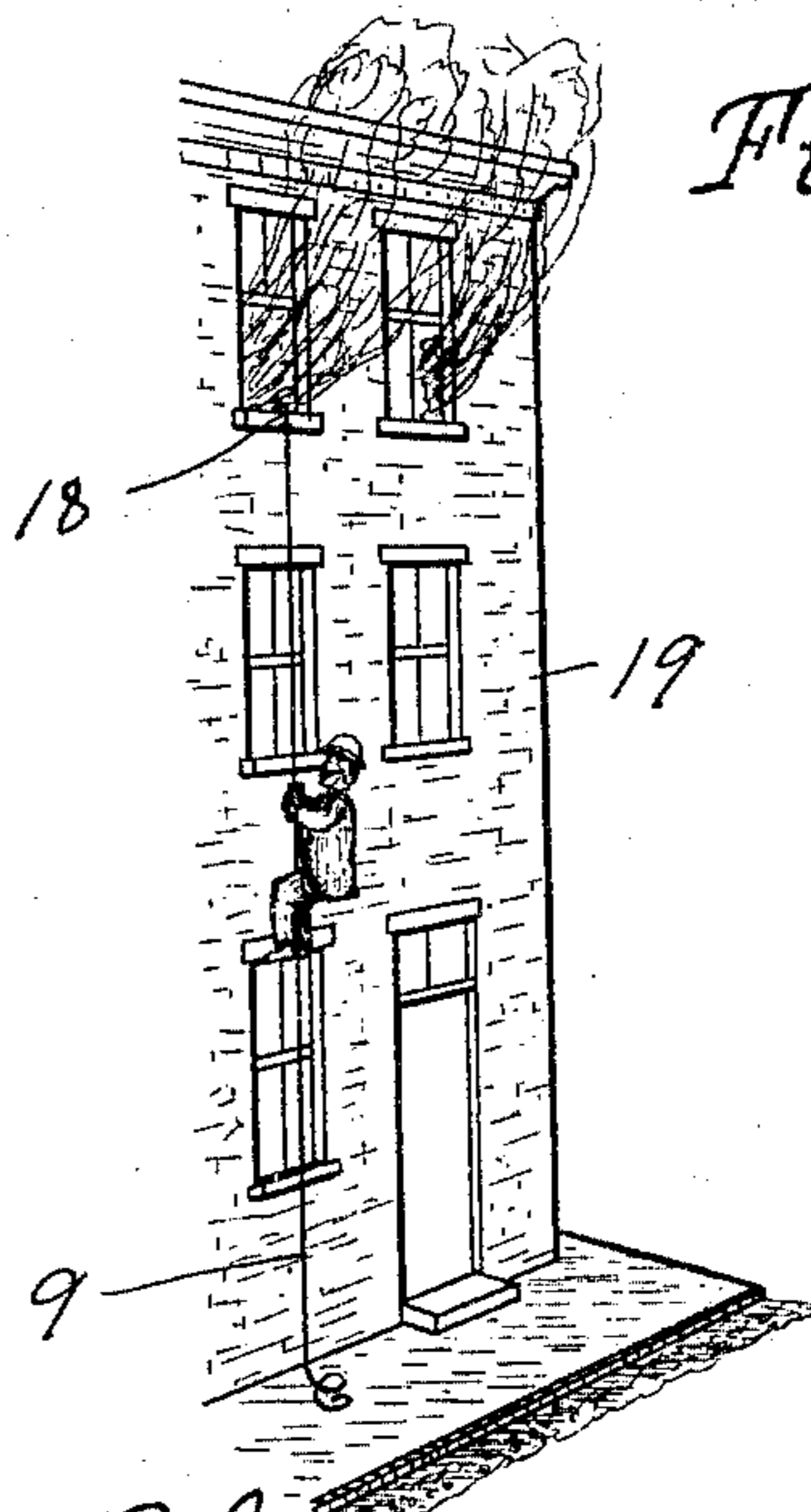
