

(No Model.)

D. H. SWEENEY.

FIRE ESCAPE.

No. 378,529.

Patented Feb. 28, 1888.

Fig-1-

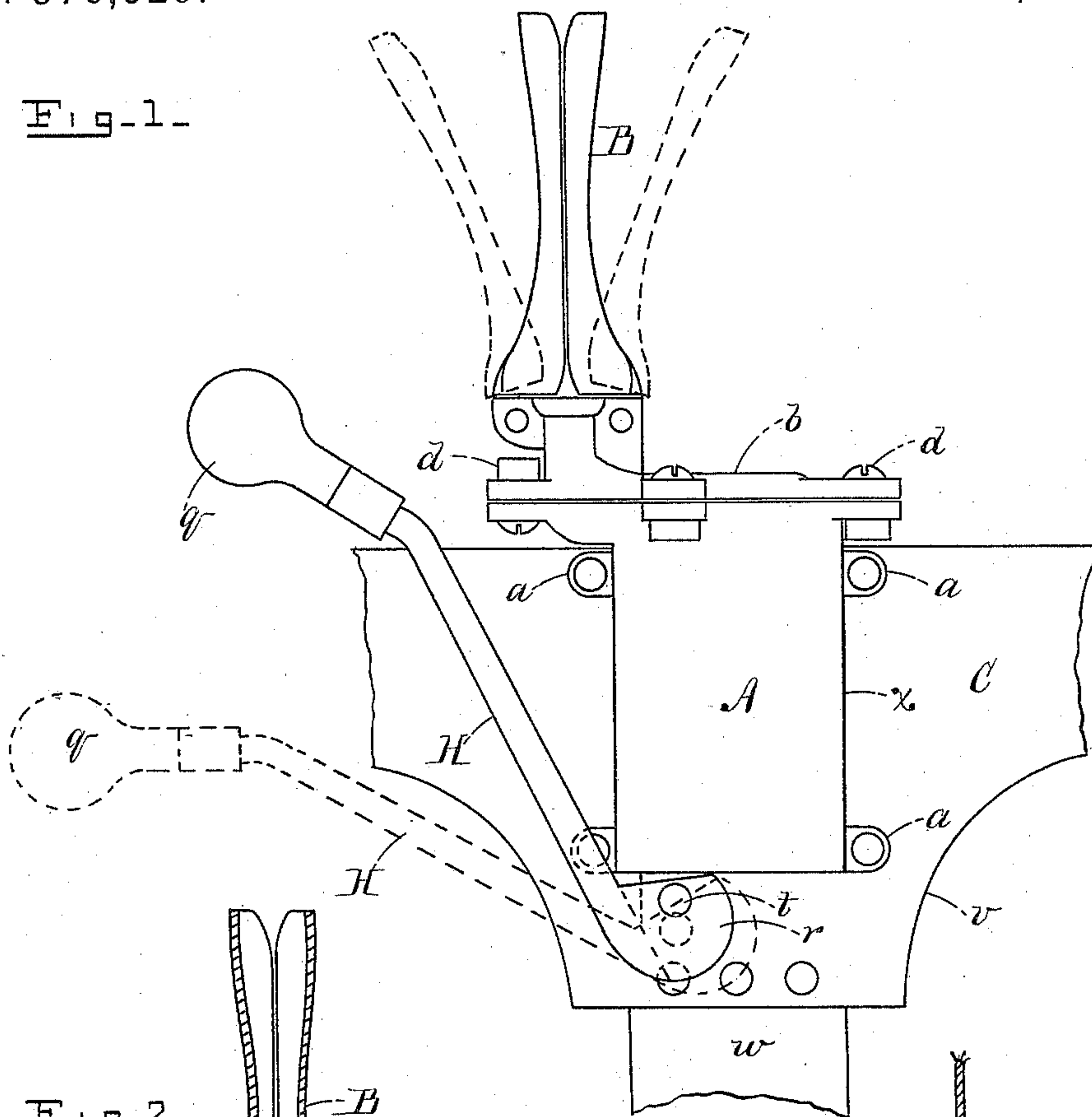


