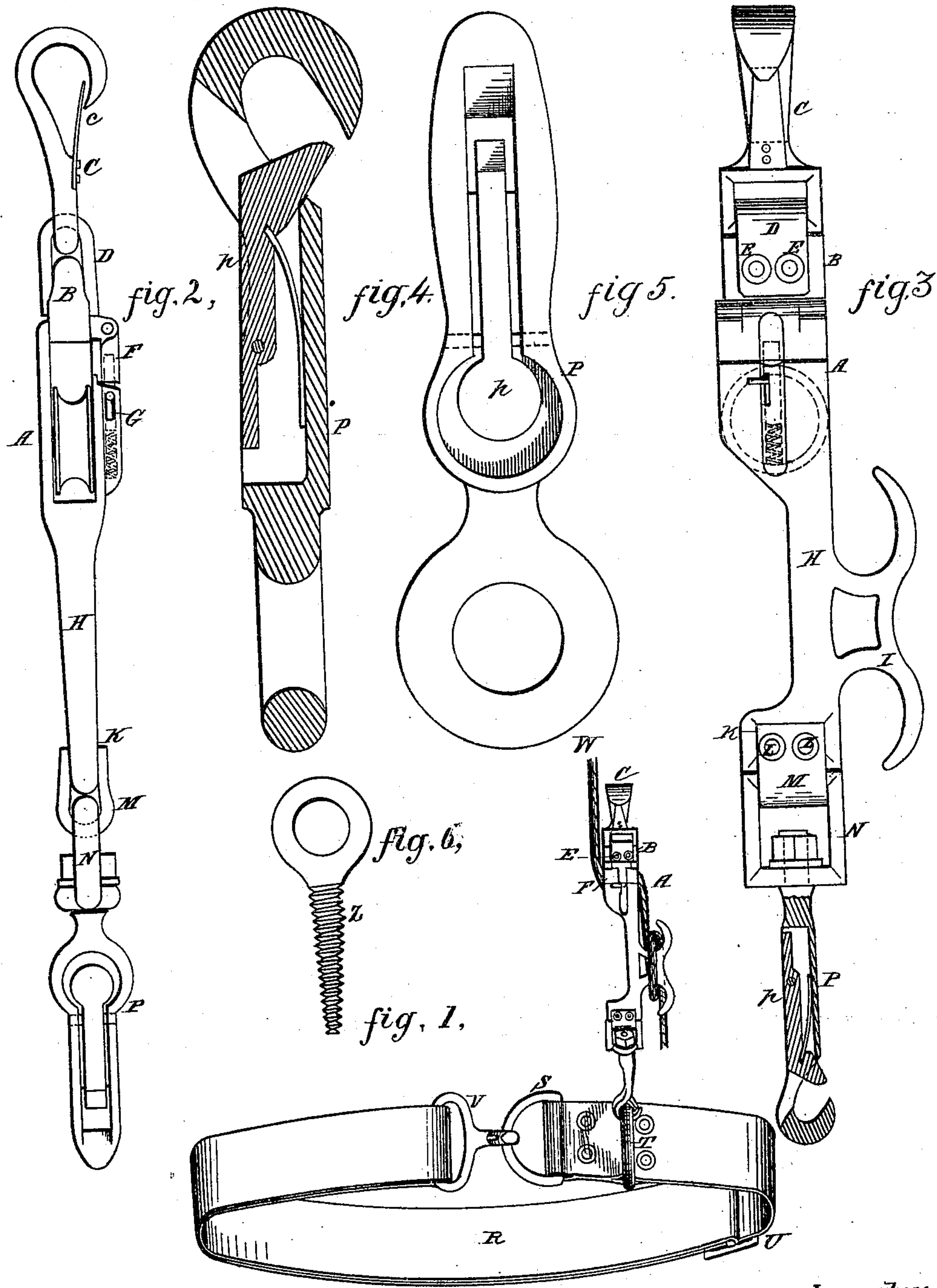


R. BUSTIN.
FIRE-ESCAPES.

No. 179,515.

Patented July 4, 1876.



Witnesses:

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UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **179,515**, dated July 4, 1876; application filed May 18, 1876.

To all whom it may concern:

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

This invention relates to an improved fire-escape, its object 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 into the building and save his apparatus after his descent without the aid of any other person.

This invention consists in a fire-escape in which is combined an open tackle block or rope, a snap-hook, and a belt, as will be more fully hereinafter described. The invention also consists of certain other novel improvements, which will be fully hereinafter described, and specifically pointed out in the claims.

