(No Model.)

H. GREENE.

FIRE ESCAPE.

No. 300,248. Patented June 10, 1884.

Fig. 1.

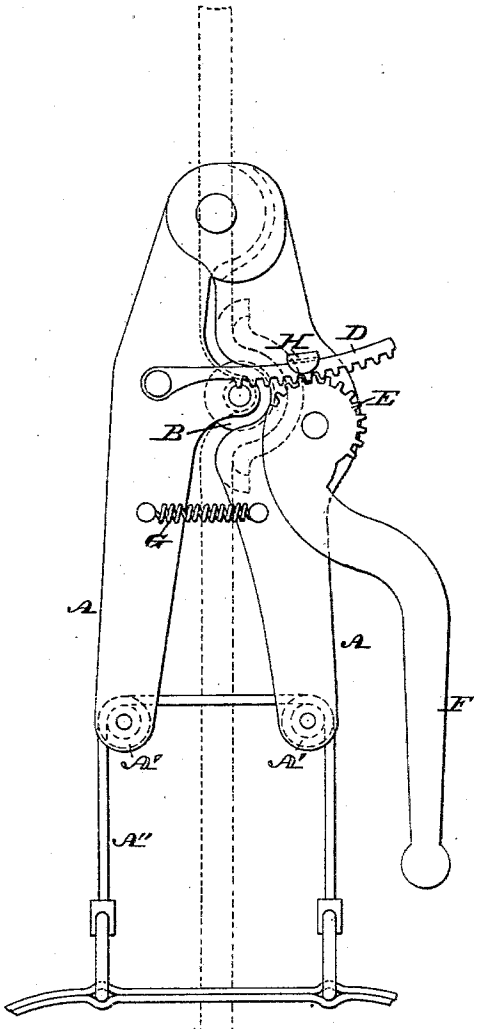


Fig. 2.

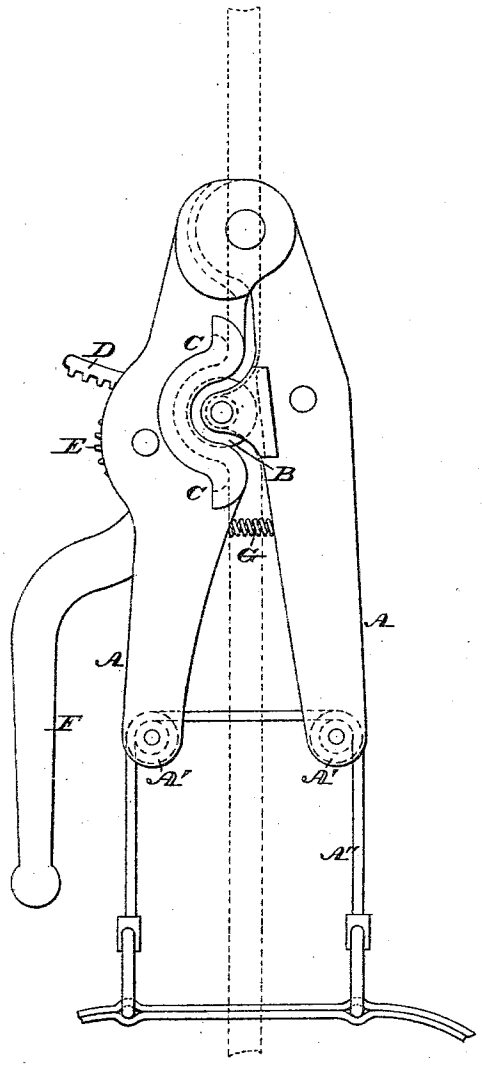


Fig. 3.

