(No Model.)

2 Sheets—Sheet 1.

D. JENKINS.

FIRE ESCAPE.

No. 263,181. Patented Aug. 22, 1882.

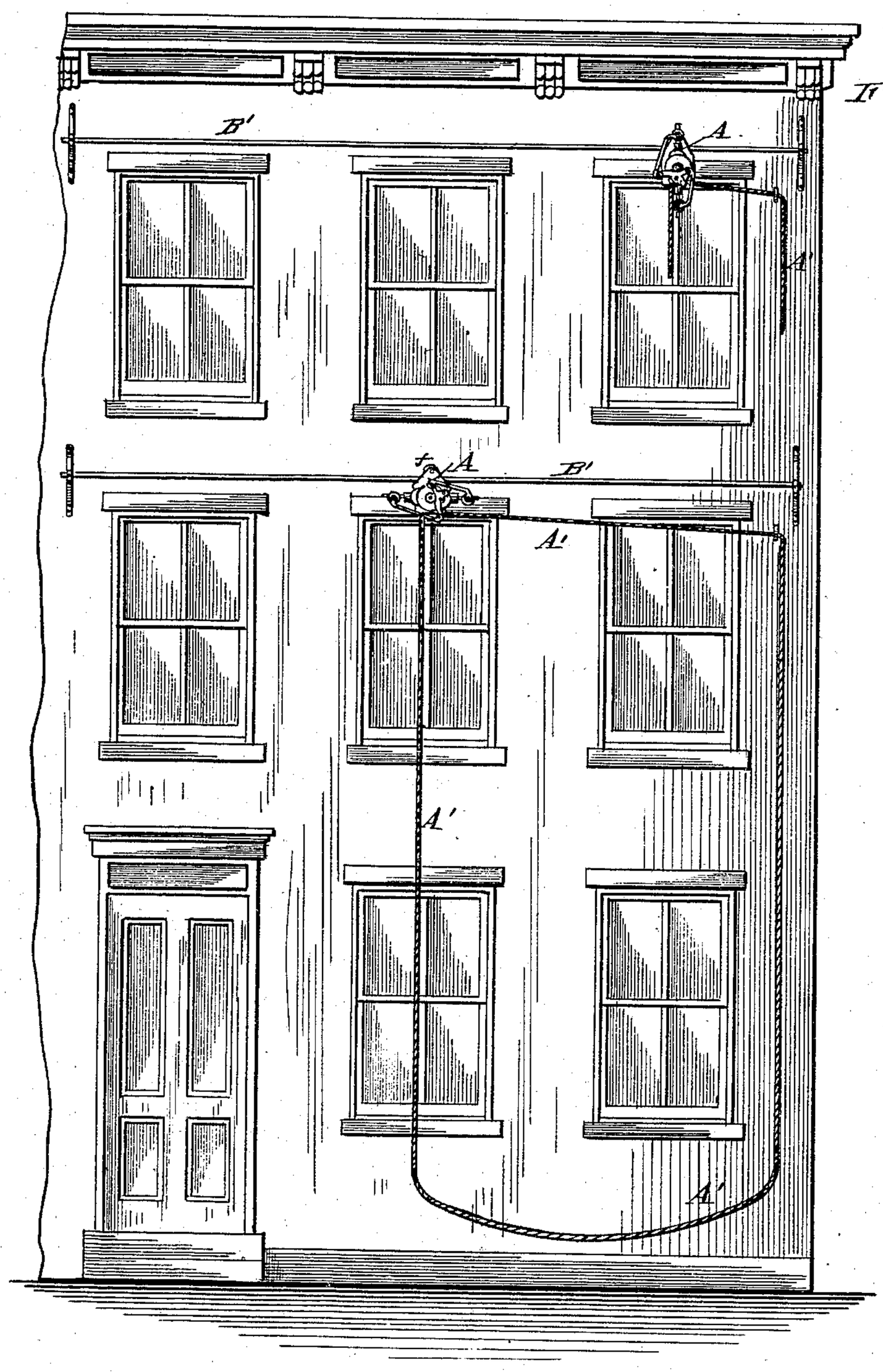

Fig. 1.