In the drawing, Figure 1 represents a view of my apparatus complete; Fig. 2, a side view of the same, with the belt detached; Fig. 3, a front view of the apparatus, with the belt detached; Fig. 4, a sectional view of the snap-hook, by means of which the belt is attached to the apparatus; Fig. 5, a front view of the same; and Fig. 6, a view of the gimlet-screw, by means of which the apparatus may be secured to the wood-work of a building.

The letter A represents an open tackle-block, constructed preferably of metal, with a head or extension, B, at its upper end, to serve as a support for the snap-hook C and its attaching band D, which is preferably made of leather, and secured by means of rivets E. Said tackle-block is provided at the opening with a swinging catch or gate F, of any suitable construction, in the present instance being hinged to the block, and adapted to shut into the opening and close it, being held in place by the spring-bolt G. The block is formed with an extension or shank, H, provided with a cleat, I, on one side, the blocks, shank, and cleat being preferably cast in one and the same piece of metal. The lower end of said

extension or shank is provided with a loop or eye, K, in which is secured, by means of rivets L, the loop M, of leather or other material, by means of which the swiveled head N of the snap P is secured to the apparatus.

The snaps may be of any desired construction; but I prefer to make them as shown in the drawing, in which the snap C, attached to the tackle-block, is provided with an enlarged ring, rounded on the inside, and is closed by a flat spring, c, for the purpose to be hereinafter more fully explained. The snap P is formed with a smaller hook or loop at its end, which is closed by a thumb-lever, p, pivoted in a recess in the rear of the body of the snap. This snap is connected with the extension or shank of the tackle-block by means of a swivel connection, which is an important feature, allowing the body to adjust itself to the apparatus, no matter in what position the belt may be connected to the snap-hook. The letter R represents a belt, of leather or other suitable material, to one end of which are secured half-rings S T, the other end being secured to an extension slide, U, secured to the belt, by means of which it can be adapted to fit different persons. To the looped portion of the belt is secured a snap-hook, V, similar in construction to the snap-hook P, by means of which the belt may be secured around the body, and permanently held against accidental displacement. The letter W represents a coil of rope, provided with a snap-hook similar in construction to the hooks P and V; and Z represents a hook, provided with a gimlet-pointed screw-shank, which may be readily screwed in the wood-work of a building to support the apparatus when it is to be used.

The operation of my invention is as follows: The various parts being in readiness, the screw-bolt is securely fastened in the window-sill, or to any other portion of the wood-work of the building, and the belt secured around the person to descend. If more than one person is to descend, the snap-hook C is secured to the loop of the screw-bolt, and the snap on the end of the rope is secured to the belt, and the rope set into the tackle-block in the groove of the pulley by throwing back the swinging gate for the purpose. The other end of the

rope, after taking a turn around the cleat, is held by the operator above, who carefully lowers the person, the device serving as a stationary block and pulley, the cleat thereon giving the operator sufficient purchase to obtain entire control of the person during the descent. When but one person is to descend, the snap on the end of the rope is secured in the screw-hook in place of the snap C, and the operator, after securing the belt around his person, and securing the snap P to said belt, can readily lower himself by properly paying out the other end of the rope, after having given it a turn around the cleat, to obtain the proper control over himself during the descent. By means of an auxiliary rope stretched from a window or other convenient point on the building to any suitable point in the street, the operator may land at any convenient distance from the building by securing the snap C over said rope, and gradually lowering himself, the snap traveling down the rope as he descends.

In case the screw-hook should be lost or mislaid, or no suitable place be found for its insertion, the snap-hook at the end of the rope may be clasped around the rope itself, which is previously passed around any suitable object or support, or article of furniture, and the screw then can be dispensed with.

The apparatus will also prove a valuable auxiliary to the fire-department, both as a means for saving the lives of the occupants of burning buildings, and also for the purpose of saving the firemen when, by any means, they

may be cut off from their ladders during their work in a burning building.

In case the apparatus is thus used for removing the inmates of a building, the fireman can secure the apparatus to one of the rounds of his ladder, by means of the snap C, and remove them successively; and if he should be cut off from his ladder without his instrument, he can readily lower a cord and obtain one from his companions, by which he will be enabled to descend in safety.

Having thus described my invention, what I claim is—

1. In a fire-escape, the open tackle-block, to be used in connection with a rope, the snap-hook, and a belt, adapted to be secured to the body of the person to be lowered, substantially as described.

2. In combination with the open tackle-block, to operate in connection with a rope, the snap-hook C, attached to said block for the purpose of supporting the apparatus when the operator descends to lower another person, and for guiding the apparatus down an auxiliary rope, substantially as described.

3. In combination with the open tackle-block, to operate in connection with a rope, the extension or shank and cleat thereon, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

Witnesses:

ROBT. BUSTIN.

JOS. L. COOMBS,

A. H. NORRIS.