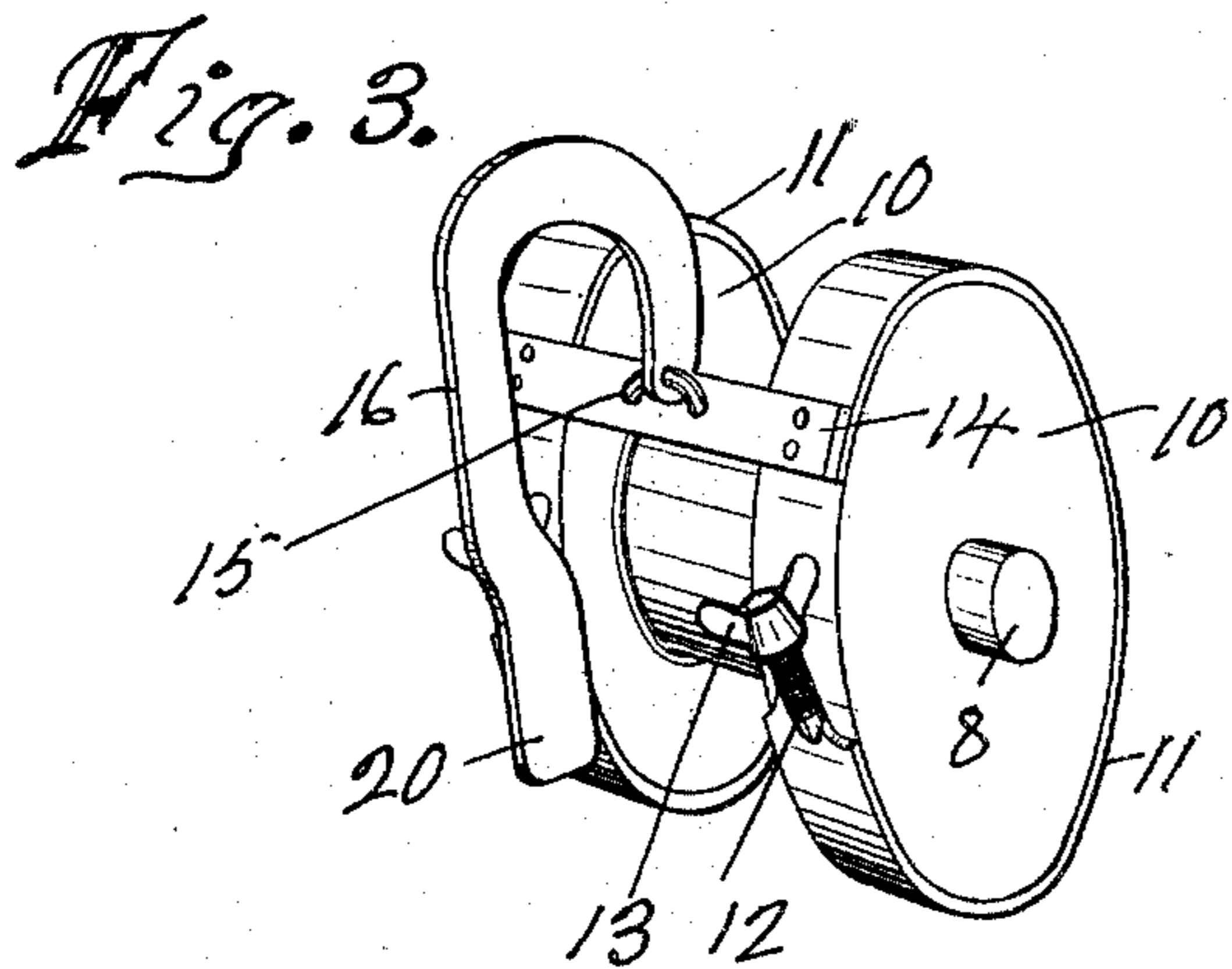
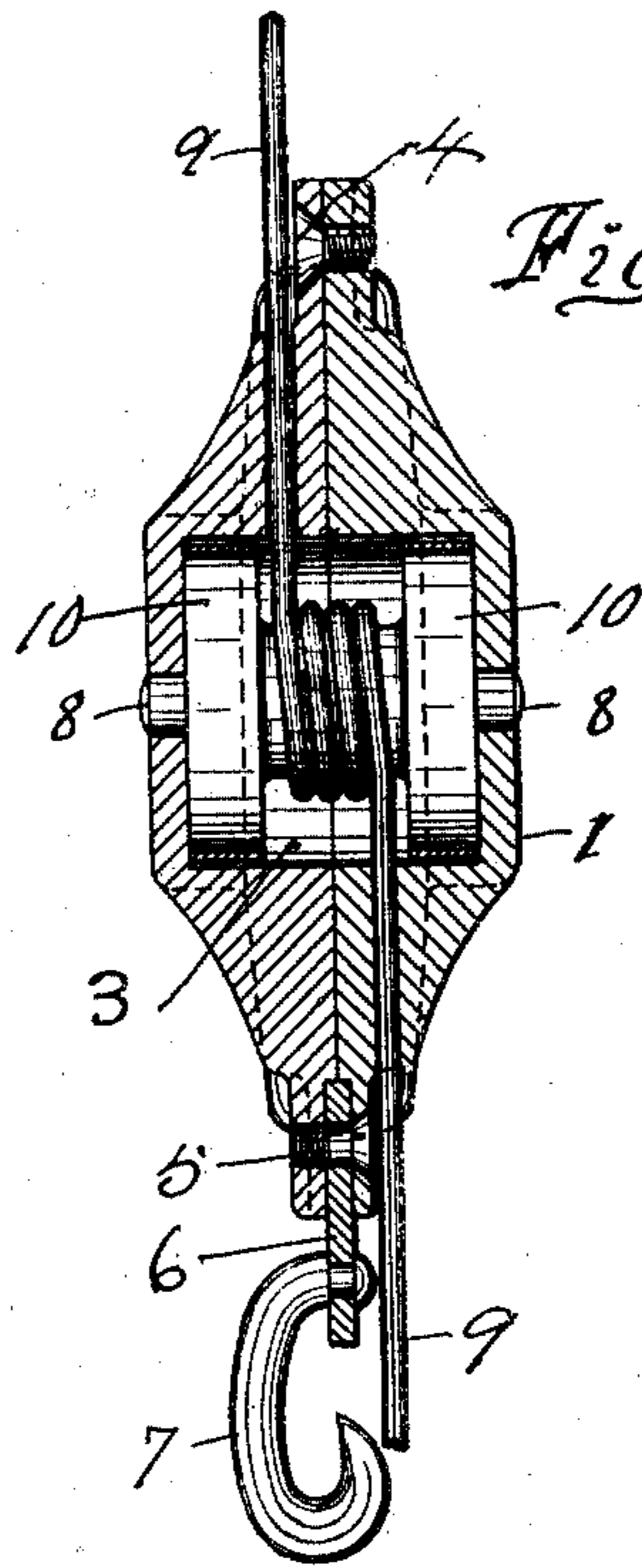
