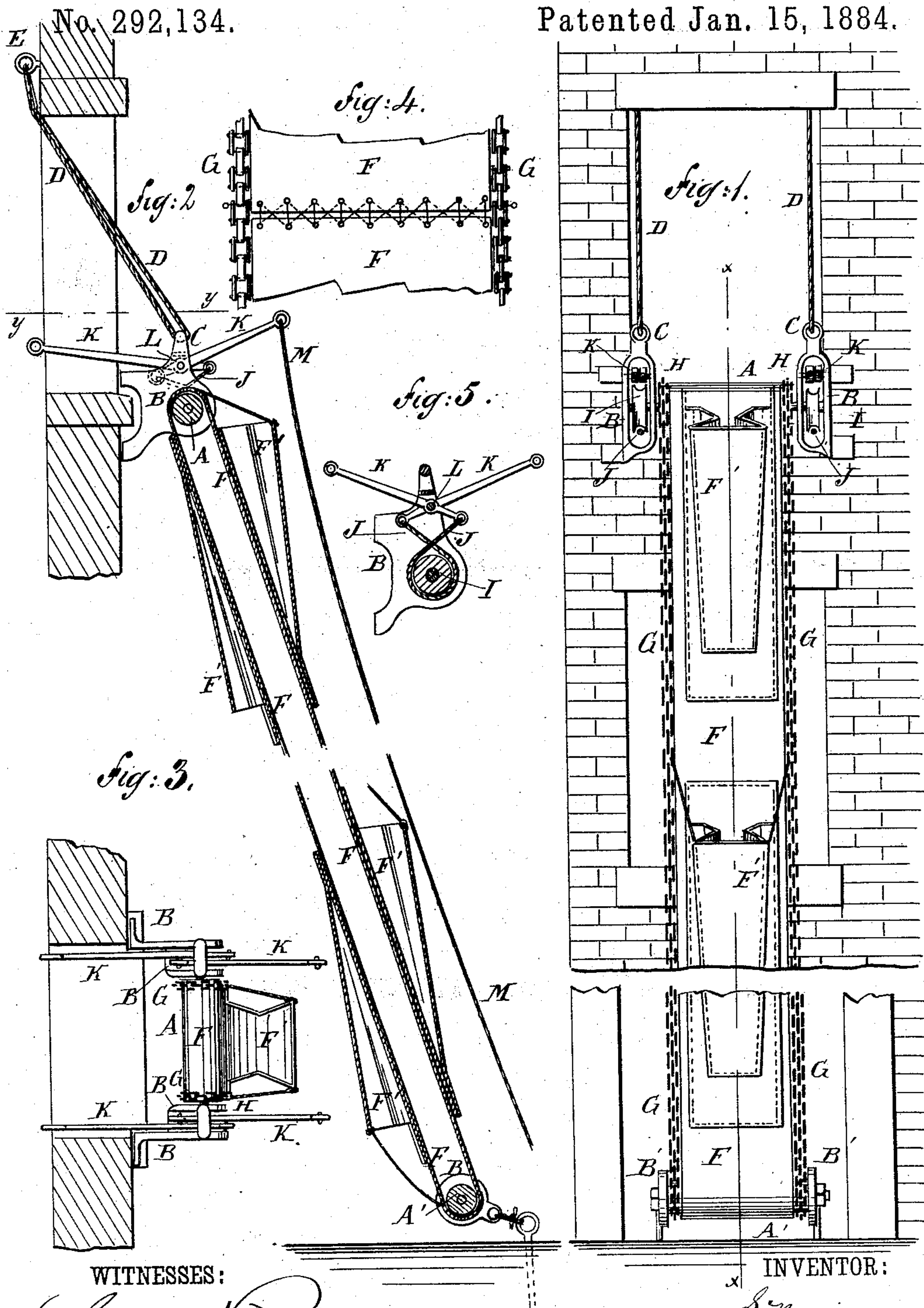


(No Model.)

S. NORRIS.
FIRE ESCAPE.

No. 292,134.

Patented Jan. 15, 1884.



WITNESSES:

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UNITED STATES PATENT OFFICE

SAMUEL NORRIS, OF HALIFAX, NOVA SCOTIA, CANADA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 292,134, dated January 15, 1884.