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(No Model.)

2 Sheets—Sheet 2.

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FIRE ESCAPE.

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Fig. 2.

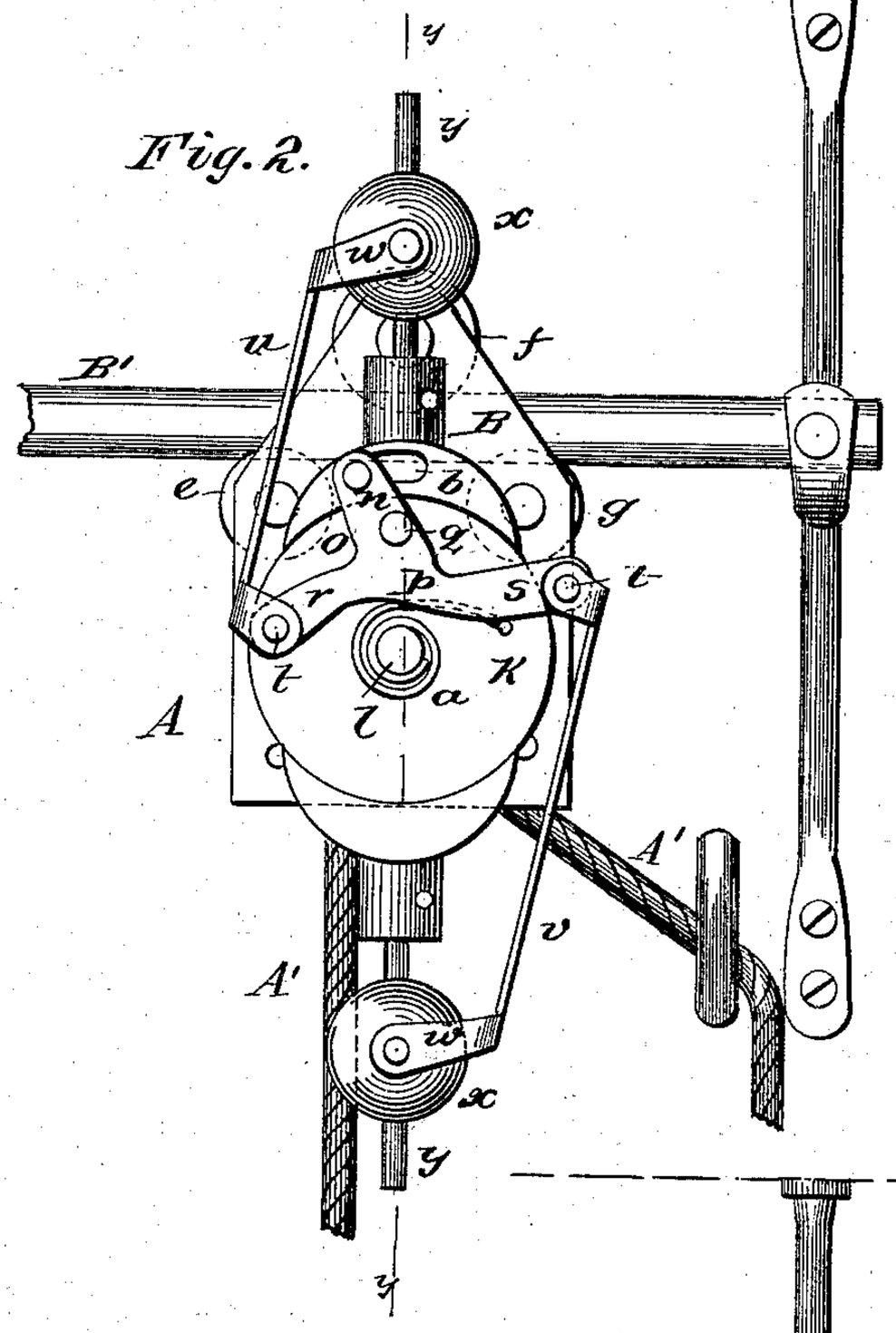


Fig. 3.