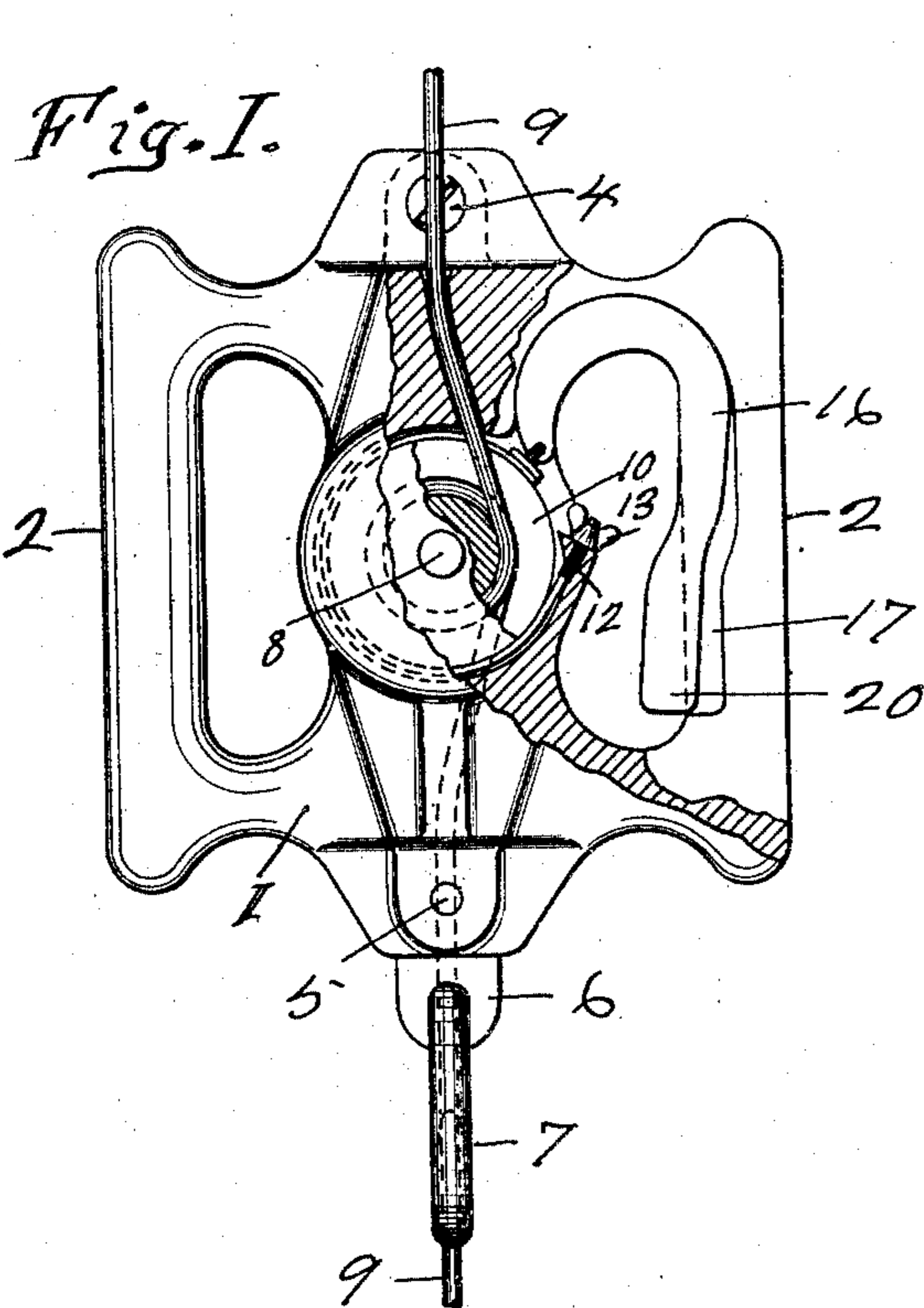


