

(No Model.)

J. B. WETMORE.  
FIRE ESCAPE.

No. 602,673.

Patented Apr. 19, 1898.

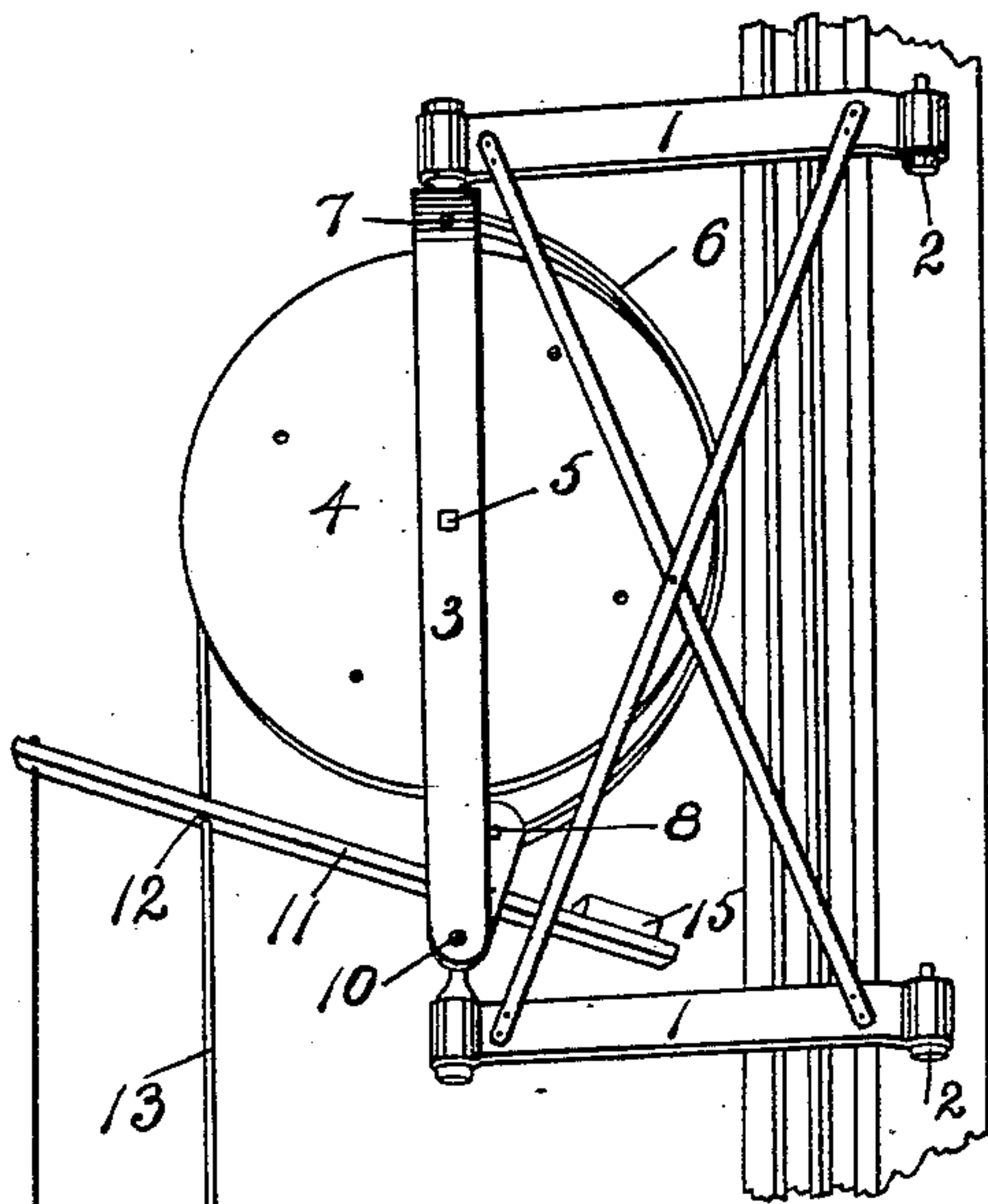


Fig. 1.

