

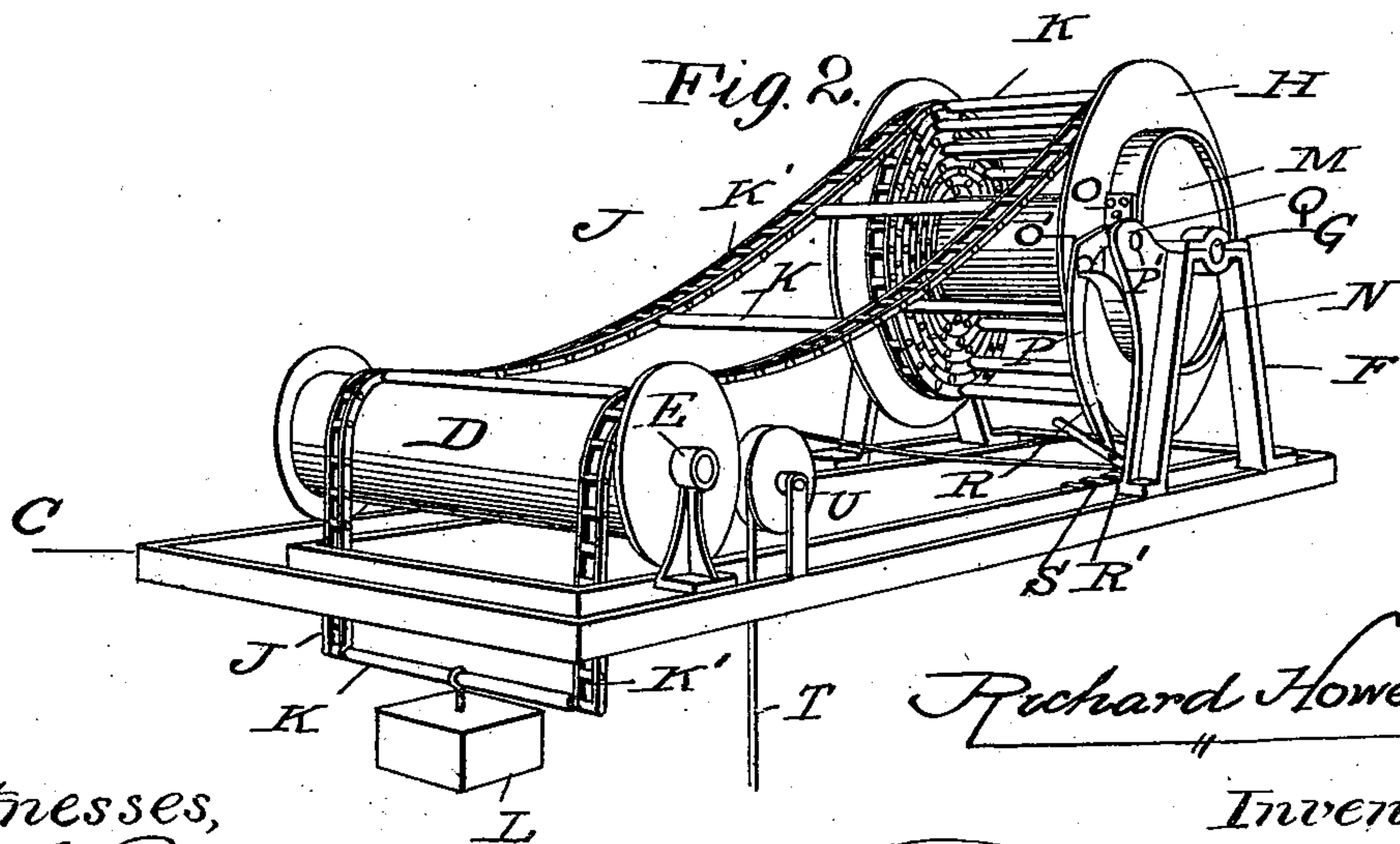
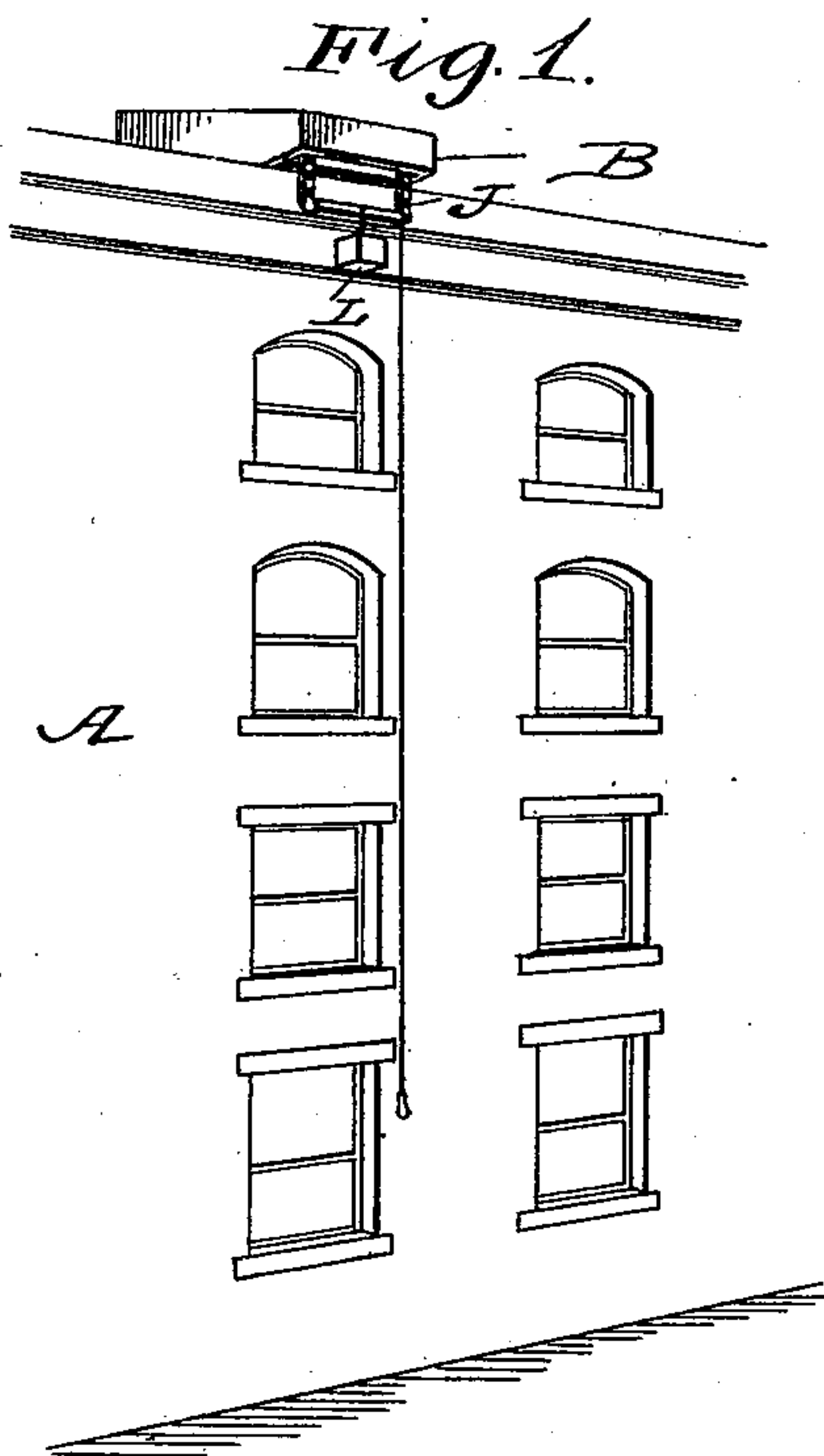
(No Model)

2 Sheets—Sheet 1.

R. HOWELL
FIRE ESCAPE.

No. 554,515.