J. C. F. SPRANKLE.
FIRE ESCAPE APPARATUS.
APPLICATION FILED JUNE 15, 1908.

Patented Aug. 3, 1909.

929,721.



WITNESSES:

J. M. Dickens.

Augusta Viberg.

John C. F. Sprankle INVENTOR.

BY *Chapin & Denny*

His ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN C. F. SPRANKLE, OF FORT WAYNE, INDIANA.

FIRE-ESCAPE APPARATUS.

No. 929,721.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed June 15, 1908. Serial No. 438,447.

To all whom it may concern:

Be it known that I, JOHN C. F. SPRANKLE, a citizen of the United States, residing at Fort Wayne, in the county of Allen, in the State of Indiana, have invented certain new and useful Improvements in Fire-Escape Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in fire-escape apparatus.

The primary object of my present invention is to provide a cheap, simple, efficient and reliable fire-escape apparatus having a weight of less than seven pounds, and a tested strength of over eight hundred pounds, and of sufficient compactness to be conveniently carried in an ordinary grip or suit case, and so constructed and arranged that the operator can make use of it on a moment's notice without the least delay.

My invention consists of a hollow two-part casing of suitable metal, preferably aluminum, having vertical passages for a suitable cable and provided upon its lower end with a proper hook; a reel-drum rotatably mounted within the hollow casing; a steel or bronze cable coiled about said drum and provided upon its upper end with a suitable fastening means, the said casing being adapted for a descent upon the cable; and means for regulating the speed of such descent.

The novel features of my present invention reside in the construction and relative arrangement of the co-acting parts, whereby the operator, who is supported by the device, can conveniently and securely regulate his descent thereon upon any length of cable and from any desired height of building.

Similar reference numerals indicate like parts throughout the several views of the drawings in which—

Figure 1, is a side elevation of my invention partly in section and partly broken away to show the general contour of the casing and the relative arrangement of the operative parts therein, and particularly the means for regulating the descent of the apparatus upon its supporting cable. Fig. 2 is a vertical central section of the same showing the manner of securing the two parts or sections of the

casing, and showing the manner of mounting the reel-drum within the casing, and also showing the manner of securing the apparatus upon the cable. Fig. 3 is a perspective detail somewhat enlarged of the reel-drum and the brake mechanism for regulating the speed of descent. Fig. 4 is a fragmentary perspective view of a building showing the manner in which my invention is employed in actual practice.

