop in
20 the end of the rope, and a belt with a hook or other device for attaching it to the fire escape, substantially as shown and described.

4. A fire escape comprising a bar having a row of holes through it near one edge, slots

connecting these holes with the edge, an eye 25 or hook on one end of the bar, a spool with a crank attached mounted upon one end of the bar, and a rope or cable carried by said spool and passing back and forth alternately through the holes in the bar, a scale marked 30 upon the bar adjacent to the holes, a loop in the end of the rope, and a belt having a hook or other device to attach it to the fire escape, substantially as shown and described.

5. A fire escape comprising a bar having a 35 row of holes through it near one edge, slots connecting these holes with the outside, a spool mounted on the bar, a rope carried thereby and passing through the holes, and a scale consisting of figures placed adjacent to each 40 hole to indicate the adjustment for different weights, substantially as shown and described.

ISIDORE WALGREN.
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Witnesses:

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