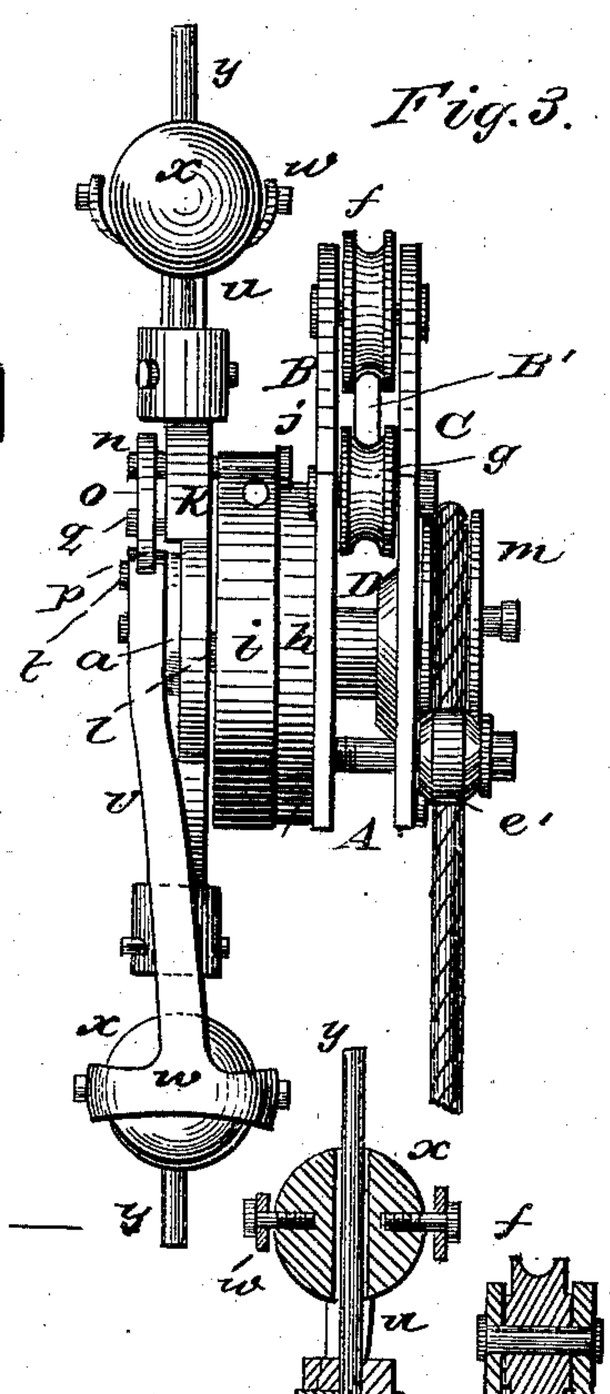


Fig. 4.