The casing 1 is formed of two identical parts or sections, which when united form two similar lateral handles or hand holds 2 and is provided with a hollow interior 3 in which the reel drum is arranged. These casing sections are rigidly secured together at their top and bottom by proper holding screws 4 and 5 respectively. In the lower end of the casing 1 is rigidly fixed a pendent hanger plate 6 by means of the screw 5. This plate has a suitable hook 7 secured to its lower end which is adapted to be fastened to any suitable belt, not shown, which is to be fastened around the body of the operator in the usual and well understood manner of employing a belt in this class of apparatus.

The reel-drum is rotatably mounted in the interior 3 of the casing by means of the short journals 8, which are loosely mounted in opposite openings in the respective casing sections, as shown in Fig. 2. This reel-drum has a section of reduced diameter at its central portion about which the cable 9 is given a proper number of coils or turns to afford the proper amount of friction, preferably three turns as shown. This reel has two identical portions 10 at the opposite sides of the reduced portions, which portions 10 are provided with suitable spring steel brake-straps 11 arranged upon the perimeters thereof, in any suitable manner. These brake straps are rigidly fixed to the casing at one end by means of adjusting screws 12 having a wing nut 13 by which the tension of these brake straps can be regulated at pleasure. The upper ends of these brake straps are rigidly connected by means of the cross-plate 14, Fig. 3, having at or near the middle of its length an eye or staple 15 in which the upper curved end of the brake-lever 16 is pivotally mounted. This brake-lever normally rests in the suitable lateral recess 17 in one of the handle portions 2, as shown in Fig. 1, and is adapted to regulate the friction of the brake-strap upon the per-

imeter of the reel drum in the manner hereafter described.

The cable 9 is of any suitable metal and any proper construction to give it the required strength and may be of any desired length for operation upon any desired height of building, and may be, and preferably is, provided upon its upper end with a suitable hook 18, Fig. 4, for securing the same to window sill or other portion of the building in use.

The operation and manner of employing my invention thus described is obvious and briefly stated is as follows: Assuming the operator to be occupying a room on the third floor of the hotel building 19, upon being awakened by the alarm of fire therein, he secures the upper end of the cable to the window casing, or other suitable support, with the apparatus in position at the upper end of the cable which is then let down to the ground. The operator now fastens any suitable belt about him in any proper manner and then secures the same to the hook 7, after which he lets himself down upon the cable by holding to the handles 2 with one hand in contact with the brake-lever 16, by which means he regulates the speed of descent upon the cable. When he desires to lessen the speed of descent he simply presses firmly with one hand against the inner edge of the lower end 20 of the brake-lever 16 which will thereby tighten the two brake-straps 11 upon the reel-drum and thus reduce the speed by their friction upon the drum. Practical tests show that an ordinary operator can so operate this brake mechanism as to bring himself to a standstill at any stage of his descent upon the cable, and can also regulate the speed of descent at pleasure. When he desires to accelerate his speed of descent he simply re-

leases proportionately his hold or pressure upon the brake-lever 16, as described.

The described brake mechanism, particularly the brake-straps 11, can be so arranged as to automatically afford a certain predetermined speed of descent for any predetermined weight of the operator, if desired, by regulating the tension of the brake-straps 11 on the perimeter of the reel, though I prefer that the operator should regulate his own speed of descent as the most reliable and satisfactory mode of operation.

Obviously the mere contour of the containing casing may be varied at pleasure without departing from the spirit of my invention. When my invention is carried in a grip or otherwise stored the cable ends can be conveniently wrapped around the casing to arrange the parts in the most compact and convenient form.

Having thus described my invention and the manner of operating the same, what I desire to secure by Letters Patent is:

A fire escape, comprising a cable and a drum therefor; a hollow casing inclosing said drum in its central portion and having on each side thereof loop portions forming hand-holds; and a strap-brake encircling the drum and controlled by a hook-shaped lever spanning the opening of one loop and the end of the hook being attached to the brake strap and the shank thereof lying adjacent the hand-hold on that side and so arranged that it may be grasped with such hand hold and the brake band tightened by tightening such grasp.

Signed by me at Fort Wayne, Allen county, State of Indiana, this 13th day of June, 1908.
JOHN C. F. SPRANKLE.

Witnesses:

AUGUSTA VIBERG,
WATTS P. DENNY.