

(No Model.)

A. JOHNSON.

FIRE ESCAPE.

No. 287,940.

Patented Nov. 6, 1883.

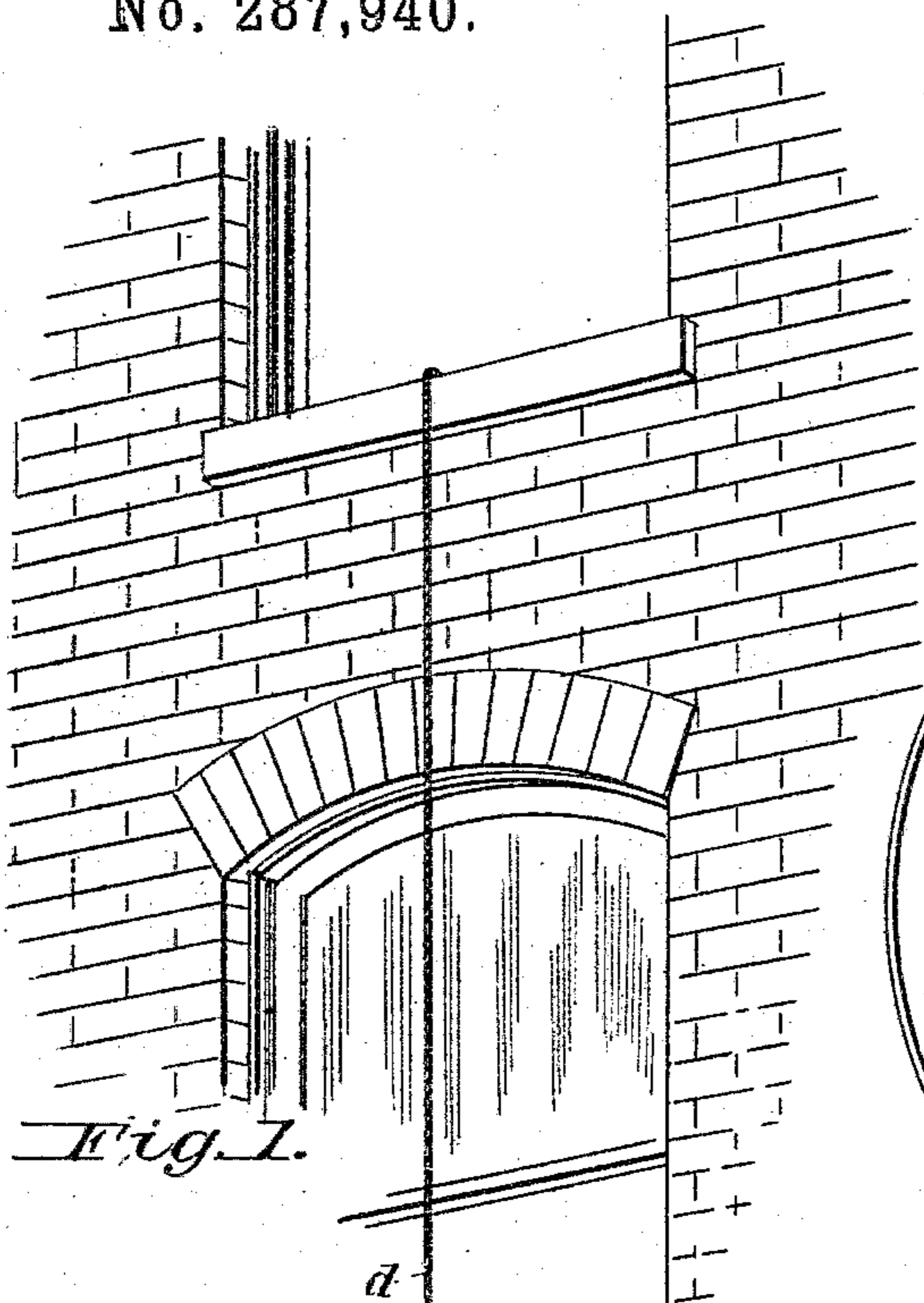


Fig. 1.