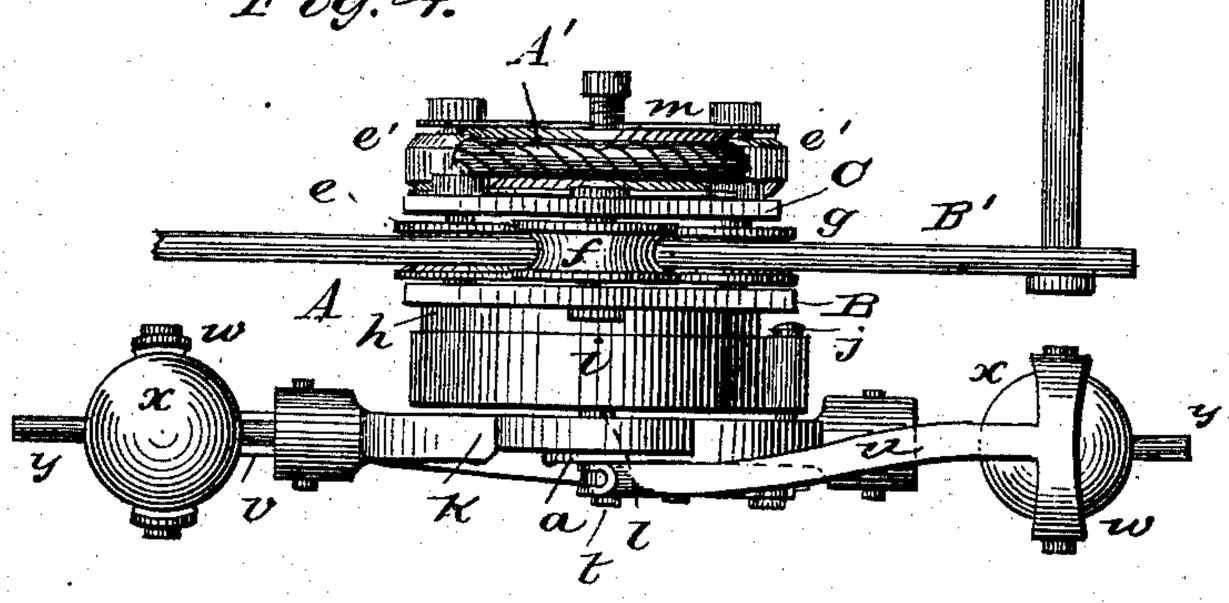
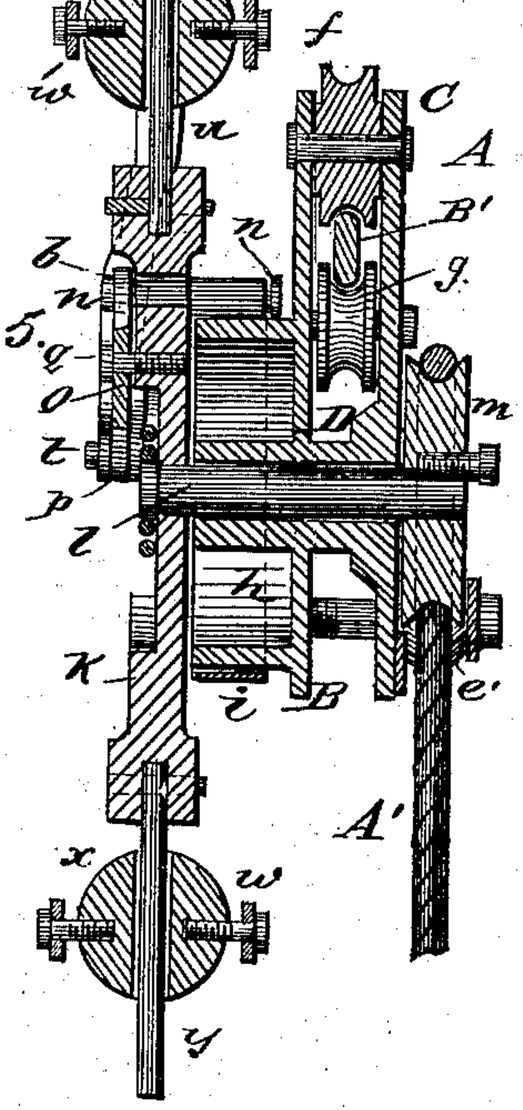


Fig. 5.



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UNITED STATES PATENT OFFICE.

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 263,181, dated August 22, 1882.

Application filed April 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, DAVID JENKINS, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Fire-Escapes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in fire-escapes; and it consists of a grooved drum or pulley, and an endless rope placed in a groove in said drum or pulley and held therein by friction-pulleys—the axis of said drum or pulley pivoted in a tubular bearing, and on the outer end of said axis a disk having two arms or rods projecting therefrom, upon which are movable balls, to which are pivoted arms connected to two limbs of a lever pivoted to the face of said disk, to which is attached on its rear side one end of a band, the other end of which band is attached to a projecting arm on one of the limbs of said lever, said band surrounding a circular flange projecting outward from the face of the frame of the fire-escape, which is suspended on pulleys pivoted in said frame upon a bar placed above the window of the building, all of which will hereinafter more fully and at large appear.

To enable others skilled in the art with which my invention is most nearly connected to make and use it, I will proceed to describe its construction and operation.

