

(No Model.)

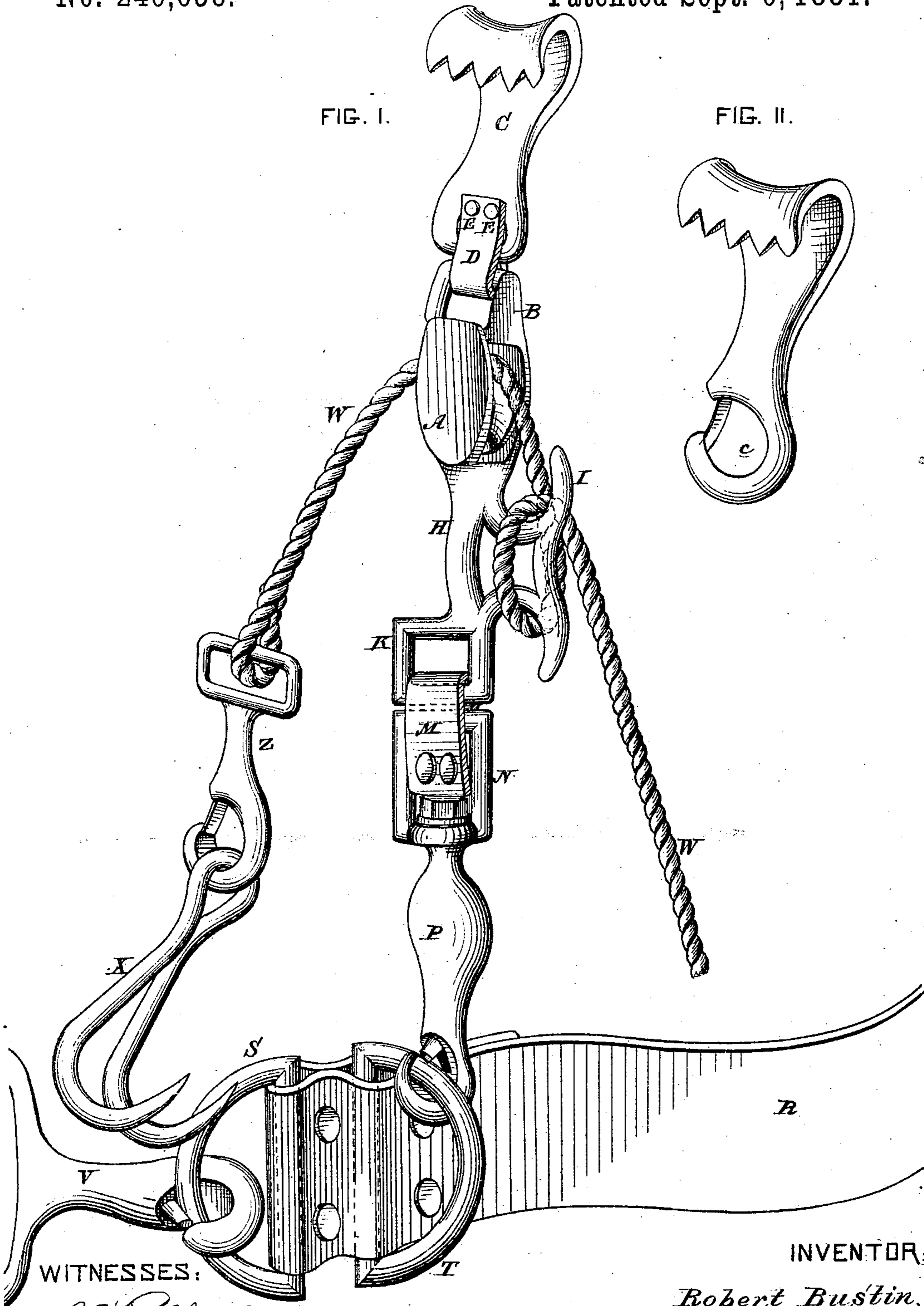
R. BUSTIN.
FIRE ESCAPE.

No. 246,658.

Patented Sept. 6, 1881.

FIG. I.

FIG. II.



WITNESSES:

J. A. Rutherford
Robert Everett

INVENTOR:

Robert Bustin,

By *James L. Norris*
Attorney.

UNITED STATES PATENT OFFICE.