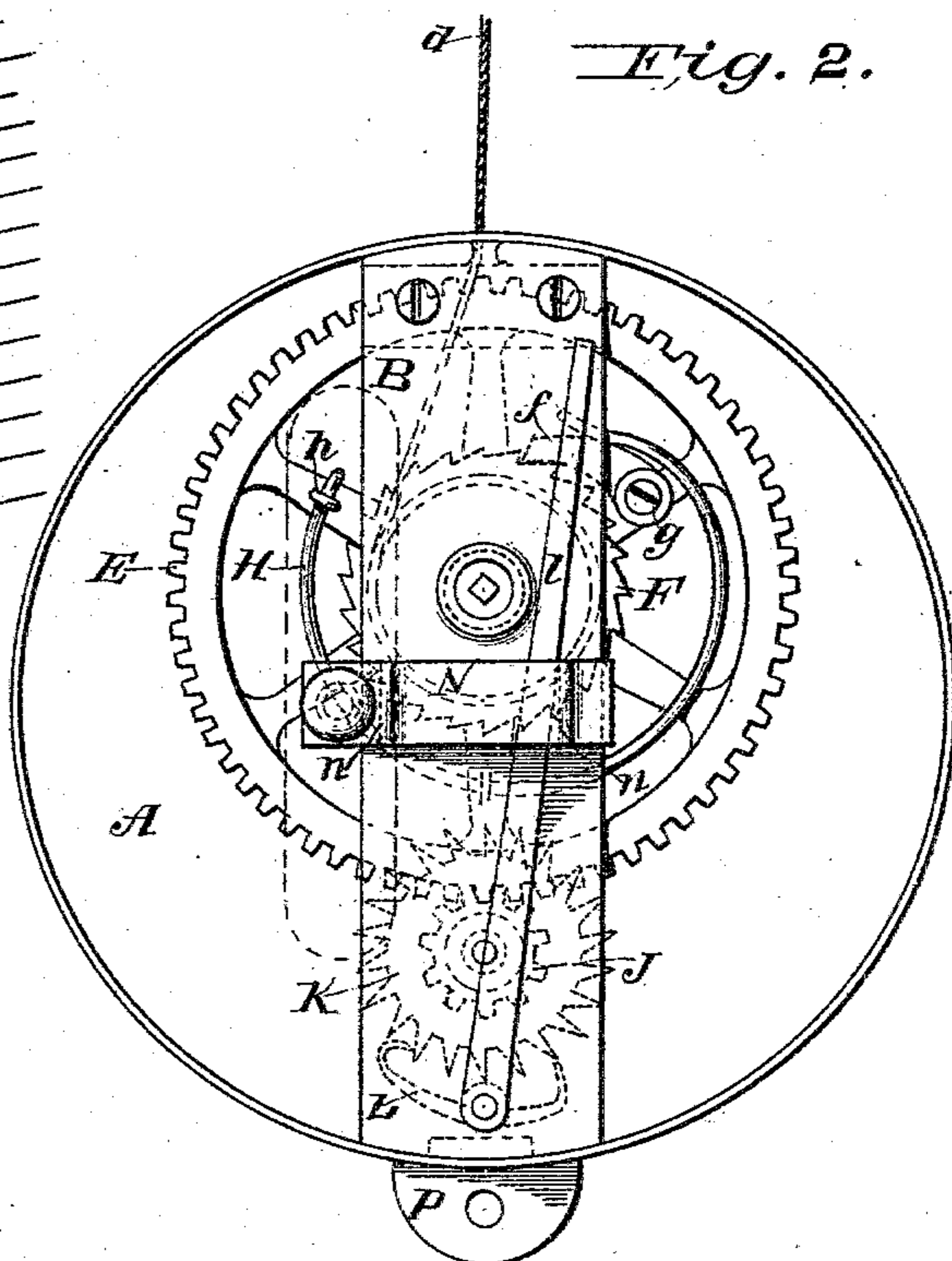


Fig. 2.