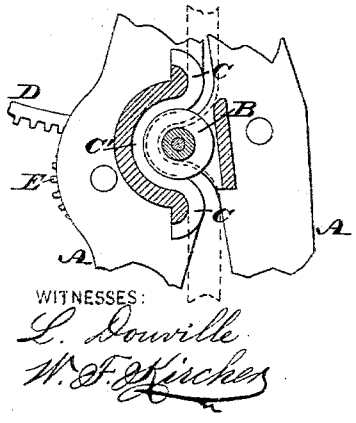
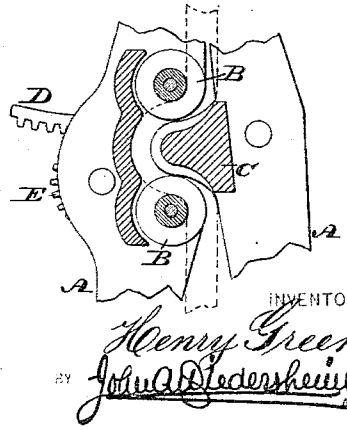


Fig. 4.



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UNITED STATES PATENT OFFICE.

HENRY GREENE, OF PHILADELPHIA, PENNSYLVANIA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 300,248, dated June 10, 1884.

Application filed April 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, HENRY GREENE, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Fire-Escapes, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figures 1 and 2 are views of opposite sides of a fire-escape embodying my invention. Fig. 3 is a view of a portion of Fig. 2 detached and in vertical section. Fig 4 is a view of a modification of the portion shown in Fig. 3.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of improvements in fire-escapes, as will be hereinafter fully set forth.

Referring to the drawings, A represents two jaws, which are pivoted together, and have at their lower ends rollers A′, around which passes a connection, A″, of the strap to be attached to the body or waist of the person using the escape. The connection or strap A″ is continuous from its place of attachment at one end with the waist strap or belt around the rollers A′ A′ to the place of attachment of the other end of said strap with the waist-belt.

B represents a roller which is pivoted to the inner face of one of the jaws, and C represents thimbles connected with the opposite jaw in such manner that the roller B projects into the curved bearing C′ between said thimble C, whereby the rope of the escape which is fitted between the roller and thimble may be clamped by the same when the jaws are closed. In Fig. 4 I show two rollers, B, on one jaw and a thimble, C, on the opposite jaw, without, however, producing different results from those above stated. Pivoted to one of the jaws on the side thereof is a rack-bar, D, with which engages a toothed segment, E, which is mounted on the other jaw, and provided with a lever or handle, F, whereby the segment may be rotated and the rack-bar consequently moved, the effect whereof is to open or close the jaws relatively to the direction of operation of the lever F.

G represents a spring, which is secured to the jaws in any suitable manner, and serves to close the same for preventing lateral displacement of the rope, so that the escape is always in condition for immediate use. Projecting from one of the jaws is a guard, H, which retains the rack-bar in position and causes its unfailing engagement with the toothed segment.

It will be seen that when the escape is in service the weight of the person causes the jaws to close, whereby sufficient friction is created on the rope to prevent too rapid descent. Should, however, there be too much friction, and thus the descent accordingly affected, the lever is operated so as to open the jaws sufficiently to relieve the rope. Again, if the descent is dangerously rapid, the lever is operated to close the jaws, and thus increase the clamping action of the roller and thimbles on the rope.

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

1. The pivoted jaws A, with a thimble and roller, between which the rope is passed, and rollers A′ at the lower ends, in combination with the strap A″, connected with the waist-belt, extending continuously from said belt around said rollers A′, substantially as and for the purpose set forth.

2. Jaws with a thimble and roller, in combination with a controlling device for the rope, consisting of a rack-bar and a toothed segment, the latter having an operating-lever, substantially as and for the purpose set forth.

3. In a fire-escape, clamping-jaws, in combination with a rack-bar, a toothed segment, and a guard for said bar, substantially as and for the purpose set forth.

4. Jaws with a thimble and the opposite roller, the end rollers, the connection with the waist-belt, the closing-spring, the rack-bar, the toothed segment, and the operating-lever, combined and operating substantially as and for the purpose set forth.

HENRY GREENE.

Witnesses:
JOHN A. WIEDERSHEIM,
A. P. GRANT.