Patented Feb. 11, 1896.



Witnesses,
Chas W. Parker
May E. Moore.

Richard Howell,
Inventor,

by *Opm N. Moore,*
Attorney.

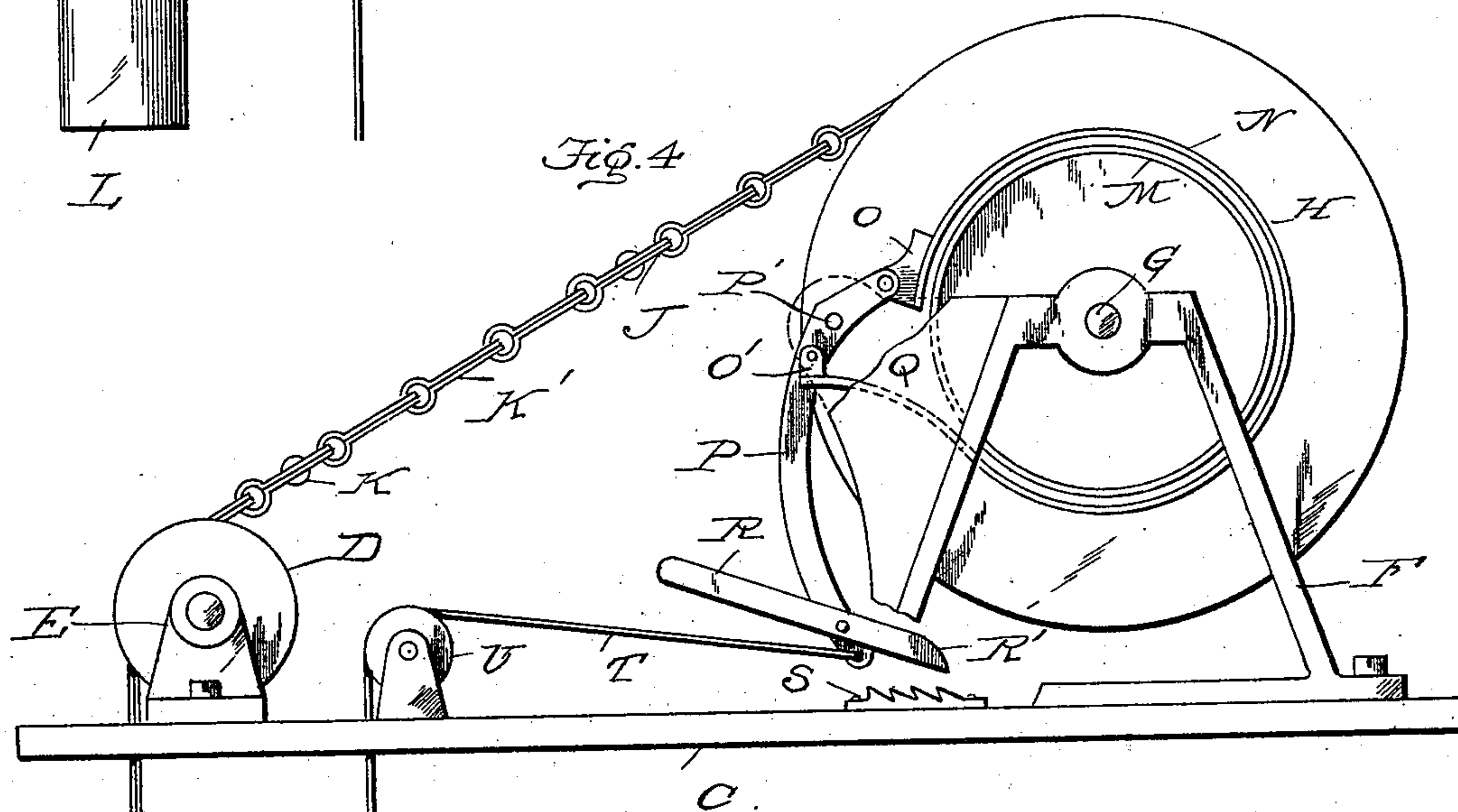
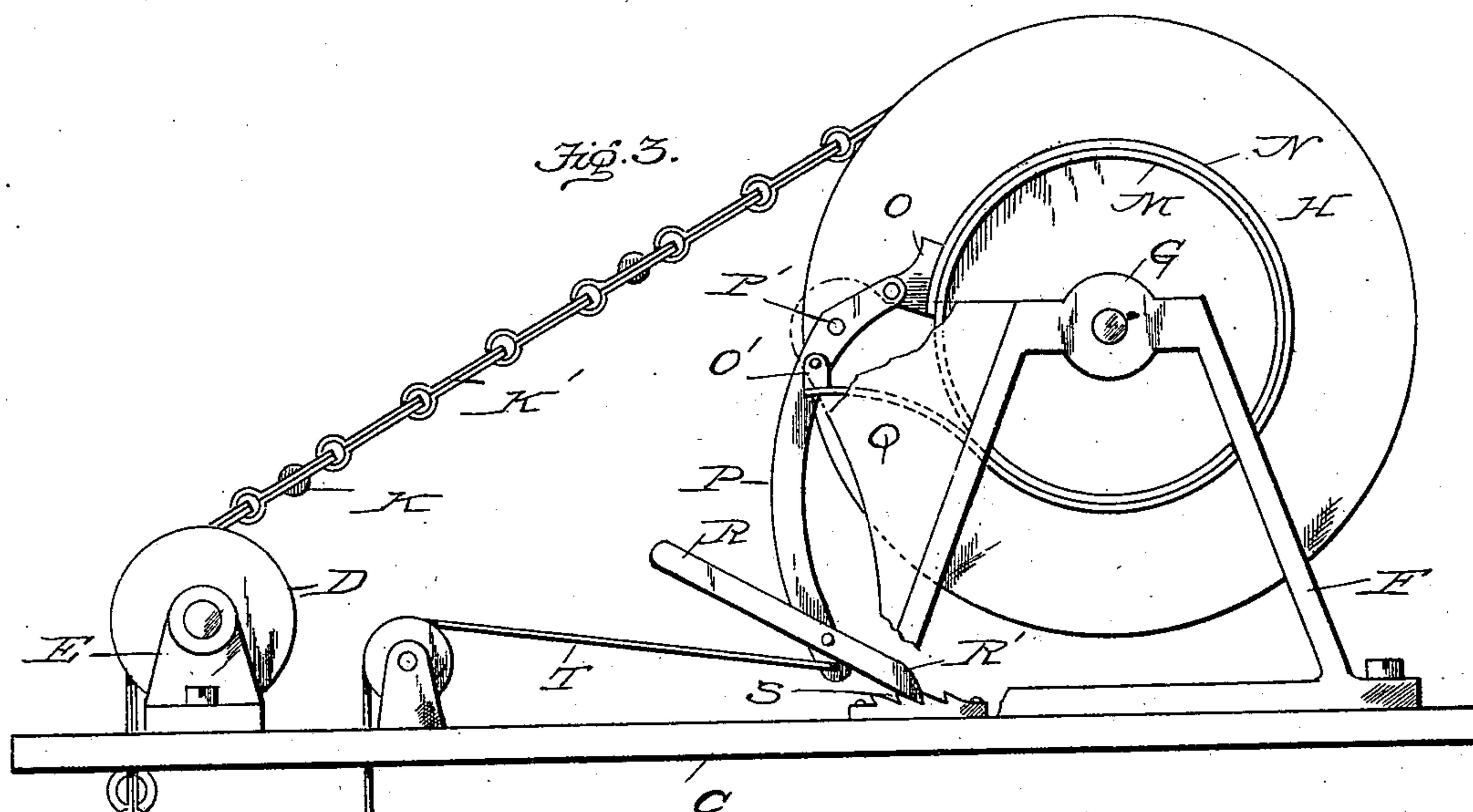
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Att'y.

