

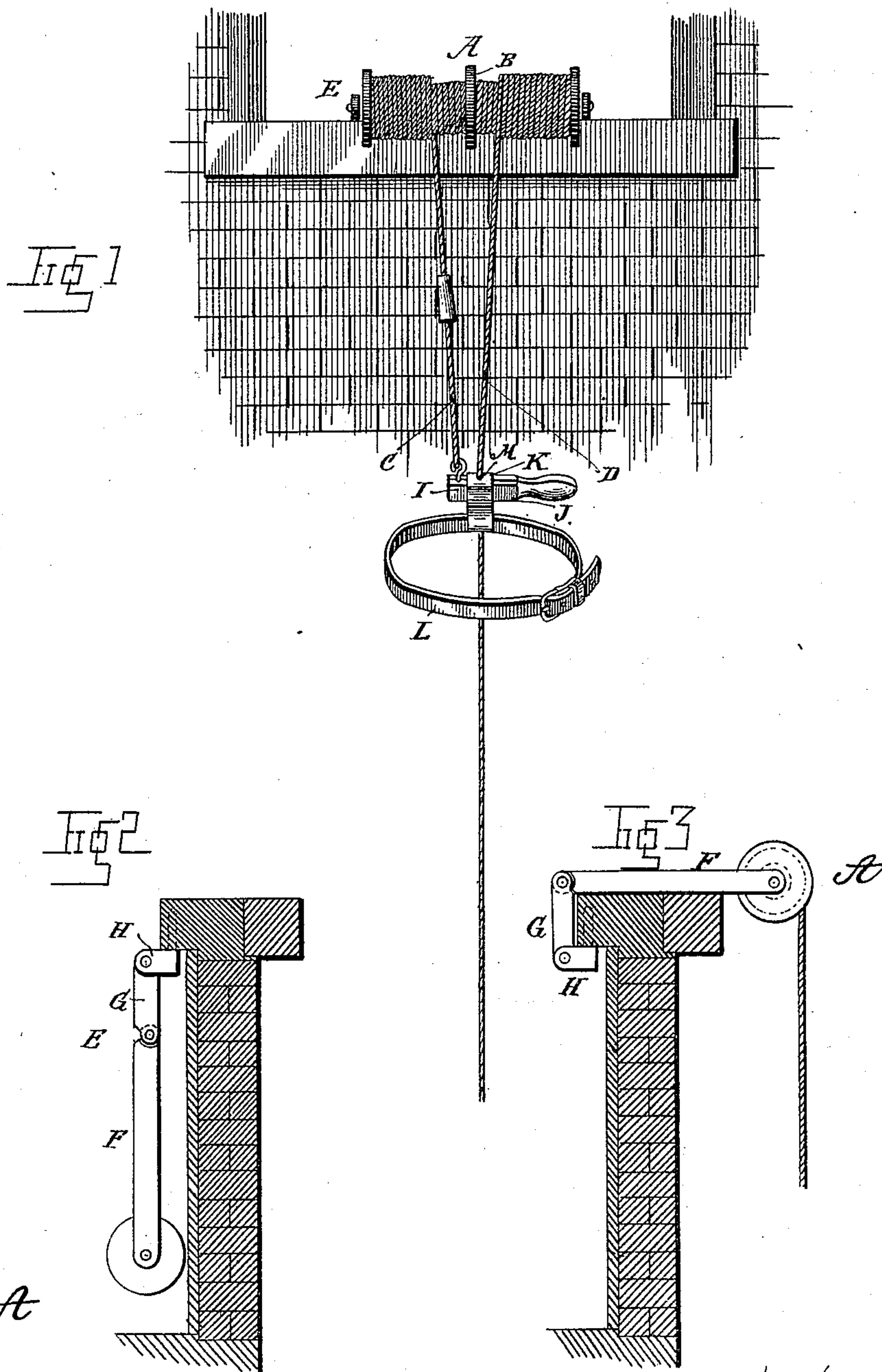
(No Model.)

F. R. WOODWARD.

FIRE ESCAPE.

No. 287,492.

Patented Oct. 30, 1883.



WITNESSES:

Wm. S. Dieterich
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UNITED STATES PATENT OFFICE.

FRANK R. WOODWARD, OF HILL, NEW HAMPSHIRE.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 287,492, dated October 30, 1883.

Application filed February 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANK R. WOODWARD, of Hill, in the county of Merrimack and State of New Hampshire, have invented certain new and useful Improvements in Fire-Escapes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a front elevation, partly in perspective, of my improved fire-escape attached to a house and in working order. Fig. 2 is a side view of the suspending-brackets when pending inside the window-sill; and Fig. 3 is a similar view of the same when resting upon the sill, ready for use.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to friction fire-escapes; and it consists in the improved construction and combination of parts of an escape adapted to hang suspended inside the window-sill when not in use, and to be thrown over the same when used, placing the rope and the rollers upon which the rope is wound out from the wall, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates a roller flanged at both ends, and having a flange, B, around its middle, adapting it to receive two ropes or cords, C and D, wound upon the two parts of the roller in opposite directions. This roller is journaled in the ends of two brackets, E, consisting of two outer long arms, F, connected by a rule-joint to the inner shorter arms, G, which are hinged upon two projections, H, fastened under the window-sill.

It will be seen that by this construction of the brackets the roller may hang, when not in use, inside the window-sill against the wall, and may, when it is to be used, be thrown over the sill, the inner arms of the brackets reaching up to the surface of the sill, and the outer arms partly resting upon the sill and extend-

ing, with the roller, out from the wall of the house.

To the end of one of the ropes C, which is preferably heavier than the other, is fastened a clamp, I, consisting of two arms, J, hinged at one end, and having the outer sides of their free ends rounded, so as to form a handle adapted to be grasped by the person descending. A loop, K, is passed around the inner portions of the hinged clamp, and a strap or belt, L, is fastened to the loop, adapted to be buckled around the person and support him. The lighter cord, D, passes through two perforations, M, in the loop, and between the hinged arms J, sliding in two grooves in their inner surfaces near the hinge, and by claspings the outer ends of the hinged arms firmer or lighter, pressing them more or less together, the speed of the descent may be governed, the lighter cord being wound upon the roller while the heavier cord is unwound, and vice versa. It follows that for the successful operation of the device the lighter cord must be twice the length of the heavier, so that when the person descending reaches the ground the end of the lighter cord will touch the ground, while at the start the same length of cord must be on the ground as the distance to be descended. It will also be seen that the escape may be used several times, as it may be raised by the lighter cord from the ground after one descent has been made.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

As an improvement in fire-escapes, the combination and arrangement of the roller A, the rule-jointed brackets E, cords or ropes C and D, clamp I, and belt L, having loop K, constructed to operate as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

FRANK R. WOODWARD.

Witnesses:

WM. SECHER,
JAMES F. REILY.