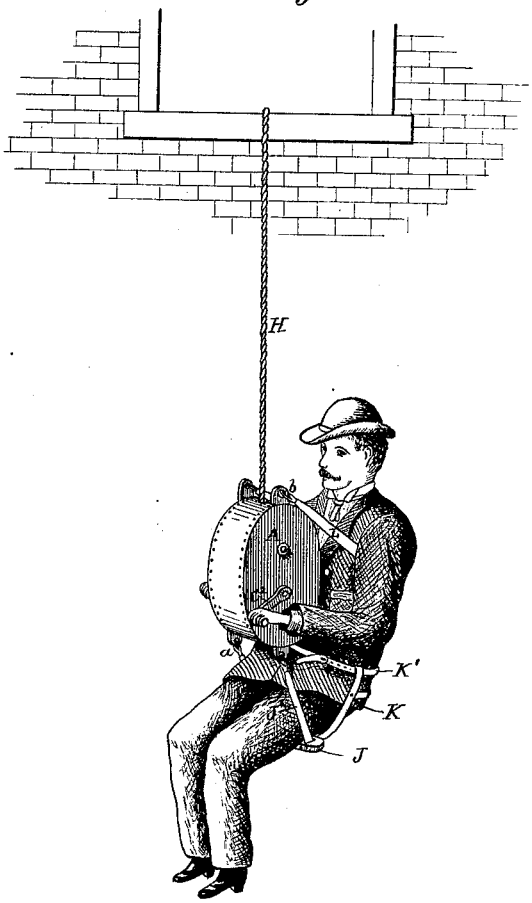
G. W. EYLER.
FIRE-ESCAPES.

2 Sheets—Sheet 1.

No. 195,354.

Patented Sept. 18, 1877.

Fig. 1.



WITNESSES

Henry N. Miller

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2 Sheets—Sheet 2.

G. W. EYLER.

FIRE-ESCAPES.

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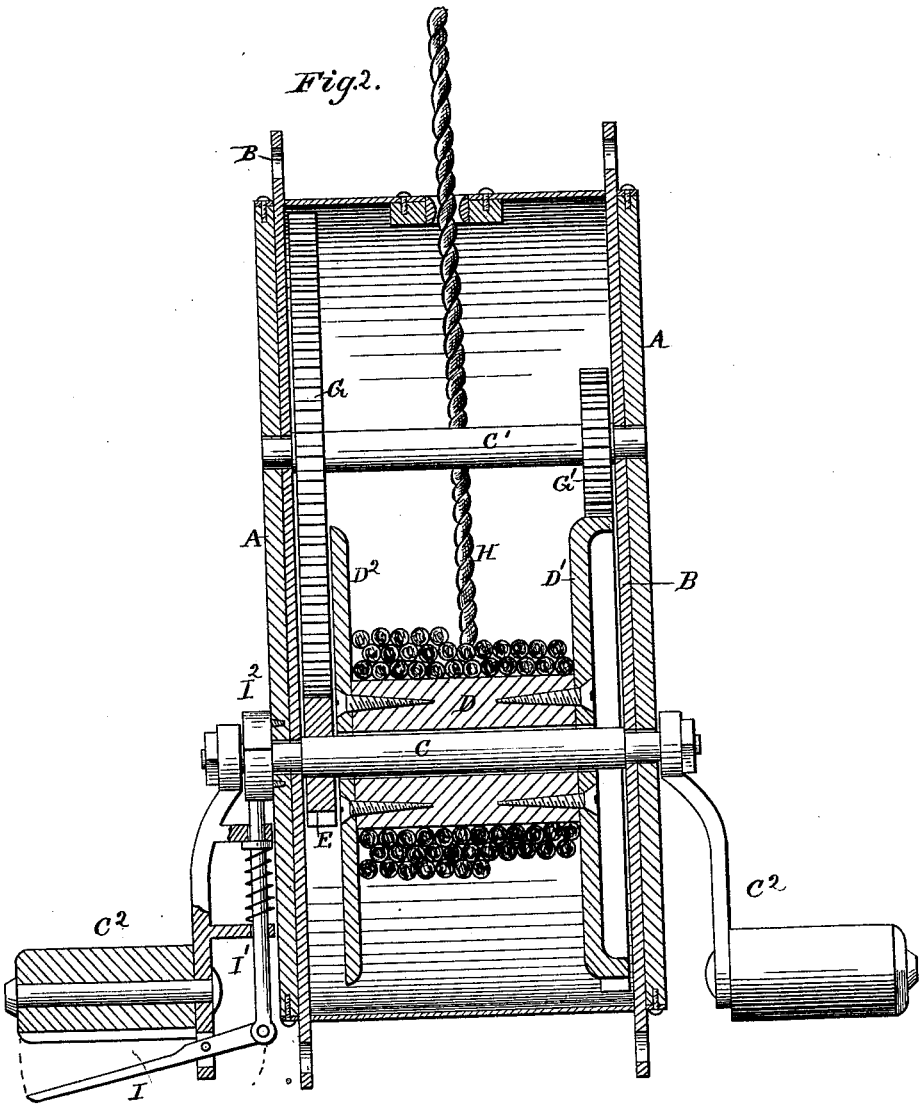
Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE W. EYLER, OF STAUNTON, VIRGINIA.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **195,354**, dated September 18, 1877; application filed June 1, 1877.