UNITED STATES PATENT OFFICE.

RICHARD HOWELL, OF NEW YORK, N. Y.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 554,515, dated February 11, 1896.

Application filed March 28, 1895. Serial No. 543,522. (No model.)

To all whom it may concern:

Be it known that I, RICHARD HOWELL, a citizen of the United States, residing at New York, in the county of New York and State of New York, have 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 appertains to make and use the same.

My invention relates to improvements in fire-escapes, and the object of my invention is the provision of a simple, durable, and inexpensive fire-escape which can be easily applied to a structure and occupy a small amount of space and which will not mar or deface the building, which will be easy to manipulate and under complete control of the user, and which will be thoroughly efficient and practical.

The invention consists of a fire-escape embodying novel features of construction and combination of parts, substantially as disclosed herein.

Figure 1 represents a view of a building or structure with my fire-escape applied; and Fig. 2 represents a perspective view, on an enlarged scale, of the fire-escape, the casing being removed. Fig. 3 represents a side view of my improved fire-escape with the brake applied as the escape is in normal position. Fig. 4 represents a similar view with the parts in the position they assume when the escape is in use and the brake is released.

In the drawings, A designates a building or structure, and B designates the fire-escape placed preferably on the roof thereof.

The mechanism is made preferably entirely of metal, as cast-iron, and the frame or base C is of rectangular open form, having at its forward portion the guiding-drum D, mounted in bearings E, and at the rear of the frame are the uprights or standards F, having bearings G for the ladder-carrying drum H, upon which is wound the ladder J, made of metal cross bars or rungs K, and flexible or sprocket-like chains K', which receive the ends of the bars or rungs, and to the free end of the ladder is connected the balancing-weight L.

The ladder-carrying drum is provided on one side with a hub M, which is surrounded by the spring or band N. To the ends of the spring, at O and O', is connected the end of the lever P, fulcrumed at P', one of the stand-

ards being formed with an offset or arm Q to receive the fulcrum of the said lever. To the end of the lever is connected the arm R, having its lower pointed end R' engaging the rack S, and from the lower end of the lever P leads the controlling-cord T, which passes over the guide-pulley U, and thence down, where it will be within easy reach from the windows of the building, as clearly seen in Fig. 1.

In use the parts are in the position shown in Fig. 1, and the ladder-drum is retained by the friction-spring brake from accidental movement. It is simply necessary to draw upon the controlling-cord, which releases the detent and draws away the brake. The ladder will then gradually descend and can be used by the occupants. It will also be understood that the brake can be operated to control the descent of the ladder by means of the controlling-cord.

In Fig. 3 the parts of the fire-escape are in the position they assume when not in use and the spring N is bearing tightly against the hub on the ladder-drum and the arm or detent R holds the spring on the hub and prevents the drum from turning.

In Fig. 4 the cord has been drawn upon and the detent freed from the rack, which brings the spring away from the hub, and the drum can revolve and lower the ladder; also, the cord can be pulled upon, if desired, as the ladder descends to govern the speed of the descent, the manner of connection between the lever and ends of spring-brake causing this.

I claim—

A fire-escape consisting of the frame, the standards or supports thereon, the ladder, the drum carrying the ladder and mounted in the standards, the guide-drum at the other end of the frame, the hub on one side of the ladder-carrying drum, the band surrounding the hub and having its ends free, the lever fulcrumed on the standards near its upper end and connected to said band on each side of its fulcrum, the cord connected to the lower end of the lever, the arm or detent pivoted near the lower end of the lever and the rack engaged by said detent.

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

RICHARD HOWELL.

Witnesses:

W. A. WHEELER,
E. HALSEY BALL.