

No. 627,347.

Patented June 20, 1899.

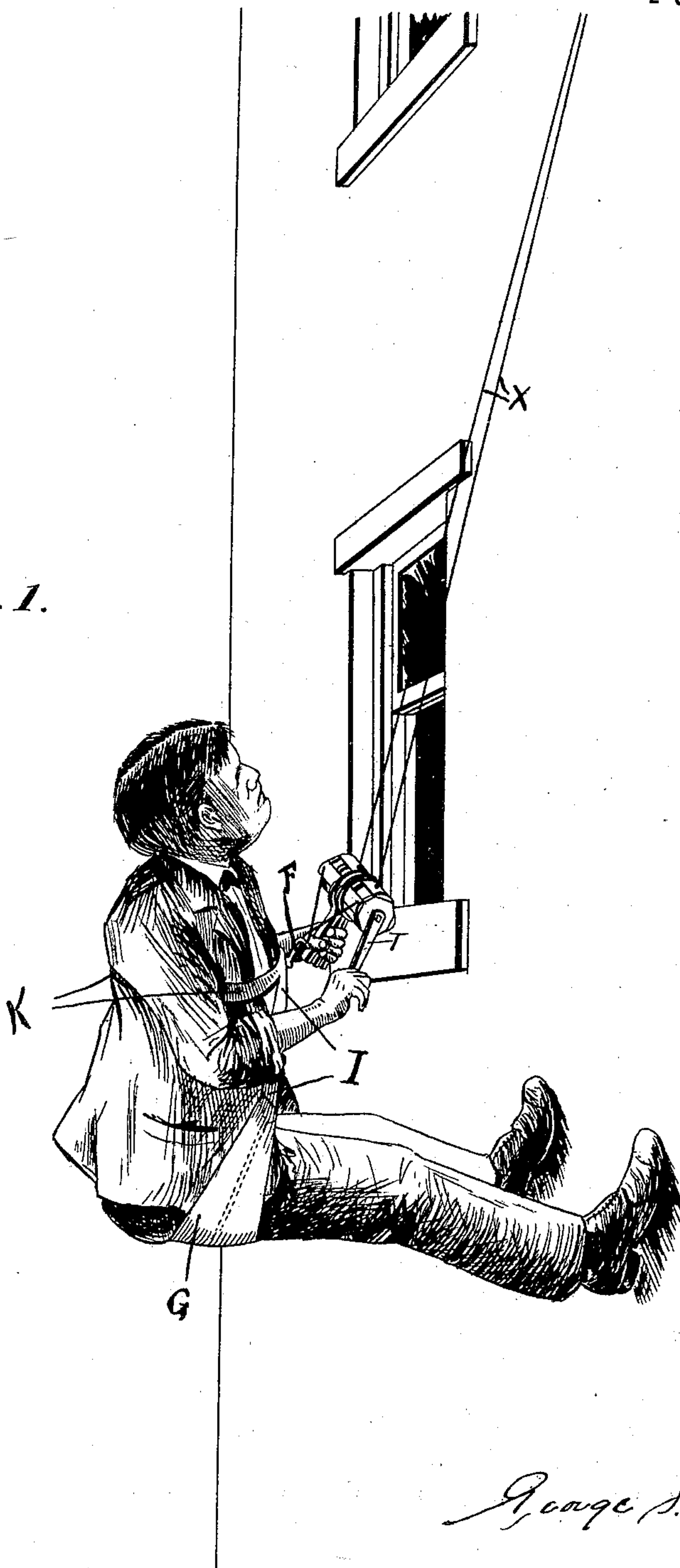
G. S. MCGEE.
FIRE ESCAPE.

(Application filed Nov. 27, 1898.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



