

(No Model.)

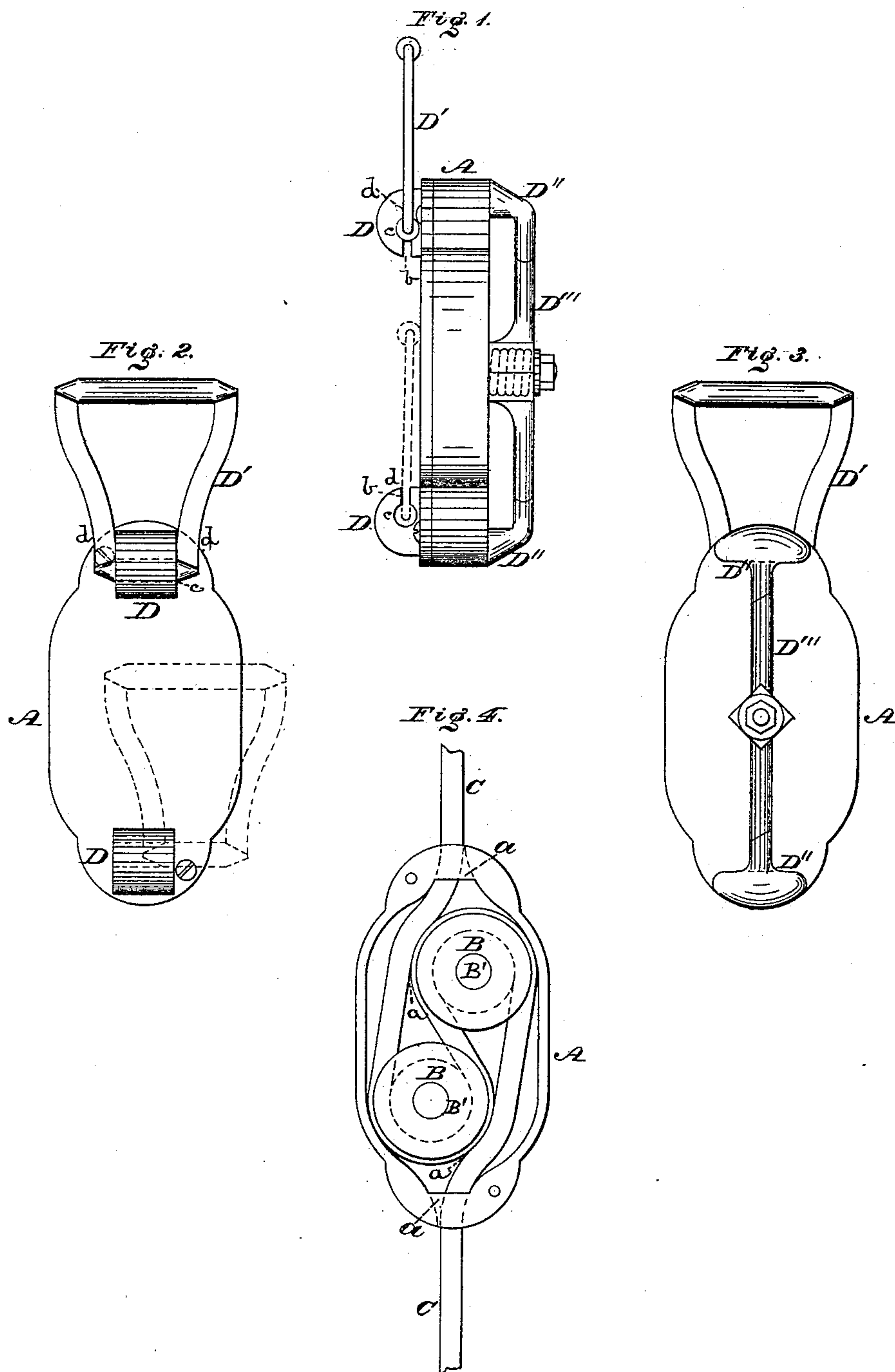
2 Sheets—Sheet 1.

H. E. BRAUNFELD.

FIRE ESCAPE.

No. 273,807.

Patented Mar. 13, 1883.