Fig-2-

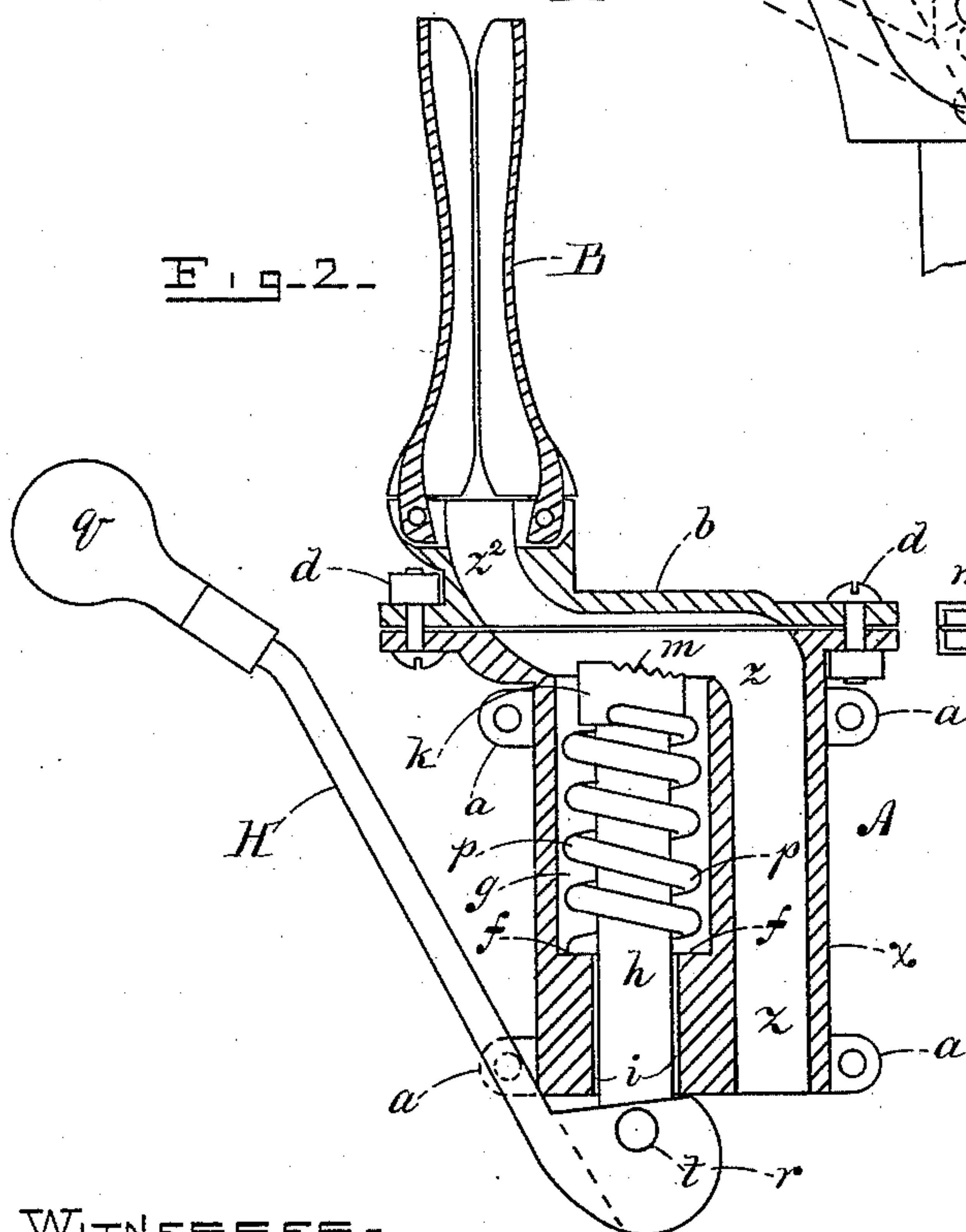
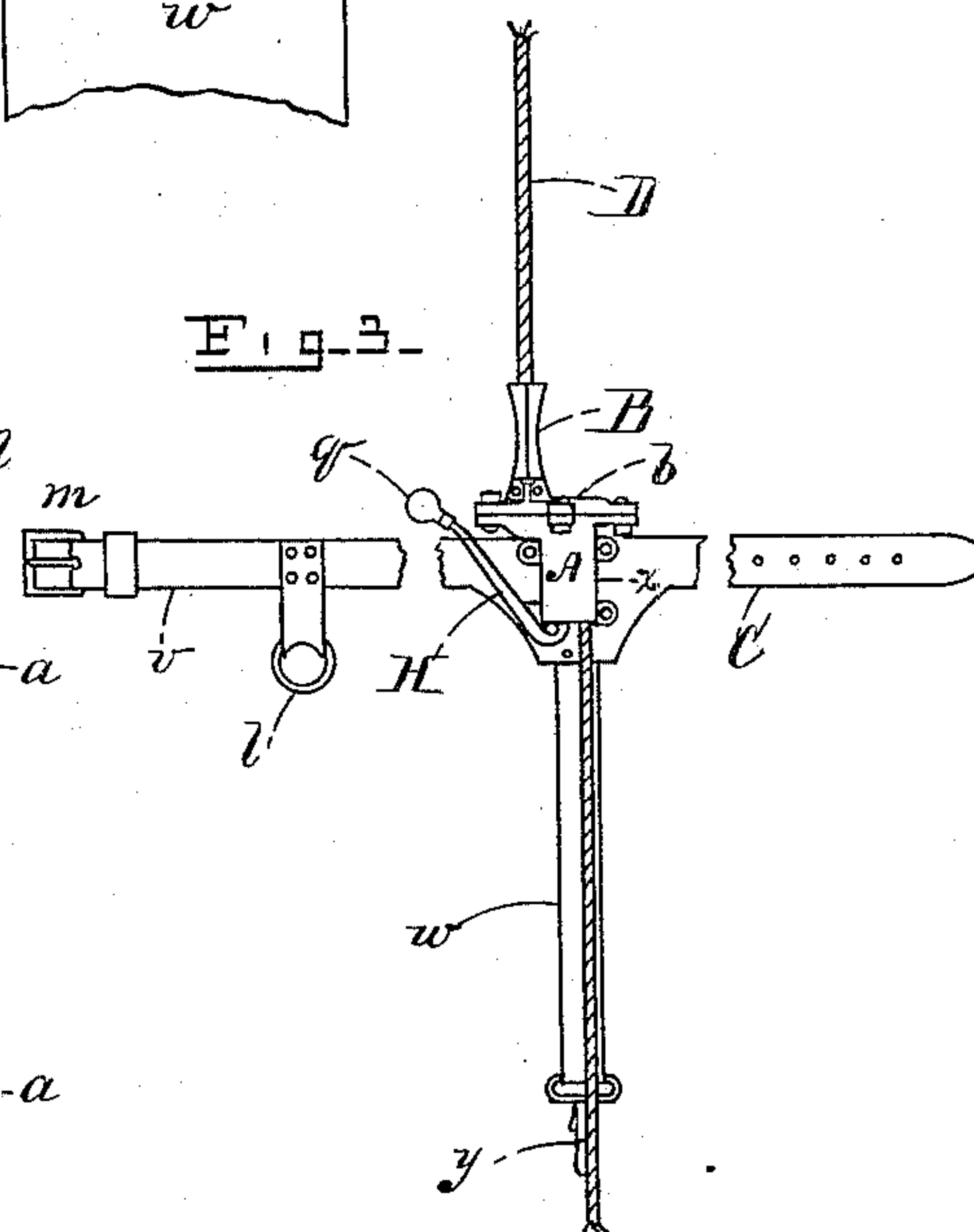