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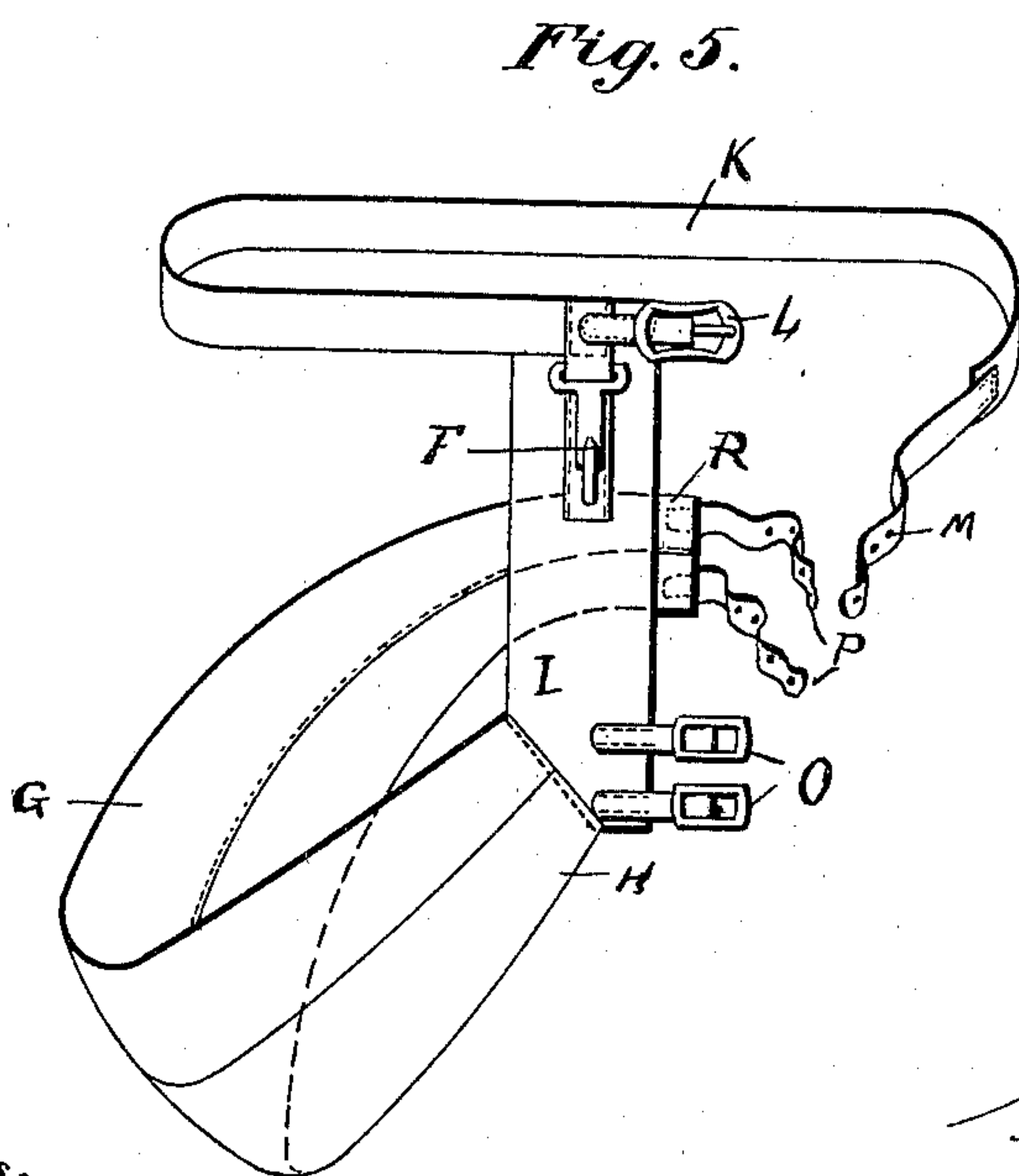
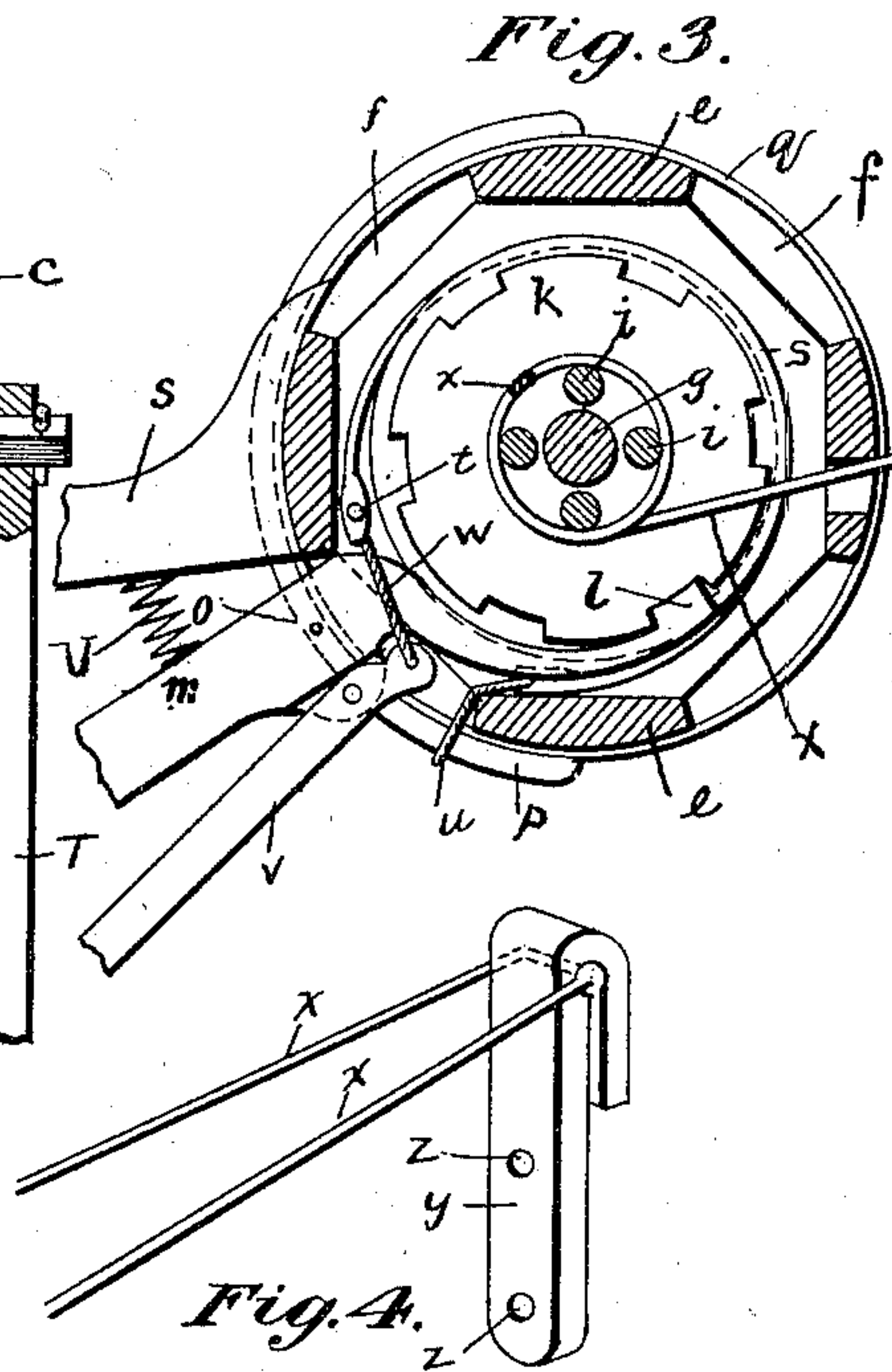