ROBERT BUSTIN, OF ST. JOHN, NEW BRUNSWICK, CANADA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 246,658, dated September 6, 1881.

Application filed February 1, 1881. (No model.)

To all whom it may concern:

Be it known that I, ROBERT BUSTIN, a subject of the Queen of Great Britain, residing at St. John, New Brunswick, Dominion of Canada, have invented new and useful Improvements in Fire-Escapes, of which the following is a specification.

This invention relates to an improvement upon the fire-escape devices shown and described in Letters Patent No. 179,515, granted to me on the 4th day of July, 1876.

The object of the present improvement is to facilitate the attachment and detachment of the main supporting part of the apparatus to and from a portion of a burning building, the round of a ladder, or other fixed point, the main object of the original invention being to produce an apparatus of such size that it can be conveniently carried about the person or packed into a small space for transportation, and by means of which any number of persons may be successfully and safely lowered from a burning building or other elevated position at a moment's notice, and by which the operator may descend from the building and save his apparatus after his descent without the aid of any other person.

In the accompanying drawings, Figure I is a perspective view of a fire-escape provided with my improvement. Fig. II illustrates a modification of the attaching-hook.

The letter A designates a tackle-block, constructed preferably of metal, with a loop-extension, B, at its upper end, to serve as a means of connecting the grappling-hook C and its attaching-band D, which is preferably made of stout leather and secured by means of rivets E. From the lower end of the block projects a shank, H, provided with a cleat, I, on one side, the block, shank, and cleat being preferably cast in one and the same piece of metal. At the lower end of the shank is formed a loop or eye, K, to which is connected by a leather band, M, the swiveled head N of a snap-hook, P.

The letter R designates a belt of leather or other suitable material, to one end of which are secured half-rings S and T, the body of the belt being passed through the eye of a snap-hook, V, and its other end secured to a slide arranged upon the belt after the ordinary

manner or mode of constructing extension-belts.

The letter W indicates a rope passed over the pulley in the block A, and having secured to one end a snap-hook, Z, to which is connected a grappling-hook, X.

The operation of the apparatus is as follows: Say, for instance, that a fire has broken out in a building and progressed so far as to cut off escape from the upper rooms by the stairs or other usual means, and a person or persons in one of the said rooms is provided with my fire-escape. The grappling-hook C is first to be engaged with the edge of a window-sill or any other suitable purchase. Then, if more than one person is to descend, the snap Z or the grappling-hook X is to be engaged with the half-ring T of the belt, which has been placed about the body of the person to be lowered first. The person who remains and is to operate the rope now gives the said rope a turn around the cleat I, so as to be able to easily control it, and the person to descend is then placed outside the building and lowered in safety. The belt may be drawn up and other persons saved in a similar manner. When but one person is to descend or save himself the grappling-hook X, attached to the rope, is engaged with the window-sill or other convenient support. The snap-hook P is to be engaged with the half-ring of the belt placed about his person and a proper turn of the rope taken around the cleat. He then seizes the rope below the cleat, swings himself out the window or other opening, and pays out the rope as required to lower himself. When he alights the apparatus is with him, except that the grappling-hook attached to the rope is engaged above. It can be easily detached, however, by wabbling the rope with the hand briskly after it is slackened, and thus the entire apparatus is saved.

My improved apparatus is an efficient auxiliary of the fire-department, both as a means of saving the occupants of burning buildings and also for saving firemen when they are by the fire cut off from their ladders. When used for saving the inmates of a building the fireman can secure the grappling-hook C to one of the rounds of his ladder.

Instead of the grappling-hook C being con-

nected to the block A by means of the strap D, it may be provided with a snap-eye, e, as shown in Fig. II, and thus connected.

Having now described my invention, I
5 claim—

1. In a fire-escape apparatus, the combination, with the block having the cleat I attached, and the lower hook, P, of the flexibly-connected grappling-hook C, substantially as
10 described.

2. In combination with the block A and lower

hook, P, the flexibly-connected grappling-hook C and the rope W, provided with the grappling-hook X, substantially as described.

In testimony whereof I have hereunto set my
hand in the presence of two subscribing witnesses.

ROBT. BUSTIN.

Witnesses:

JAMES L. NORRIS,

JAMES A. RUTHERFORD.