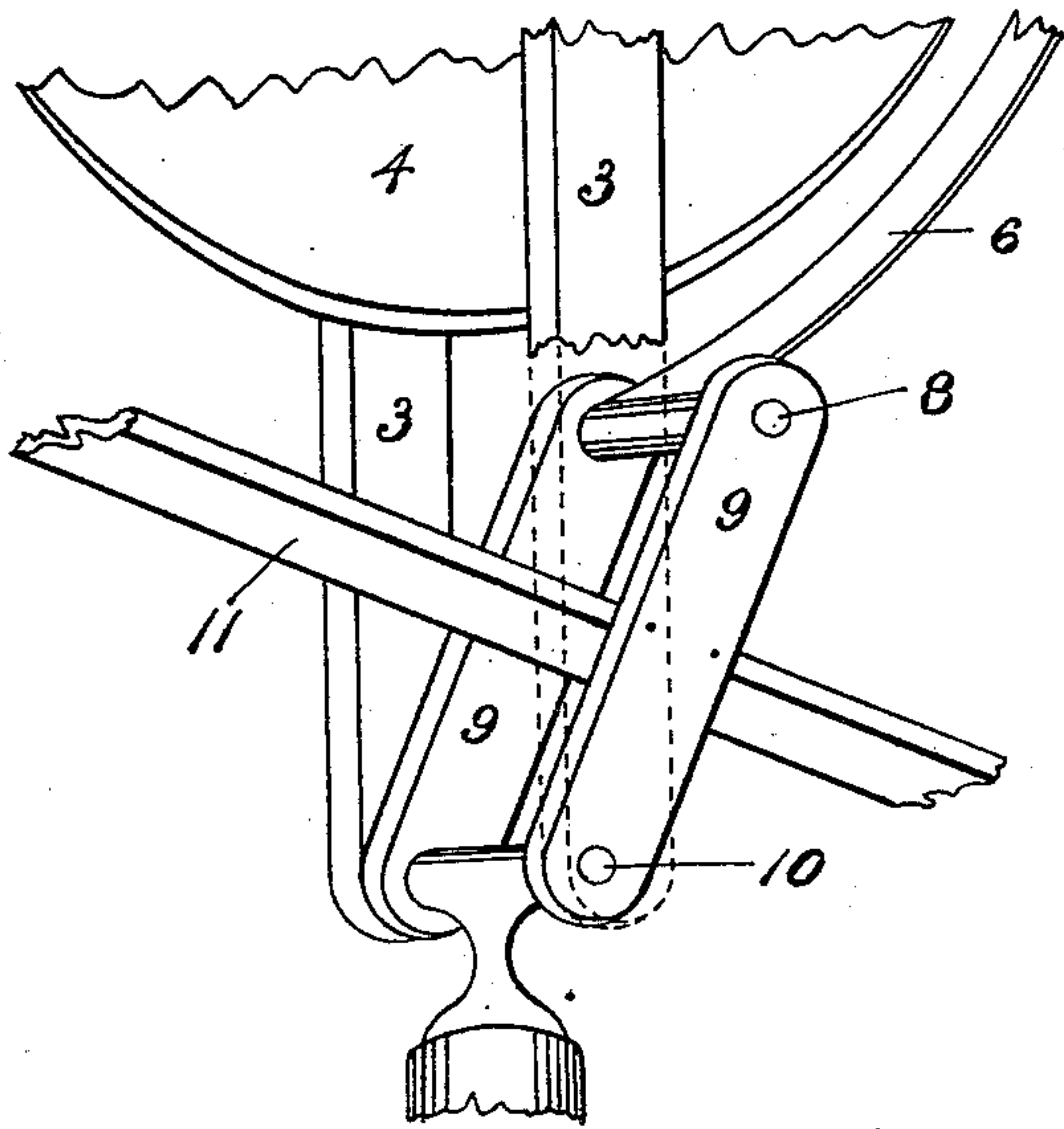


Fig. 2.