To all whom it may concern:

Be it known that I, GEORGE W. EYLER, of Staunton, in the county of Augusta, and in the State of Virginia, have invented certain new and useful Improvements in Fire-Escapes; and 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, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a fire-escape, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of my fire-escape, and Fig. 2 is an enlarged longitudinal section of the casing with interior mechanism.

A represents a case or box, made preferably of oval form and of any suitable dimensions. This box is, along the center of each end piece on the inside, provided with a metal strap or bar, B, which extends above and below the box, as shown, and the ends of these bars are perforated for the attachment of the harness.

These bars also form the journal-bearings for two shafts, C and C^1. The lower shaft C projects through the ends of the box sufficiently far to receive a crank, C^2, on each end.

On the shaft C, within the box A, is loosely placed a spool or drum, D, provided at one end with a cog-wheel, D^1, and at the other end with a flange, D^2.

E is a pinion, secured firmly on the shaft C, and meshes with a cog-wheel, G, secured on the shaft C^1, and on this shaft is further secured a pinion, G′, which meshes with the cog-wheel D^1 on the spool D.

H is a rope or cable, of wire or any other suitable material, secured to and wound around the spool D, the end of the rope passing out through the top of the case, and having a suitable hook fastened to its end.

To one of the cranks C^2 is pivoted a lever, I, which is connected with a spring dog or pawl, I^1, to take into a ratchet-wheel, I^2, secured permanently to the side of the box.

The harness of the fire-escape consists of a board, J, forming the seat, with a strap, J′, passing under the same, and the ends upward through slots in the board, and connected by snap-hooks *a* with the lower ends of the bars B. To the board J are fastened straps K, passing up the back of the person using the fire-escape, and secured by a belt, K′, around the waist. Another belt, L, is passed under the arms of the person, and the ends connected by snap-hooks *b b* with the upper ends of the bars B, the box A being thus in front of the person, so that he can easily work both cranks C^2.

When the fire-escape box has thus been strapped in place on the person, the end of the rope H is, by means of the hook, fastened in any suitable place within the room, and the person can then get out of the window and gently and easily let himself down by turning the cranks C^2. If at any time he should let go of the cranks the descent is instantly stopped by the spring-pawl I^1 taking into the ratchet I^2.

By the arrangement of the gearing within the box great power is obtained, so that a person can just as easily raise himself up as to let himself down.

Instead of the pawl and ratchet described for stopping the descent, a friction device of any suitable form may be employed.

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

The combination, with the case A, of the shafts C C^1, spool D, gearing E G G′ D^1, and cranks C^2 C^2, with a ratchet or friction device connected to one or both of said cranks, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of May, 1877.

GEO. W. EYLER.

Witnesses:

FRANCK L. OURAND,

FRANK GALT.