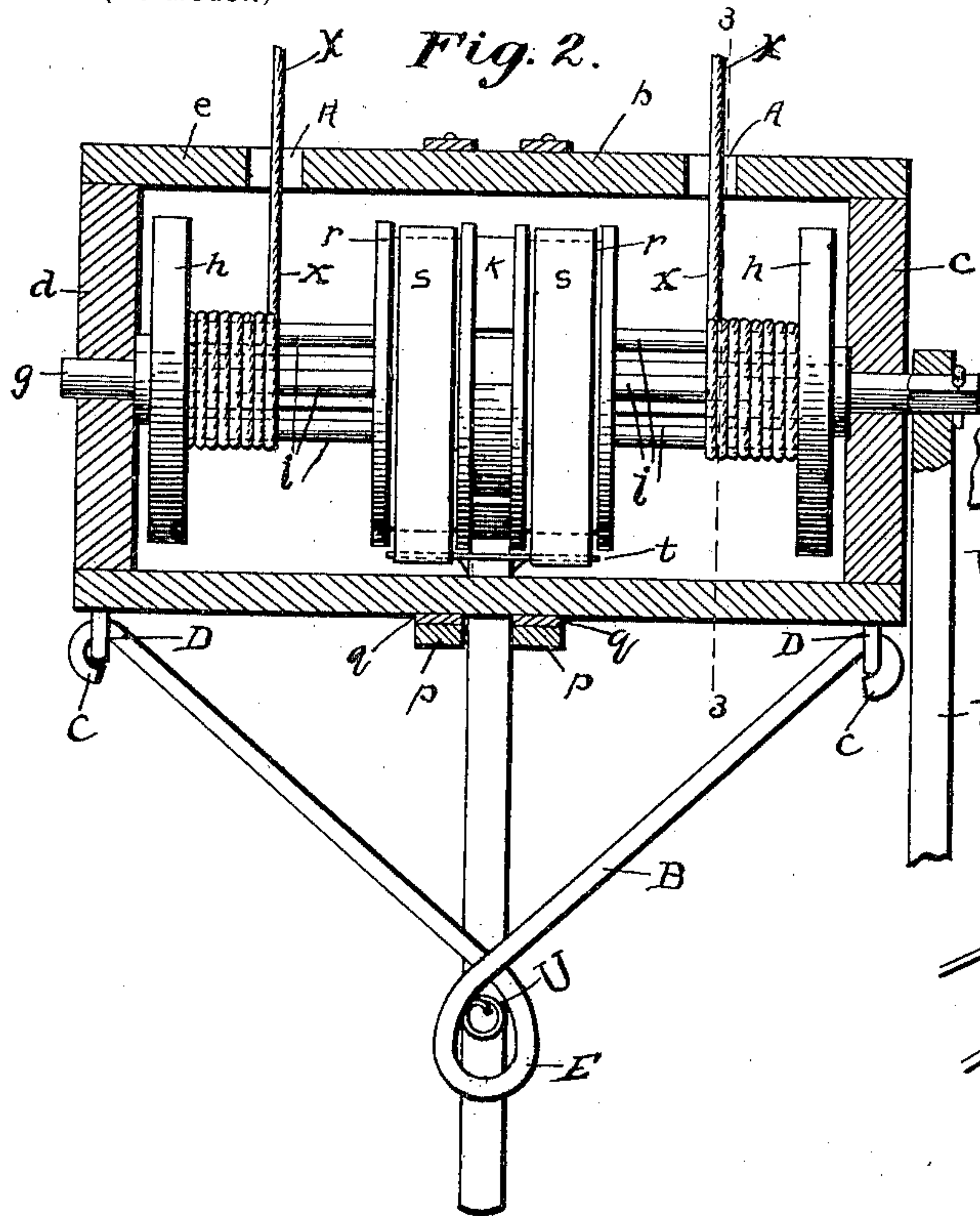
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