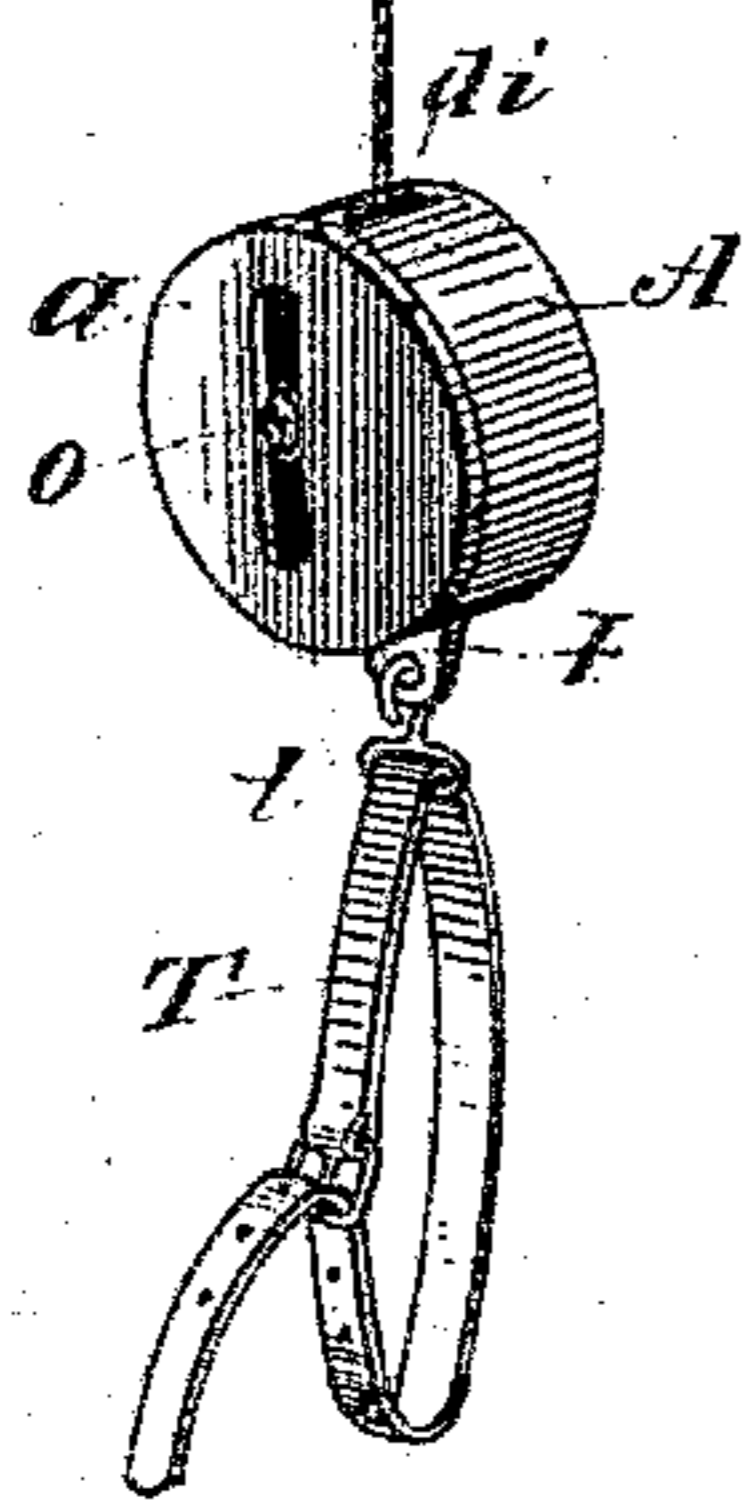


Fig. 3.

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 287,940, dated November 6, 1883.

Application filed February 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, ABIJAH JOHNSON, a citizen of the United States, residing at Denver city, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in fire-escapes, in which the velocity of descent is regulated by the use of an escapement-movement; and the objects of my invention are to enable persons to escape from windows or doors of high buildings in case of fire without injury and without personal assistance, which I attain by means of the device illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view. Fig. 2 is a front view with part of case removed. Fig. 3 is a part sectional side elevation, showing the spool upon which the cord is wound:

A is a case provided with an adjustable front, *a*. B is a cage in which is placed a shaft, C. Upon the shaft is fastened a spur-wheel, E, and also a spool, D, around which a cord, *d*, is wound, the end of which passes out of the case at *d i*. A ratchet-wheel, F, is then placed on the shaft C, in which a pawl, *f*, engages. The pawl *f* is attached loosely to an arm of the spur-wheel E, as shown at *g* in Fig. 2. A spring, H, is connected to an arm of the spur-wheel E, as shown at *h* in Fig. 2, which extends around and presses on the pawl *f* in such a manner as to keep the pawl *f* engaged with the ratchet-wheel F. A shaft, I, is arranged in the lower part of the cage, upon which is fastened a pinion, J, which meshes into the spur-wheel E. A scape-wheel, K, is also fastened on the shaft I, which engages with a pallet, L. To the pallet is fastened a pendulum, *l*, provided with a weight, *li*. The pendulum passes through an adjustable slide, N, which can be moved up and down on the face-plate of the cage B and retained in place by means of the set-screw *o*.

In the use of my invention the end of the cord *d* (which is made of hemp, or steel, or

iron wire) is attached to any stationary object in the apartment occupied by the person using the escape. A belt, T, is fastened around the body, under the arms. The hook *t* is attached to the lug P on the case A. The operators then place their weight on the escape, which allows of their descent, fast or slow, which is regulated by the escapement, pendulum, and the slide N. The slide, when placed near the pallet, permits the pendulum a long swing, and when moved further away from the pallet the swing of the pendulum is shortened. The opening in the slide N, through which the pendulum passes, extends from *n* to *n*. The slide N can be moved on the cage by use of the set-screw *o* without removing the front of the case, as the case is provided with a slot, through which the set-screw *o* can be operated by the fingers. When the cord *d* is paid out it is again wound on the spool by means of a key, which is fitted to the square end *c* of the shaft C.

My invention can also be used by attaching the belt T to any stationary object in the apartment or to a window, and fastening the object to be lowered to the end of the cord *d*.

Having thus fully described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fire-escape, the slide N, having a recess from *n* to *n*, inclosing the pendulum *l*, thereby regulating the swing of the pendulum, as set forth.

2. In a fire-escape, the combination of a spool having a cord secured thereto, the spur-wheel E, ratchet-wheel F, pawl *f*, the spring H, the pinion J, scape-wheel K, the pallet L, and pendulum *l*, the slide N, set-screw *o*, cage B, and case A, all substantially as set forth.

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

ABIJAH JOHNSON.

Witnesses:

S. R. TAYLOR,
FRANK F. DUMKE.