Fig-3-



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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 378,529, dated February 28, 1888.

Application filed December 9, 1887. Serial No. 257,401. (No model.)

To all whom it may concern:

Be it known that I, DAVID H. SWEENEY, of Fitchburg, in the county of Worcester, State of Massachusetts, have invented a certain new and useful Improvement in Fire-Escapes, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved fire-escape, the harness being shown as broken off and the rope removed; Fig. 2, a vertical longitudinal section of the same detached from the harness, and Fig. 3, a reduced side elevation of the apparatus represented as in position for use upon a rope, the rope being shown as broken off.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to that class of fire-escapes which are portable; and it consists in certain novel features, as hereinafter fully set forth and claimed, the object being to produce a simpler, cheaper, and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the body of the escape; B, the handle; C, the harness, and D the rope.

The body A consists of a metallic box, *x*, provided on each side with eyes *a* for the reception of rivets, by means of which it is secured to the harness C. The box *x* contains a vertically-arranged opening or hole, *z*, near one of its edges, which also extends horizontally across the top thereof and is adapted to receive the rope D. A cap, *b*, is secured to the top of the box *x* by means of bolts *d*, and is provided with a vertically-arranged and upwardly-curved opening, *z'*, the lower portion of which is adapted to register with the opening *z* when the cap is in position on said box.

