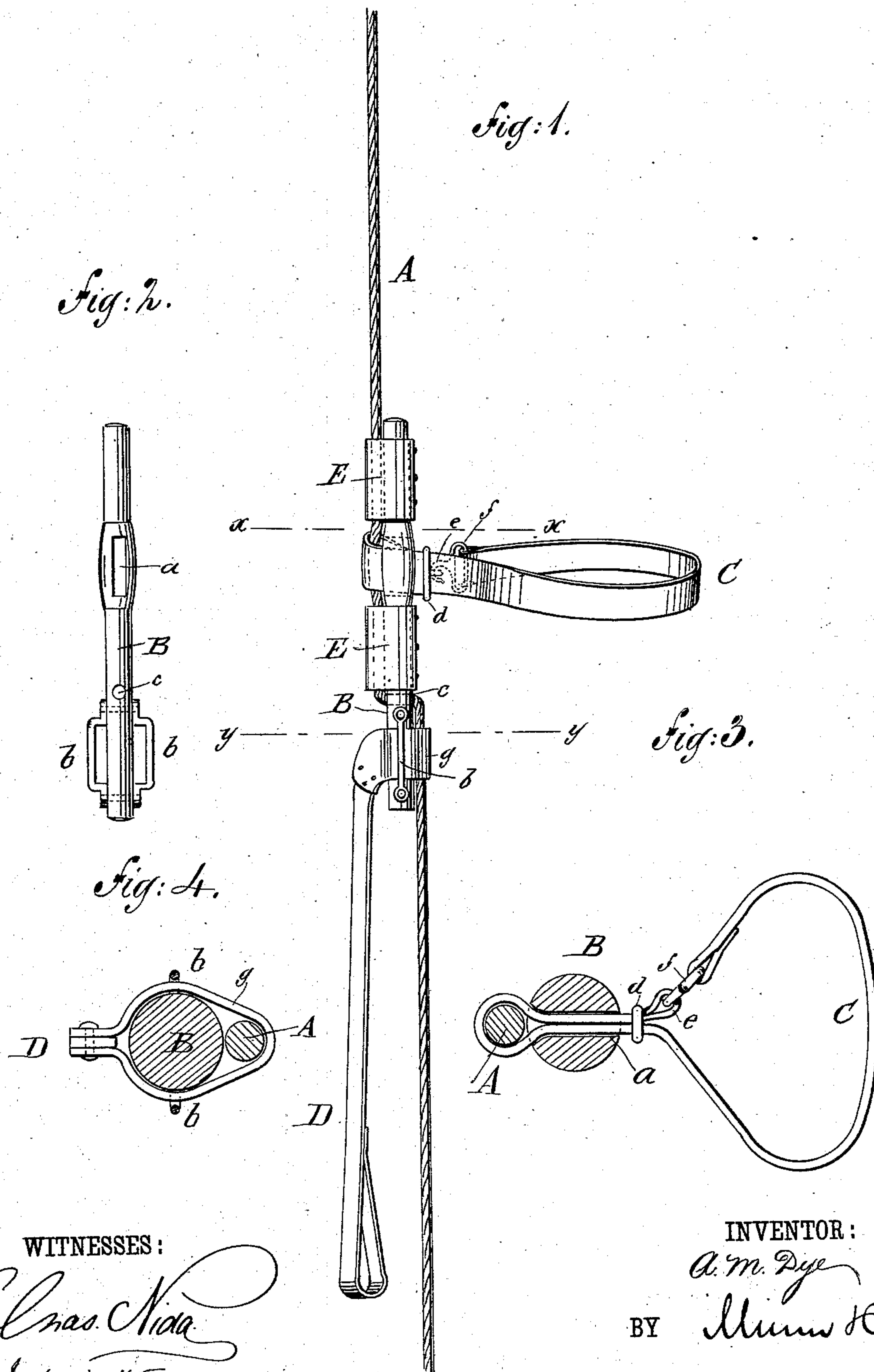


(No Model.)