In the accompanying drawings, which form part of my specification, Figure 1 represents a front elevation of my improvement in fire-escapes as applied to a building. Fig. 2 is a front elevation of the fire-escape. Fig. 3 is a side elevation of the same. Fig. 4 is a top view representing the arms or rods upon which the balls move at right angle to a vertical plane. Fig. 5 is a vertical section at line *y y* of Fig. 2.

Reference being had to the accompanying drawings, A represents the frame of the fire-escape, consisting of plates B and C, held in juxtaposition with relation to each other by the tubular bearing D and axes of the pulleys *e f g*, the plate B having on its outer face a circular projecting flange, *h*, around which is placed a band, *i*, one end of which is attached to an arm, *j*, projecting from the disk *k*, secured on the outer end of the axis *l* of the grooved drum or pulley *m*, which axis *l* is pivoted in the tubular bearing D, and the other end of the band *i* attached to an arm, *n*, projecting through a slot, *b*, in disk *k*, and at right angle to the limb *o* of the lever *p*, pivoted at *q* to the outer face of the disk *k*.

To the limbs *r* and *s* of the lever *p* is pivoted, at *t*, arms *u v*, having forked ends *w*, which are pivoted to balls *x*, which move upon arm or rod *y*, projecting outward from the disk *k*.

To the axis *l* is attached a coiled spring, *a*, the outer end of which presses against the limb *s* of the lever *p* for drawing the balls toward the axis of the disk *k*. The endless rope A′ is placed in the groove of the drum or pulley *m*, and is held therein by means of the friction-pulleys *e′*.

The frame of the fire-escape is suspended upon the bar B′, which passes between pulleys *f* and *g*, as indicated in Fig. 3, whereby it can be easily moved along on said bar, the said pulley always holding the frame A in proper position on said bar. The bar B′ is suspended on hangers projecting from the building above the window, as shown in Fig. 1. One part of the endless rope is suspended upon a hook, as shown in Fig. 1, for the purpose of preventing the person or persons from taking hold of more than one part of the rope while attempting to escape from the burning building. The person escaping takes hold of the rope, as indicated in Fig. 1, and the weight of the person will cause the drum or pulley to revolve the axis *l*, which will revolve the disk *k*, and the revolving of the disk *k* will, by centrifugal action, throw the balls outward from the axis of said disk on the arms or rods *y*, and the outward movement of the balls will thereby cause the arms *u* and *v* to draw on the limbs *r s* of the lever *p*, thereby causing the band *i* to impinge upon the circular projecting flange *h* on the outer face of the plate B in proportion to the weight of the person hanging to the endless rope A′, it being evident that if the band *i* did not impinge upon the flange *h* the drum *m* would revolve with great rapidity, allowing

the endless rope A′ to travel with such rapid speed that the person escaping by it would be injured in descending.

Having thus described the nature, construction, and operation of my improvement, what I claim as of my invention, and desire to secure by Letters Patent of the United States, is—

1. In a fire-escape, the combination of the disk *k*, lever *p*, balls *x*, arms *u v j n*, band *i*, and circular flange *h* on the plate B, constructed, arranged, and operating, substantially as herein described, and for the purpose set forth.

2. In a fire-escape, the combination of the drum or pulley *m*, disk *k*, lever *p*, balls *x*, arms *u v j n*, band *i*, and circular flange *h* on the plate B, constructed, arranged, and operating substantially as herein described, and for the purpose set forth.

3. The endless rope A′, grooved drum or pulley *m*, friction-pulleys *e′*, disk *k*, lever *p*, balls *x*, arms *u v j n*, band *i*, and circular flange *h* on the plate B, constructed, arranged, and operating substantially as herein described, and for the purpose set forth.

4. The endless rope A′, grooved drum or pulley *m*, friction-pulleys *e′*, disk *k*, lever *p*, balls *x*, arms *u v j n*, band *i*, circular flange *h* on the plate B, and suspending-bar B′, constructed, arranged, and operating substantially as herein described, and for the purpose set forth.

DAVID JENKINS.

Witnesses:
A. C. JOHNSTON,
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