The handle B consists of two vertically-ar-

anged metallic plates, which are semicircular in cross-section, one of said plates being pivoted at its lower end to the cap *b* at each side of the outer end of the opening *z'*, in such a manner that when said plates are brought together they will grasp the rope D, as shown in Fig. 3. The body A is also provided with a chamber, *g*, and vertically-arranged opening *i*, in which a bar, *h*, is fitted to slide. The bar is provided on its upper end with a head, *k*, which projects slightly into the horizontal portion of the opening *z*, and has its upper face beveled and serrated, as shown at *m*, Fig. 2. A stiff coiled spring, *p*, is disposed around the bar *h* in the chamber *g*, one end of said spring abutting against the head *k* and the other resting on a shoulder, *f*, the spring acting expansively to force said bar against the rope D when the escape is in use. A lever, H, provided at one end with a handle, *q*, and at the opposite end with a cam-shaped head, *r*, is pivoted at *t* to the lower end of the bar *h*, so that when its handle *q* is depressed the head *r* will act against the lower side of the body A and withdraw the head *k* of said bar from the opening *z*, thus permitting the rope D to pass freely through said opening.

The harness C, to which the body A is secured, as described, consists of a strap, *v*, adapted to be buckled around the waist of the wearer, and an auxiliary strap, *w*, secured to the strap *v* and provided with a snap-hook, *y*, which passes between the legs of the wearer and is secured by its hook in a ring, *l*, attached to the strap *v* at the rear.

I do not confine myself to the use of the harness described, as a harness of any construction that will properly support the user and to which the body A can be securely attached may be employed, if desired.

My improvement is designed to be placed in a room in any convenient position for immediate use, one end of the rope D being secured within the room near the window and the apparatus adjusted by passing the rope between the plates forming the handle B and through the openings *z'* in the cap *b* and body A, when it is securely held in any desired position by the pressure of the serrated head *k*.

In the use of my improvement the harness

is first adjusted upon the person of the wearer, as described, who then grasps the handle B with the left hand and swings from the window. The rope is prevented from accidentally slipping through the body of the apparatus by the pressure of the bar *h* against it, and also by frictional contact with the handle, so that by depressing the handle *q* of the lever H and relaxing the grasp on the handle B the body A may be permitted to slide down the rope at any desired rate of speed, thereby enabling the user to descend in safety to the ground.

It will be obvious that the speed with which the person descends can be easily regulated by the handle B and also by the lever H, and if through accident the lever is at any time released the bar *h* will be immediately forced against the rope and stop the descent of the body A, and consequently of the person using the apparatus.

Having explained my invention, what I claim is—

1. In a device of the character described, the combination of the following instrumentalities, to wit: a body provided with an opening for receiving the rope, a cap bolted to said body and provided with an opening for the rope, the opening in the cap registering with that in the body, a handle consisting of two disks or parts pivoted, respectively, on each side of the opening in said cap, a vertically-arranged bar disposed in a chamber and hole in said body, and having a serrated head projecting into the opening in said body, a coiled spring disposed around said bar within said chamber and adapted to force it into said opening, a lever provided with a cam-shaped head and pivoted

to the lower end of said bar, a harness connected with said body for securing the same to the person, and a rope inserted in the opening in said body and cap, substantially as set forth.

2. In a fire-escape, the body A, provided with the chamber *g*, hole *i*, and opener *z*, the cap *b*, having the opening *z*² and secured to said body, the bar *h*, spring *p*, pivoted cam-lever H, harness C, and rope D, combined and arranged to operate substantially as described.

3. In a fire-escape, the handle B, composed of two disks and pivoted to the cap *b*, having the opening *z*², in combination with the body A, having the opening *z*, chamber *g*, and hole *i*, the bar *h*, disposed in said hole and chamber and provided with the beveled serrated head *k* and coiled spring *p*, the lever H, having the cam-shaped head *r* and pivoted to said bar, the rope D, and harness C, substantially as set forth.

4. In a fire-escape of the character described, a body having a circuitous opening for the rope, a handle pivoted at one end of said opening, said handle consisting of two disks concave in cross-section and adapted to clasp said rope, a brake-bar fitted to slide within said body and provided with a spring adapted to press it against the rope with sufficient force to prevent the body from sliding thereon, a cam-lever pivoted to said bar and adapted to withdraw it from the rope, and a harness for securing said body to the person, substantially as set forth.

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Witnesses:

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