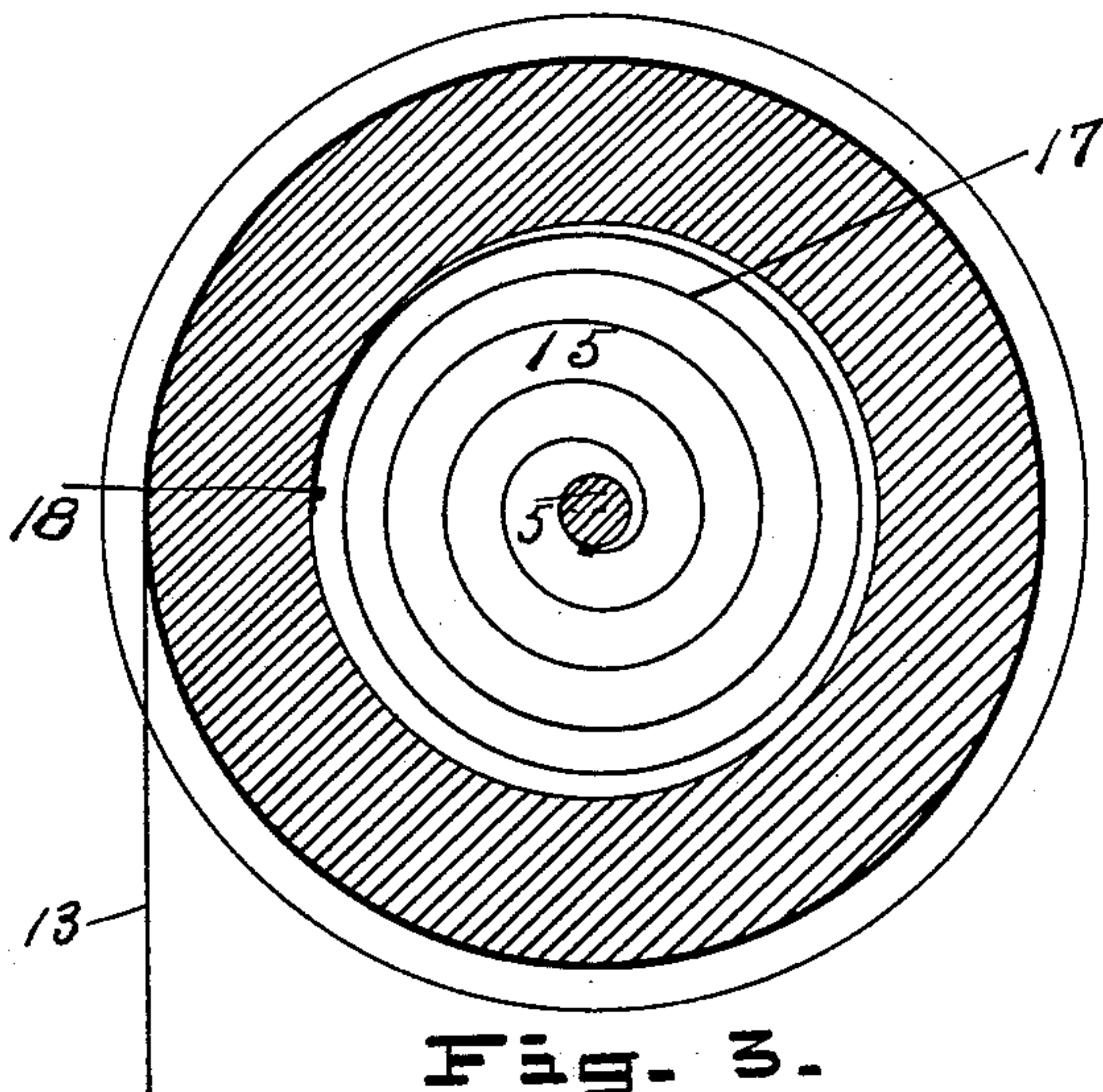
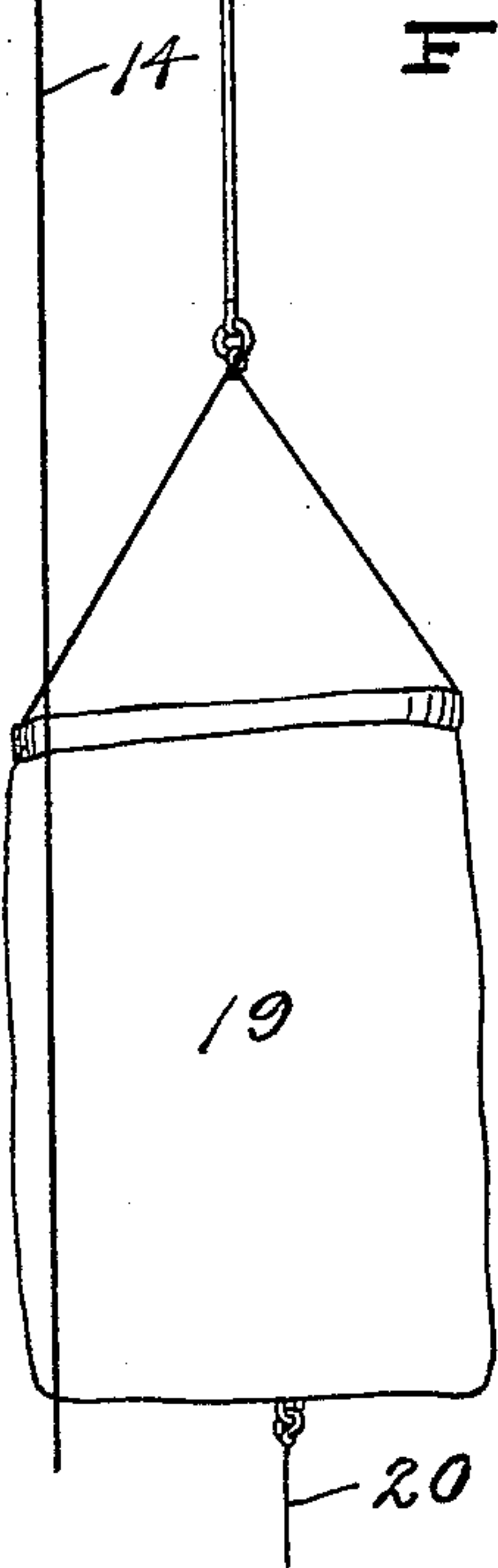