WITNESSES:

L. Douville
H. F. Girches

INVENTOR:

Henry E. Braumfeld,
BY *John A. Diersheim* ATTORNEY.

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Fig. 5.

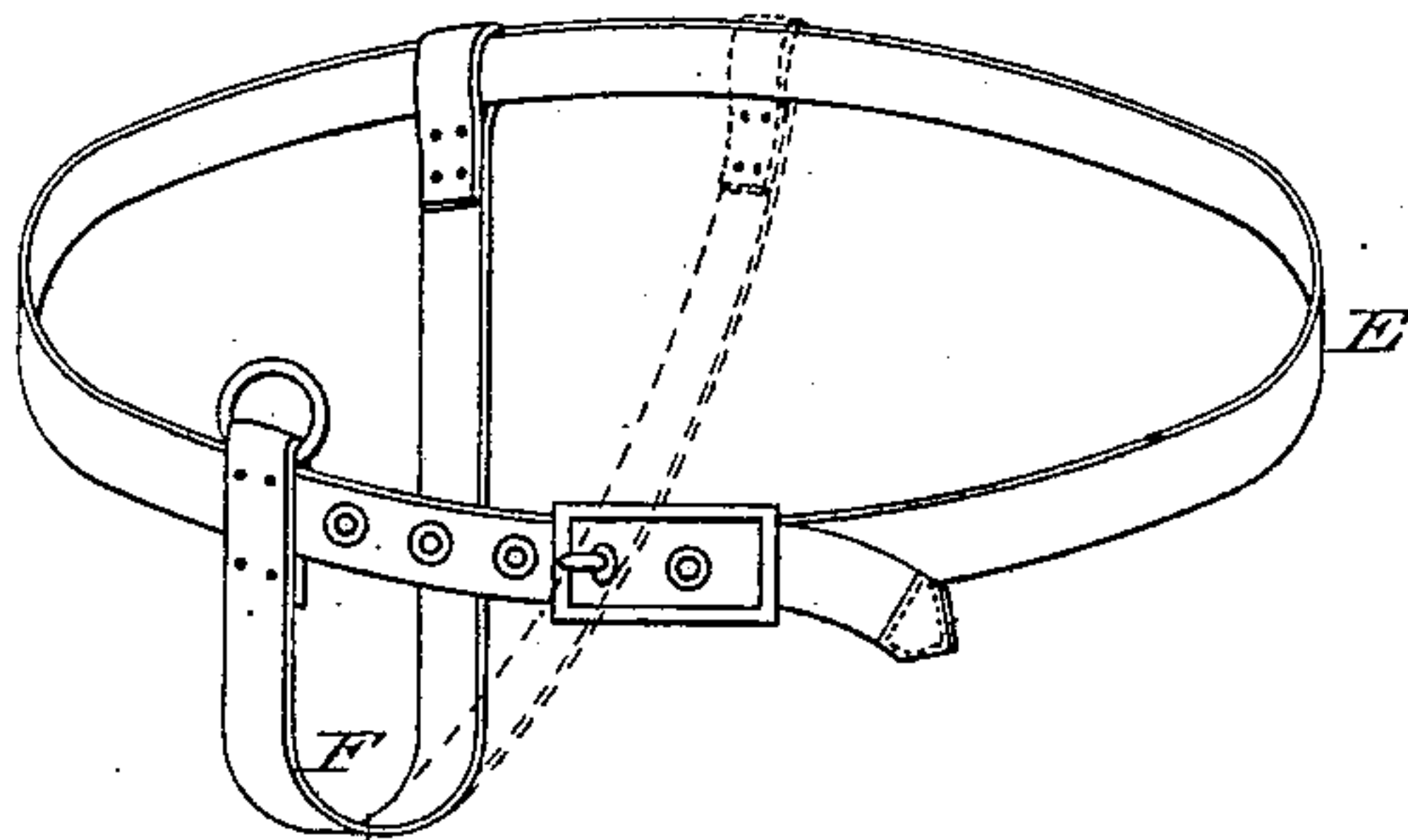
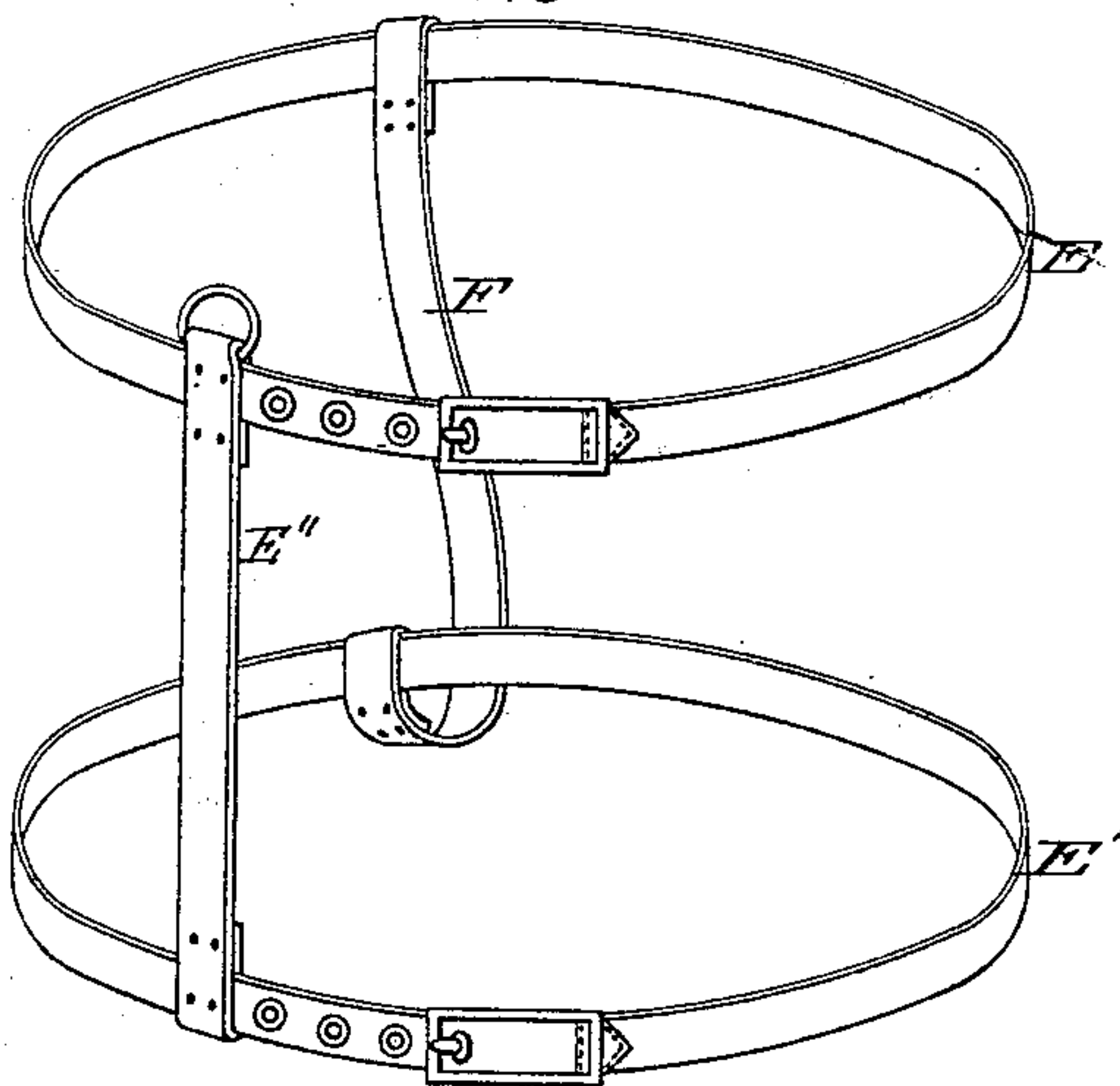


