W. DURYEA.
Fire-Escape.

No. 210,928. Patented Dec. 17, 1878.

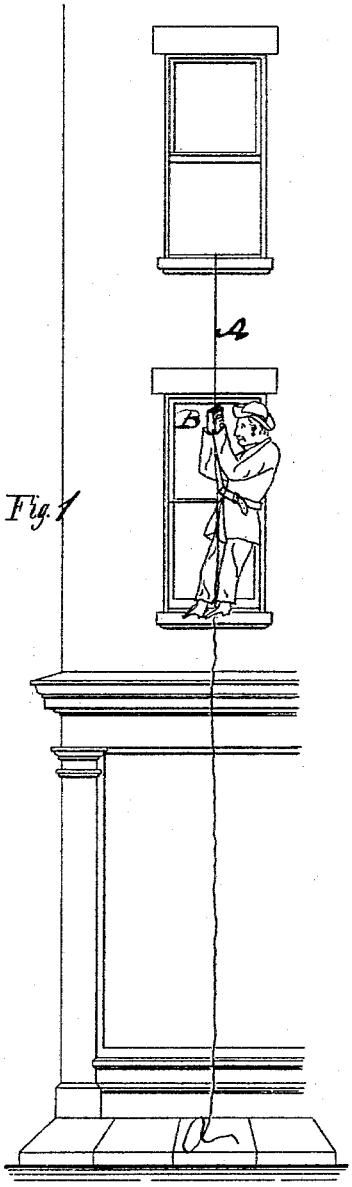

Fig. 1

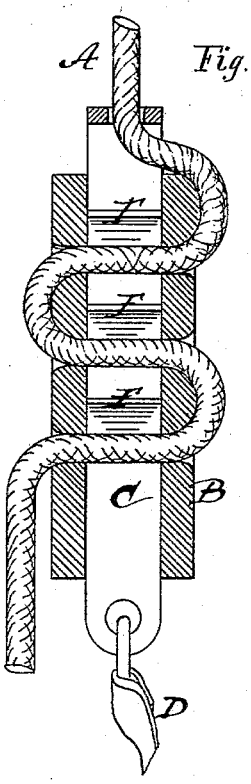

Fig. 2

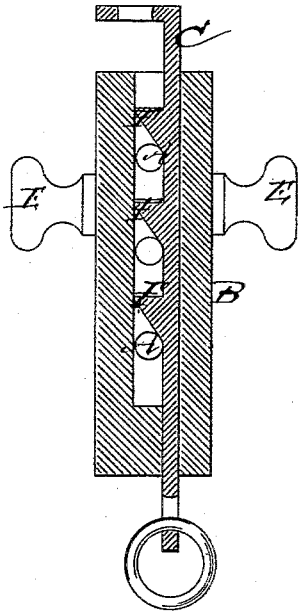

Fig 3

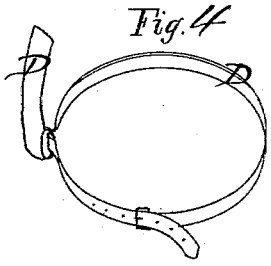

Fig. 4

Witnesses:
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UNITED STATES PATENT OFFICE.

WRIGHT DURYEA, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **210,928**, dated December 17, 1878; application filed September 5, 1878.

To all whom it may concern:

Be it known that I, WRIGHT DURYEA, a resident of Brooklyn, Kings county, and State of New York, have invented a new and useful Improvement in Fire-Escapes, of which the following is a specification:

This improved fire-escape consists, essentially, of a block through which a cord is rove, to run down on said cord while the person holds on to handles of the said block, and a friction plate or bar fixed movably in said block, and having gear, by which the person is suspended from said plate, and inclined planes or projections on the bar or plate, arranged in suitable relations to the cord, where it traverses the block, to produce the friction for regulating the descent, the said projections being made, by the weight of the person suspended from the bar, to wedge the cord more or less between it and the block, according as he shifts his weight by means of the handles from the bar to the block, or contrariwise.

In the accompanying drawing, Figure 1 is a representation of the apparatus, showing the mode of using it. Fig. 2 is a sectional elevation of the block, taken in the plane in which the cord is rove through it. Fig. 3 is a section transversely to the cord, and Fig. 4 is a perspective view of the straps for attaching the person to the bar.

A represents the cord; B, the block which the cord is rove through, and which runs down on said cord; C, the friction bar or plate which regulates the descent; D, the strap by which the device is attached to the person, and E the handles of the block, by which the friction is varied and the descent regulated.

The bar has inclined projections F on one side, above the cord, and touching it where it traverses the block from side to side several times; and said bar is capable of moving up and down in said block, through which it extends from top to bottom. At the upper end of the bar the cord passes through it; but this is not essential.

It will be seen that while the weight of the person suspended from the plate causes it to descend, the block is retarded by the friction of the cord passing through it, and this causes the inclines F of the bar to wedge the cord fast in the block, and thus arrest the descent, until the operator relaxes the friction by pulling on the handles, and transfers his weight to some extent to the block, thus permitting the descent, which he regulates by pulling more or less on the block, as he finds himself going fast or slow.

The method of attaching the friction-plate to the person may be varied according to the will of the maker; and, if desired, or if found necessary in consequence of the wedging of the cord too tightly to be released by pulling the blocks down by the handles, there may be short lever-handles pivoted to the block and connected to the plate or bar, so that the plate will be raised and the block depressed relatively to each other by pulling down on said handles.

The block may be contrived suitably for winding the cord on it compactly for disposing the device in a trunk or satchel; or a reel specially contrived and adapted for the purpose may be used.

The projections may be either straight or curved, and any preferred number may be employed.

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

The combination of the friction-plate C, having inclined projections F, and the attaching device D, with the block B, and the cord A, rove through said block, all substantially as described.

WRIGHT DURYEA.

Witnesses:
A. P. THAYER,
WM. J. MORGAN.