(No Model.)

R. A. BUSH.

FIRE ESCAPE.

No. 294,848. Patented Mar. 11, 1884.

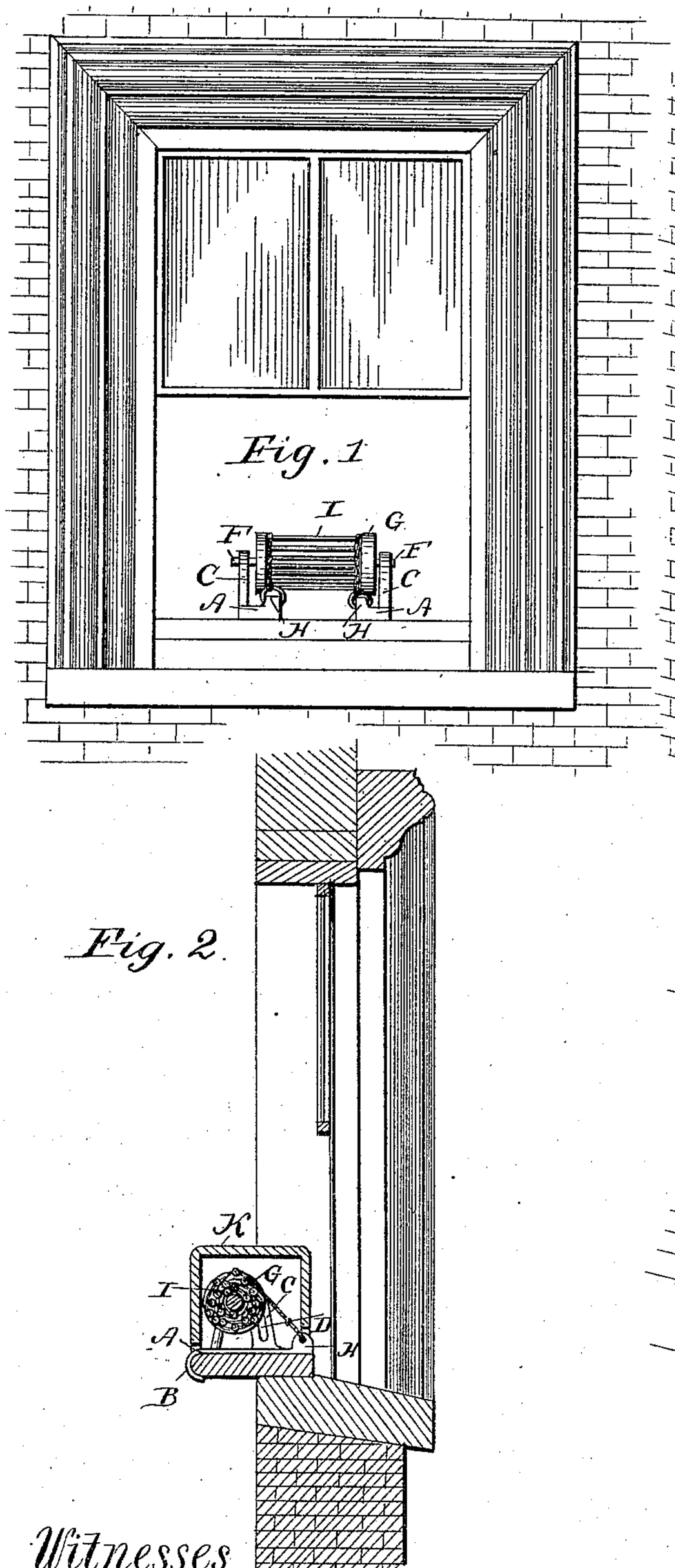

Fig. 1.