Fig. 6.



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UNITED STATES PATENT OFFICE.

HENRY E. BRAUNFELD, OF PHILADELPHIA, PENNSYLVANIA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 273,807, dated March 13, 1883.

Application filed December 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY E. BRAUNFELD, of the city and county of Philadelphia, State of Pennsylvania, a subject of Germany, having resided one year last past within the United States, and made oath of my intention to become a citizen thereof, have invented a new and useful Improvement in Fire-Escapes, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figures 1, 2, and 3 are side elevations of the fire-escape embodying my invention. Fig. 4 is a view of the interior thereof. Figs. 5 and 6 are perspective views of fire-escape straps embodying my invention.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a fire-escape formed of a box, pulleys within the same, and a rope, said box having at opposite ends, or top and bottom, eyes for the reception and connection of a removable ring or loop, the construction and operation thereof being hereinafter fully set forth.

Referring to the drawings, A represents a box or casing having at top and bottom openings *a a*. (Shown in dotted lines, Fig. 4.)

B represents pulleys which are mounted on posts *B'*, secured to or formed with the box; and C represents a rope or chain which is passed through one opening, *a*, then around the pulley opposite to said opening, and next around the other pulley, and finally out of the opening *a*, opposite to the entrance, coming in contact with itself, as at *a a*. Furthermore, said pulleys have grooved peripheries, and their posts are preferably arranged out of center, or diagonally.

To the box A are secured at opposite ends eyes D, which are opened on the parts which face each other, as at *b*, and adapted to receive a ring or loop, *D'*, the side of which is flat, as at *d*, to accord with the openings *b* of the eyes D, and one of the cross-bars of said ring or loop is rounded, forming a journal, *c*, which is of greater diameter than the width of the openings *b*, and conforms to the inner face of the eye. The loop is presented to the side of the eye, as shown by the dotted lines, Figs. 1

and 2, and the flat side pushed through the opening *b* until the journal *c* occupies the center of the eye. The loop is then turned outwardly, and thus firmly attached to the box without liability of displacement unless again turned back on the box, which is impossible while the device is in use. Hence the security of the loop is assured. The loop may, however, be removed, when desired, by proper manipulation, and is applicable to either end of the box. The hooks *D''* and pivotal tongue *D'''* are the subject-matter of another application for Letters Patent.

The upper end of the rope is attached to a window or other suitable part of a building, and as the box is connected with a sling secured to the body of the person using the fire-escape the weight of the person is transmitted to the box, whereby the latter descends. The friction on the rope created by the box and wheels retards the descent of the box, so that said descent is controlled and made safe, there being sufficient rapidity for all purposes, the descent being further controlled by the hands of the person acting as a brake on the rope, and the loose rope below the box may be wound around the box as an additional check or entire stoppage of the descent. As the rollers B are grooved, the length of rope that runs on the other around the rollers is also guided by the walls of the grooves of said rollers, and so prevented from leaving the same and jamming, binding, and fouling. The diagonal arrangement of the rollers removes the rope from the body of the box A, and while ample friction is created for the rope, owing to its running on itself, said friction is not occasioned with the box, and thus heating of the latter is prevented.

It will be seen that either end of the box may be connected with the body-sling without affecting the operation of the escape. By this provision, when the person in danger is laboring under great excitement, no time is lost by him in deciding which end of the escape is operative, since either end may be top or bottom, and is immediately serviceable. The sling to be worn is constructed of the waistband or strap E and resting-strap F, the latter being shiftable to meet the requirements of the case.

In Fig. 5 the strap F is connected at its ends with the strap E, and said strap F will be straddled by the person using it.

In Fig. 6 the sling is designed for females, the lower strap, E', embracing the limbs and gathering the clothes. In this case the strap F is connected with the two straps E E', and an additional front strap, E'', is employed; but in either case the strap F provides a support, rest, or seat for the person, the strap E or straps E E' securely keeping said strap in position, and reliably holding the sling on the body of the wearer, the weight being received on both front and rear of the waistband E.

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

1. A fire-escape consisting of the box A, the pulleys B, and the rope C, said box having an eye, D, at each end, and the removable ring or loop D', which is formed with a flat side, *d*, and a journal, *c*, the parts being combined and operating substantially as set forth.

2. The fire-escape box having at opposite ends eyes D D, each with an opening, *b*, in combination with the ring or loop D', which is formed with a journal, *c*, and flat side *d*, and adapted to be fitted to either of said eyes D, substantially as and for the purpose set forth.

HENRY E. BRAUNFELD.

Witnesses:

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