

W. H. KNOWLTON.
FIRE-ESCAPES.

No. 194,443.

Patented Aug. 21, 1877.

FIG. 1.

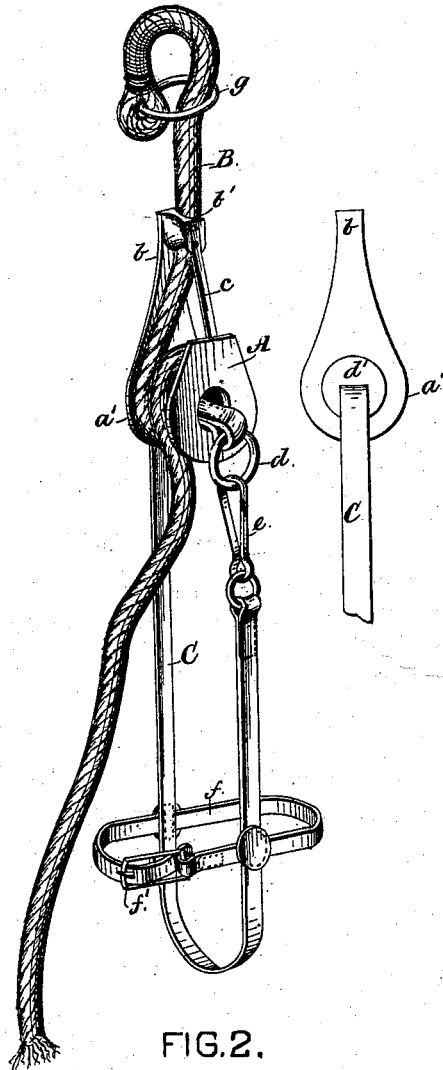
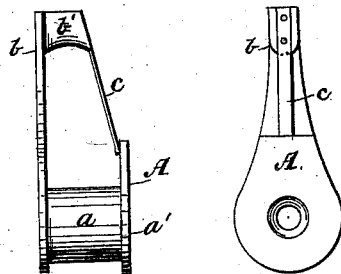


FIG. 2.



WITNESSES
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IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **194,443**, dated August 21, 1877; application filed July 16, 1877.

To all whom it may concern:

Be it known that I, WARREN HAMILTON KNOWLTON, of Dubuque, in the county of Dubuque and State of Iowa, have invented a new and useful Improvement in Fire-Escapes; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The object of my invention is the production of a fire-escape which will be light and portable, and can be cheaply manufactured, and by which a person can lower himself from the window or other portion of a building with comparative ease and safety; and it consists, mainly, in the peculiar construction of the block which slides upon a rope, and to which is attached the device for holding the person; and, further, in the combination, construction, and arrangement of the several parts composing my fire-escape, as fully hereinafter explained.

In the drawings, Figure 1 is a perspective view with the parts in position for use, and Fig. 2 a separate view of the block.

Like letters denote corresponding parts in each figure.

A is a metal block, around the drum *a* of which the supporting-rope B is wound. This drum has a flange, *a'*, at each end to prevent the rope from running off. One of these flanges is extended upwardly to form an arm, *b*, which has a double concave head, *b'*, against one side of which the rope rubs when the device is in operation. A leaf-spring, *c*, extends to the head *b'* and strikes against the inside of the opposite flange *a'*. This leaf-spring opens inwardly, allowing the rope to be easily placed upon the drum, but preventing it from slipping off of such drum. Through the center of the drum *a* is formed a hole, through which is passed the strap or rope C. One end of the strap C projects from this hole, and has a ring, *d*, attached to it, and at the opposite end of

the drum a washer or other suitable stop, *d'*, is secured to this strap to prevent the strap from moving through the drum and to hold it securely in position. The strap C hangs down in a loop from the drum *a*, and one end of such strap has secured to it a snap-hook, *e*, which hooks into the ring *d*. A short horizontal strap, *f*, is secured to the strap C near its bottom, forming a loop on one side of such strap, and having its ends connected by a buckle, *f'*, on the other side. The rope B may be provided with a ring, *g*, in one end.

In use, supposing the person to be in one of the upper stories of a building, one end of the rope is secured fast to some convenient article, and is then wound once or twice around the drum of the block, or it may first be placed upon the block and afterward secured. The person then seats himself astride or upon the looped strap C and buckles the strap *f* closely around his waist. He then grasps the rope B and lowers himself from the window, (the device taking the position shown in Fig. 1,) the folds of the rope binding upon the drum *a* and upon each other, and thus the speed of the descent can be easily regulated by the operator.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a fire-escape, the block A, consisting of the drum *a* having flanges *a'*, the arm *b*, and spring *c*, constructed and arranged substantially as described and shown.

2. The portable fire-escape described, consisting of the block A, having drum *a*, flanges *a'*, arm *b*, and spring *c*, the straps C *f* and buckle *f'*, in combination with the rope B, all constructed and arranged substantially as described and shown.

This specification signed and witnessed this 9th day of June, 1877.

WARREN HAMILTON KNOWLTON.

Witnesses:

WILLIAM GRAHAM,
MONROE W. CADY.