Fig. 3.

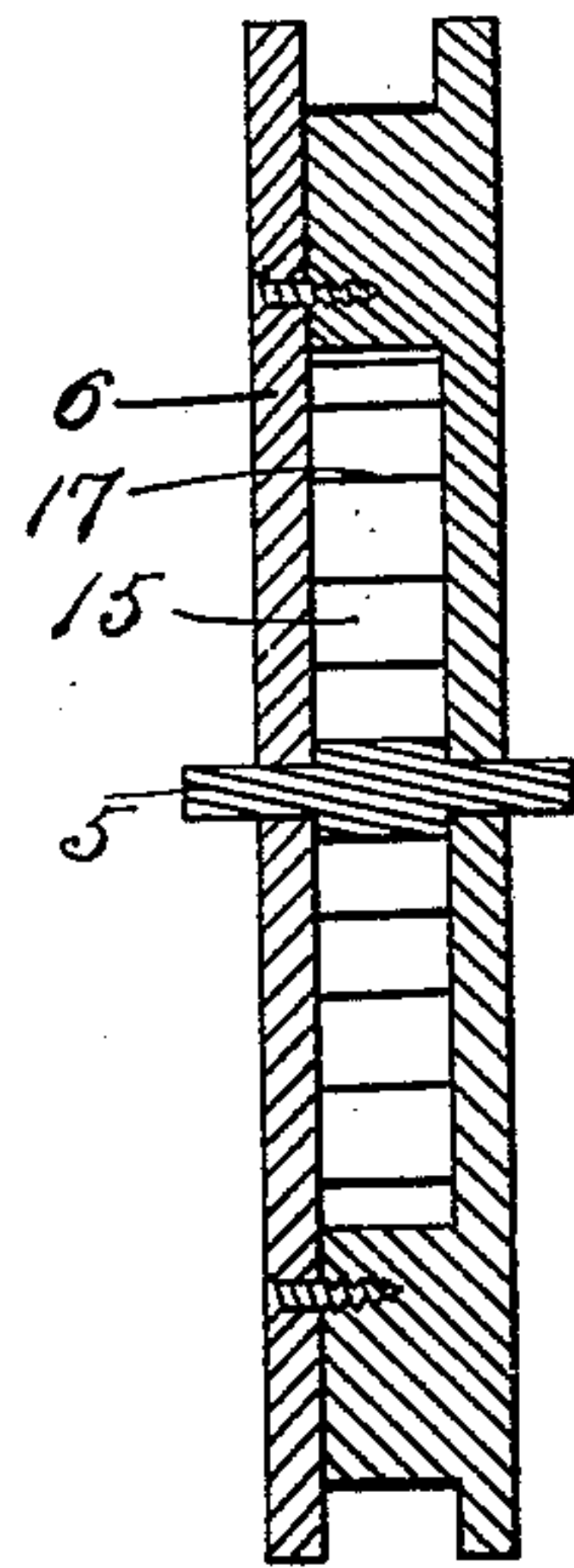


Fig. 4.

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# UNITED STATES PATENT OFFICE.

JOB B. WETMORE, OF WELLSBOROUGH, PENNSYLVANIA.

## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 602,673, dated April 19, 1898.

Application filed November 29, 1897. Serial No. 660,071. (No model.)

*To all whom it may concern:*

Be it known that I, JOB B. WETMORE, a citizen of the United States, residing at Wellsborough, in the county of Tioga and State of Pennsylvania, have invented certain new and useful Improvements in Fire-Escapes; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in fire-escapes of that class wherein is employed a brake-controlled reel suitably supported in the burning building and having wound on it a strip of flexible material for lowering the person or effects to be saved.