Application filed September 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL NORRIS, of Halifax, in the county of Halifax, Province of Nova Scotia, and Dominion of Canada, have invented a new and useful Improvement in Endless-Belt Fire-Escapes, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of my improvement, shown as applied to a building. Fig. 2 is a sectional side elevation of the same, taken through the line *xx*, Fig. 1. Fig. 3 is a plan view of the same, the wall of the building being shown in horizontal section, taken through the line *yy*, Fig. 2. Fig. 4 is a front elevation of a part of the endless belt. Fig. 5 is a sectional elevation of a part of the same, taken through one of the brake-wheels.

The object of this invention is to facilitate the escape of people and the removal of property from buildings when the ordinary egress-passages have been rendered impassable by fire or other cause.

The invention consists of the several hereinafter described and claimed combinations and arrangements of parts.

A represents a roller, the journals of which revolve in blocks B.

Upon the upper ends of the blocks B are formed eyes C, in which are secured ropes or chains D, the other ends of which are designed to be secured to hook or eye bolts E, attached to the upper part of the window-casing, or to the floor, wall, or ceiling within the building.

The blocks B are designed to be formed with projections to rest against the window-sill or the side of the building.

Over the roller A is passed an endless belt, F, which is made of such a length as to reach to the ground, and which is designed to be strengthened by chains G, secured to its edges. The endless belt F and its strengthening-chains G are designed to be made in sections, the adjacent ends of the belt-sections being connected by lacing or other suitable means, and the ends of the chain-sections by snap-hooks or spring-links, so that a longer or shorter belt can be formed by using more or fewer sec-

tions. The roller A is provided with chain-rollers H for the chains G to pass over, to prevent the endless belt from slipping upon the said roller and allow the descent to be regulated by brakes.

To the belt F are attached pockets F', of sufficient size to allow people to readily get into and out of the said pockets. The bearing-blocks B are slotted, and to the journals of the roller A, within the said slots, are attached brake-wheels I, around each of which is passed a brake-strap, J. The end parts of the brake-strap J cross each other above the brake-wheel I, and their ends are attached to the ends of the levers K, which cross each other at the pivoting bolt or rivet L. The bolt or rivet L passes through the block B in such a position that the levers K can pass through and work freely in the upper part of the slot in the said block. With this construction the outer end of a lever of each pair will project into the window, so that it can be reached and operated by people within the room, to control the rapidity of descent. To the outer end of the other lever of each pair is attached the end of a cord, M, which passes down along the endless belt F, so that the people in the pockets F' can reach and operate the said cord to control the rapidity of descent. If desired, the endless belt F can pass around a second roller, A', the bearing-blocks B' of which can be secured to the ground by stakes or other suitable means.

The advantage of the second or lower roller is, that it allows the lower part of the endless belt to be held back from the building while being used.

When the fire-escape is not in use, the endless belt F can be rolled around the roller A and kept in a box beneath the window, or in some other place of convenient access.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A fire-escape constructed substantially as herein shown and described, and consisting of a roller provided with chain-wheels and brake-wheels, an endless belt provided with pockets and strengthening-chains, suspended bearing-blocks to carry the endless-belt roller, and brake-straps, brake-levers, and brake-cords for controlling the escape, as set forth.

2. In a fire-escape, the endless belt F, made,

substantially as herein shown and described, with pockets F' and strengthening-chains G, as set forth.

3. In a fire-escape, the combination, with
5 the roller A, provided with chain-wheels H and the suspended bearing-blocks B, of the endless belt F, provided with pockets F' and strengthening-chains G, substantially as herein shown and described, whereby people and
10 property can be lowered by their own weight, as set forth.

4. In a fire-escape, the combination, with
the roller A, carrying the endless belt F, and
15 the suspended bearing-blocks B, of the brake-wheels I, the crossing brake-straps J, the pairs of crossing brake-levers K, having a common

fulcrum and their shorter arms connected to the brake-straps, and the brake-cords M, substantially as herein shown and described, whereby the rapidity of descent can be readily con- 20 trolled, as set forth.

5. In a fire-escape, the combination, with the suspended bearing-blocks B, the roller A, and the endless belt F, having pockets F', of a second set of bearing-blocks, B', and a sec- 25 ond roller, A', substantially as herein shown and described.

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Witnesses:

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