GEORGE S. MCGEE, OF BRYANT, ALABAMA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 627,347, dated June 20, 1899.

Application filed November 27, 1896. Serial No. 613,569. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. MCGEE, a citizen of the United States, residing at Bryant, in the county of Jackson, State of Alabama, have
5 invented certain new and useful Improvements in Fire-Escapes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

My invention relates to fire-escapes in general, and more particularly to the form known as "portable" fire-escapes, the object being
15 to provide a device of this nature which may be carried from place to place and may be readily applied to lower a person from a window at any height.

In the drawings forming a portion of this specification, and in which like letters of reference indicate similar parts in the several
20 views, Figure 1 is a perspective view showing the device in use. Fig. 2 is a longitudinal section of the casing of the reel, within which the parts are shown in elevation. Fig. 3 is a
25 section on line 3 3 of Fig. 2. Fig. 4 is a detail view showing the means for fastening the cord to a suitable support previous to operation of the device, and Fig. 5 is a perspective view of the sling employed by me.

Referring now to the drawings, in constructing a device in accordance with my invention I construct a casing *b*, comprising end pieces
30 *c* and *d*, connected by slats *e*, separated by interspaces *f*. Within this casing and journaled in the end pieces *c* and *d* is a shaft *g*, upon which is mounted adjacent each end a disk *h*. These disks are perforated adjacent
35 the axle *g* to receive rods *i*, forming, in effect, an angular drum, as will be readily understood. Centrally of this drum is arranged a ratchet-wheel *k*, adapted to be engaged by a
40 detent *l*, provided with an operating-lever *m*, pivoted at *o* to flanges *p*, secured to hoops *q*, which latter encircle the casing and serve to strengthen it.

On either side of the ratchet-wheel *k* is a friction-drum *r*, provided with friction-bands
45 *s*, one end of each of said bands being connected to the adjacent end of the opposite band through the medium of a rod *t*. The opposite ends of the bands *s* are connected

in the casing in any desired manner, such as through the medium of cords or wires *u* passed through perforations in the ends of the bands and encircling the adjacent flanges *p*. 55

Pivoted to the lever *m* is a second lever *v*, the inner end of which is connected to the bar *t* through the medium of a cord or other
60 suitable connection *w*, one end of which passes on either side of the detent-lever.

A life-line *x* has its ends secured about the rods *i* on either side of the ratchet-wheel and friction-drums, a portion of said line being
65 wound upon the drum-rods, as shown in Figs. 2 and 3. The slack of this line, which is in the form of a loop, is passed within the inclosure of a bracket *y*, as shown in Fig. 4, which bracket is secured to a window-sill or
70 other suitable portion of a building through the medium of screws or bolts passed through perforations *z* therein. Perforations *A* are formed in one of the slats *e* of the casing, through which the line *x* passes, the bounds
75 of which perforations act as guides.