A. M. DYE.  
FIRE ESCAPE.

No. 284,542.

Patented Sept. 4, 1883.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ALEXANDER M. DYE, OF MINNEAPOLIS, MINNESOTA.

## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 284,542, dated September 4, 1883.

Application filed February 14, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER M. DYE, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and Improved Fire-Escape, of which the following is a full, clear, and exact description.

This invention relates to a portable single-rope fire-escape; and it consists of novel means whereby a person may easily and safely lower himself on the rope from a window of a building to the ground or pavement in case of fire.

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

Figure 1 is a side elevation of my new and improved fire-escape. Fig. 2 is a front elevation of the stock detached from the rope, and Figs. 3 and 4 are sectional plan views taken, respectively, on the lines *xx* and *yy* of Fig. 1.

The stock B is formed with the slot *a*, side loops, *b b*, and with the hole *c*, and this stock is attached, primarily, to the escape-rope A by means of the leather shields E E, as shown in Fig. 1, and these shields serve also as brakes and for hand-grasps for the person descending the rope.

Through the slot *a* of the stock is passed the body-strap C, which is wrapped around the rope A and its end returned through the slot, where it is held by the ring *d*, and at this end the strap is provided with the loop *e*, while at its outer free end it is provided with the hook *f*, which is adapted to be hooked into the loop *e* after the strap has been passed around the body, and the folds of this strap move freely in the slot *a*, so that any weight on the strap will cause it to grasp the rope and serve as a brake.

Through the side loops, *b b*, of the stock is passed the broad strap *g*, which passes around the rope A after its passage crosswise through hole *c* of stock B, and to this strap *g* is attached the stirrup D, and this strap *g* moves freely in the loops *b b*, so that any weight in the stirrup will cause it also to grasp the rope A and serve as a brake.

In use, the person to descend will first make fast the upper end of the rope A to the window-casing, or to some permanent object in the room. The strap C will then be passed around the body, and one foot placed in the stirrup D. He will then grasp the shields E E firmly in his hands, and then let himself out of the window. The retarding action of

stirrup-strap *g* and the strap C upon the rope and the passage of the rope through the hole *c* will be considerable, and perhaps sufficient to insure the safe descent of a light person; but in case the descent is too rapid the person may easily retard and regulate his speed of descent by grasping the shields E E with greater or less firmness.

In this manner it will be seen that the fire-escape is safe, adapted both for light and heavy persons, is cheap, and, when folded up, will occupy small space, so that it may be conveniently carried in a traveling-bag or trunk.

In some cases, if found necessary, I shall use two pieces of rubber tubing, which will be forced upon the stock B under the shields E E, against which the rope will be pressed in grasping the shields, thus affording greater friction; and, instead of passing the strap C through the slot *a*, I may use a metal cockeye, to which the strap C may be attached, and which will reach through the slot *a* and have the rope A passed through it.

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

1. The fire-escape herein shown and described, consisting of the stock B, rope A, and the body-strap C and stirrup D, arranged and operated substantially as set forth.

2. In a fire-escape, the combination, with the stock B, provided with the slot *a*, of the body-strap C, provided with a loop or eye to receive the escape-rope, substantially as herein shown and described.

3. In a fire-escape, the combination, with the stock B, provided with the hole *c* and the loops *b*, of the foot-strap D *g*, substantially as herein shown and described.

4. In a fire-escape, the combination, with the stock B, of the flexible shields E, serving as means for securing the stock to the rope as hand-grasps and as brakes, substantially as herein shown and described.

5. The stock B, formed with the slot *a*, hole *c*, and side loops, *b b*, in combination with the rope A, shields E E, body-strap C, and stirrup D, constructed and arranged to operate substantially in the manner and for the purposes set forth.

ALEXANDER M. DYE.

Witnesses:

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