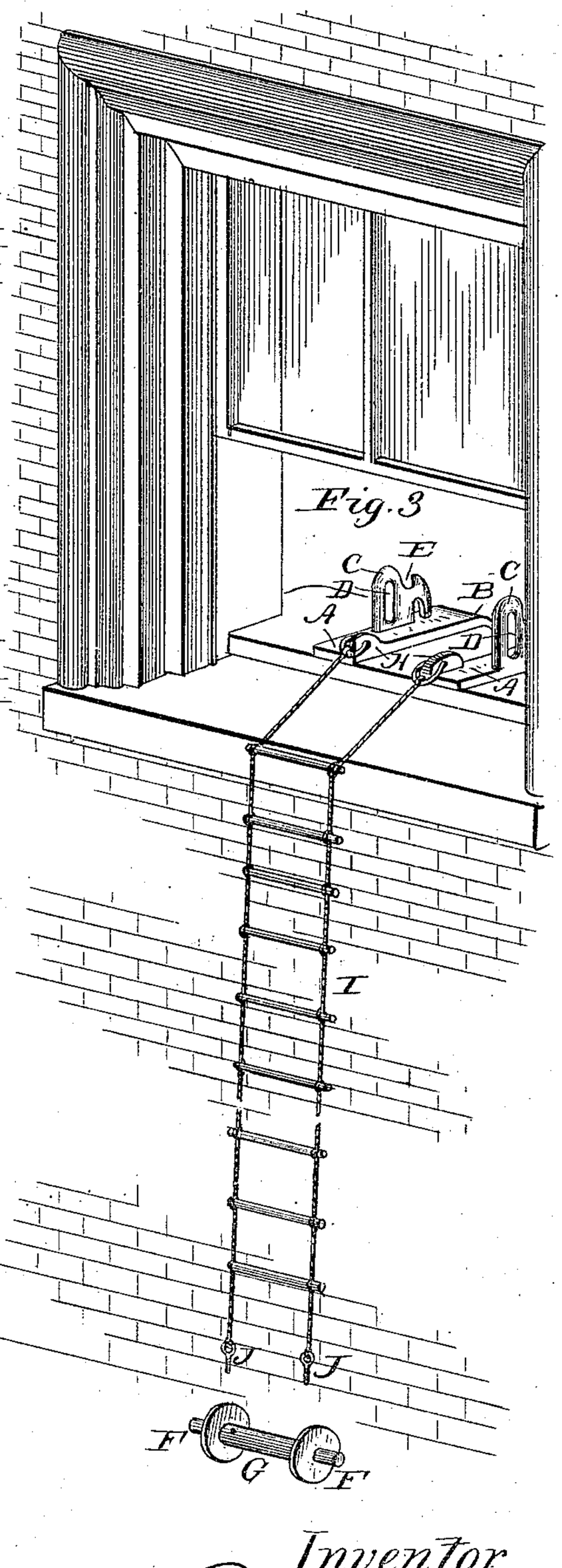

Fig. 3.

Fig. 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

ROBERT ALFRED BUSH, OF BROCKVILLE, ONTARIO, CANADA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 294,848, dated March 11, 1884.

Application filed May 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, ROBERT ALFRED BUSH, a subject of the Queen of Great Britain, residing at Brockville, in the county of Leeds and Province of Ontario, Dominion of Canada, have invented a new and useful Fire-Escape, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to that class of fire-escapes in which a flexible ladder forms the means of exit or escape; and it consists in certain improvements in the construction and arrangement of such fire-escapes, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a front view. Fig. 2 is a vertical sectional view; and Fig. 3 is a perspective view, showing the fire-escape unrolled for operation.

The same letters refer to the same parts in all the figures.

In the drawings hereto annexed, A A represent a pair of rails adapted to be secured upon the sill of the window where the escape is to be used, and having hooks B on their under sides, at their inner ends, which clamp the sill and brace and hold the device securely in position. The rails A A are provided at their outer edges with flanges C C, having slots D D, which form hand-holes to assist in the descent when the escape is to be used. The upper edges of the flanges C have recesses E, forming bearings for the trunnions F F of a reel, G. The front ends of the rails A A have perforated lugs H H, to which the flexible escape-ladder I is attached. The sides of the said ladder are preferably constructed of wire rope, and the rungs of iron bars or tubing. The lower ends of the sides of the ladder are secured to staples J J, which are attached loosely to the body of the reel G, so that the weight of the latter shall be sufficient to detach it from the said staples and from the ladder. The ladder is to be wound upon the reel G', and the latter supported by its trunnions F in the bearings E, above mentioned. When in this position, the escape is to be covered by a detachable cabinet or casing, K.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. In case of fire, or when it is desired to use the escape, the casing is to be removed, the reel G lifted or rolled out of its bearings, and allowed to drop out of the window. As it falls, the flexible ladder is unrolled, and when it has been completely unrolled and stretched the reel, by its own weight, becomes detached, and drops to the ground. Any jar which might prove injurious to the escape-ladder and its fastenings is thus avoided. By this arrangement the ladder may be unrolled and thrown into position for operation in a moment's time, and mistakes are not liable to occur, as is the case in fire-escapes where intricate mechanism has to be employed to unroll the escape-ladders.

Instead of securing the rails A to the sill of the window, they might be secured to the floor, or in any suitable convenient position.

I claim as my invention and desire to secure by Letters Patent of the United States—

1. In a fire-escape, the herein-described base-rails, adapted to be secured to a window-sill, and having hooks at their rear ends clamping the edge of the sill, side flanges provided with hand-holes, and perforated lugs at their front ends, in combination with a flexible escape-ladder secured to the said lugs, as set forth.

2. The combination, with a flexible fire-escape ladder, of a reel secured to the lower ends of the sides of said ladder by means of staples loosely connected to the said reel, so that the said reel shall become detached by its own weight when the ladder is unrolled, substantially as set forth.

3. As an improvement in fire-escapes, the combination of a pair of rails adapted to be secured to a window-sill, and having side flanges provided with hand-holes, and having recesses in their upper edges, forming bearings for a reel, a flexible ladder attached to the front ends of said rails, and a reel attached to the lower ends of the sides of the said ladder by means of staples detachable from the said reel by the weight of the latter, the ladder being wound, from the bottom up, upon the reel, and the latter supported by its trunnions in the bearings in the upper edges of the flanges of the rails, substantially as set forth.

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

ROBERT ALFRED BUSH.

Witnesses:

WILLIAM JAMES WRIGHT,

JOHN ARTHUR REYNOLDS.