Pivotally secured to the opposite side of the casing from the perforations *A* is a wire *B* or
80 other suitable connection, attached to the casing through the medium of hooks *C*, engaging rings or staples *D*, secured to the latter. The wire *B*, which is in the form of an angle, is divided at its apex, with a loop *E*, adapted
85 to receive a snap-hook *F*, secured to a sling adapted to receive a person. This sling comprises a seat portion *G*, having narrowed extremities, one end *H* of which is secured at an angle to a vertical portion *I*, the upper
90 end of which is provided with a transversely-arranged belt *K*, one end of which is provided with a buckle *L*, the tongue of which is adapted to engage perforations *M* in the opposite end of the belt. Secured also to the
95 lower end of the upright portion *I* are a pair of buckles *O*, adapted to receive straps *P*, secured to the free end *R* of the side portion *G*.

Having thus described my invention, the operation thereof is as follows: The bracket
100 *y* being securely fastened in place to a suitable support, the line *x* is slipped within the loop of its turned-over end, and the sling is put in place by arranging the seat portion *G* as shown in Fig. 1, the upright portion *I* extending vertically of the front of the person,

the straps P engaging the buckles O and the belt K passing along beneath the arms and engaging the buckle L. The snap-hook F is then applied to the loop E, and the operator, gripping the lever *v* and the handle S, which latter is fixed rigidly to the casing, climbs out of the window and is ready to descend. By pressing upon the lever *v* the brake or friction bands *s* engage tightly the peripheries of the drums *r*, so as to prevent the drum-rods *i* revolving, and upon further pressure of the lever it engages the lever *m* and raises the detent *l* from the ratchet-wheel *k*, releasing the said drum-rods, which latter will then begin to revolve at a speed dependent upon the pressure given to the lever *v*, and the line *x* gradually unwinding from said rods the casing, and therewith the sling and operator, will gradually descend. If it is desired to stop at any time, the levers are released, when the detent will engage the ratchet-wheel and will prevent revolution of the drum-rods. It will thus be seen that it is impossible to secure excessive rapidity of descent, as when the friction-band is released the detent engages the ratchet-wheel, and before disengaging the detent the brake-lever must be moved to such an extent as to have a braking effect upon the friction-drums.

After the device has been used and it is desired to wind the line upon the drum this may be readily accomplished through the medium of a crank T, secured to one extremity of the axle *g*.

In order to hold the detent normally in engagement with the ratchet-wheel and to insure engagement with these elements when the lever *m* is released, a spring U is arranged between the handle S and the lever *m*, tending to normally hold them upright.

Not only can this device be employed in descending, but also, as will be readily understood, by winding upon the crank T the line will be wound upon the drum-rods, with the result that the apparatus, and therewith the sling and its occupant, will be gradually raised.

It will be readily understood that I may vary the specific form and arrangement of the elements herein shown and that I may employ any desired material without depart-

ing in any way from the spirit of my invention.

Having thus described my invention, what I claim is—

1. A device of the class described comprising a casing, a winding-drum, a line thereon, a ratchet-wheel carried by the drum, means for engaging said ratchet-wheel to hold the drum against revolution, a friction-drum on each side of the ratchet-wheel, friction-straps mounted on the casing and encircling the drums, each strap having one end fixed, a transverse rod connecting the opposite ends of the straps, a lever adapted to operate the straps and connections between said lever and the transverse rod.

2. A device of the class described comprising a casing having a shaft mounted therein, a ratchet-wheel mounted on the shaft midway of its ends, means for engaging said ratchet to hold the same from revolution, a winding-drum arranged at either side of and attached to said ratchet-wheel, a cord mounted on each of said winding-drums, friction-straps encircling the friction-drums, each of said straps having an end attached to the casing, a transverse rod connecting the opposite ends and a lever for operating said straps having connection with the transverse rod.

3. A device of the class described having a handle depending therefrom, a shaft mounted in the casing having means for revolving the same arranged exteriorly of said casing, drums mounted on the shaft and having connection therewith a ratchet-wheel, a lever pivoted to the casing and having an extremity entering the casing to engage the ratchet-wheel and an extremity protruding therefrom and adjacent the handle, a second lever pivoted to the first-named lever extending parallel therewith whereby the two may be operated simultaneously, and friction-bands encircling the drums, each having an end attached to the casing and an end attached to the second-named lever.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE S. MCGEE.

Witnesses:

B. J. SWANGER,
S. L. BROWN.