My object is to provide an apparatus that shall be economical in construction, simple and strong, easy and infallible of operation, and capable of automatically readjusting itself after one person has descended, so as to accommodate other persons. It is my experience that most of the escapes of the class in question have insufficient brake power, and, moreover, most of them make no provision for more than one descent. My aim is to obviate these objections, and to accomplish it I have devised the construction and arrangement of parts illustrated in the accompanying drawings, wherein—

Figure 1 is a general perspective view of my fire-escape as attached to a window-frame ready for use. Fig. 2 is a detail view of a part of my improved brake. Fig. 3 is a sectional view of the reel part proper transverse to the axis to show the interior mechanism for automatically rewinding the tape when it is once unwound; and Fig. 4 is another sectional view of the reel, taken radially, further illustrating the construction.

Where the same figures of reference are found in more than one view, they refer to the same parts.

Referring now to the drawings, 1 is a frame-work, of iron, suitably trussed to make it strong. This frame is pivotally supported on pivot-bolts 2, fixed permanently to the inner

face of the window-frame or in any other suitable position. The outer part of the frame 1 is made in the form of a fork 3, in which the reel 4 is mounted on a pivot at 5. A band-brake 6 has one end fixed in the upper part of the fork 3 at 7. The other end of the band is pivoted at 8, Fig. 2, between the upper ends of a pair of links 9. The lower ends of these links are in turn pivoted between the lower ends of the fork 3 at 10. Fixed between the links, about midway of their length and at right angles thereto, is the brake-lever 11. The forward end of this brake-lever 11 is perforated at 12 to furnish a guide for the tape 13, and to its extremity is fastened the trip-line 14. The rear end of the brake-lever is provided with a weight 15 to keep the band normally off the reel, or a spring may be used as an equivalent of the weight.

The reel is made, preferably, of wood, though it may be made of stamped metal, if desirable. In either case it is made with a circumferential groove, and with a circular cavity 15, Fig. 4, concentric with the pivot 5, access to which is given by taking off the side of the reel 16. In this cavity a coiled spring 17 is mounted, the inner end being fastened to the pivot 5, fixed immovable in the frame 3, and the outer end being fastened to the peripheral wall of the cavity at 18.

19 is a bag or other device for securely holding the person or property during the descent, and 20 a guide-rope fixed to the bag for regulating the descent from the ground.

The various parts of my invention being constructed and arranged as described, their operation is as follows: The fire-escape being adjusted in position either permanently or for the special occasion, it is swung out of the window, as shown in Fig. 1, so as to allow free descent. The resilience of the coiled spring 17 keeps the reel normally wound up. The person desiring to make the descent gets into the bag 19. It is necessary to keep the trip-rope 14 in tight tension, so that the brake may be kept in action to prevent a too-rapid descent. The rope may be held either by the person making the descent or by another person on the ground. It will be understood that the special construction of the brake, as shown in Fig. 2, allows such a powerful leverage to be brought to bear that the revolu-



tion of the reel can be regulated with precision and certainty. As soon as the passenger alights on the ground and the trip-rope is released the coiled spring 17, which has been 5 wound up during the descent, now causes the reel to wind up the tape 13 until the bag 19 again reaches the top. Thereupon another passenger may get into the bag and descend, the operation being repeated as often as desired. 10

It will be seen that my escape is operative without the coiled spring; but it is preferable to have the spring in order to give opportunity for repeated descents.

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

1. In a fire-escape, the combination, with a reel, a flexible tape wound thereon and a receptacle for a person or baggage at the free 20 end of the tape, of a brake adapted to control the unwinding of the tape, said brake consisting of a friction-band pivoted at its upper end to the reel-frame, and loosely following 25 the circumference of the reel proper; a pair

of links whose lower ends are pivoted to the reel-frame and to whose upper ends said band is pivoted; a brake-lever fixed between the links midway of their length, and a trip-rope fastened to the free end of the brake-lever. 30

2. A fire-escape consisting of a reel, adapted to be swung to a window-frame or other support; a band pivoted at its upper end to the reel-frame above the reel, loosely following the circumference of the reel; a pair of links 35 whose lower ends are pivoted to the reel-frame below the reel and to whose upper ends said band is pivoted; a counterbalanced brake-lever fixed to the pair of links; a flexible tape wound on the reel; a receptacle for a person 40 or baggage, and a coiled spring located within the reel, adapted to wind up as the reel unwinds.

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

JOB B. WETMORE.

Witnesses:

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JEROME BOTTOM.