(No Model.)

W. H. SOUTHER.

FIRE ESCAPE.

No. 262,627. Patented Aug. 15, 1882.

Fig. 1.

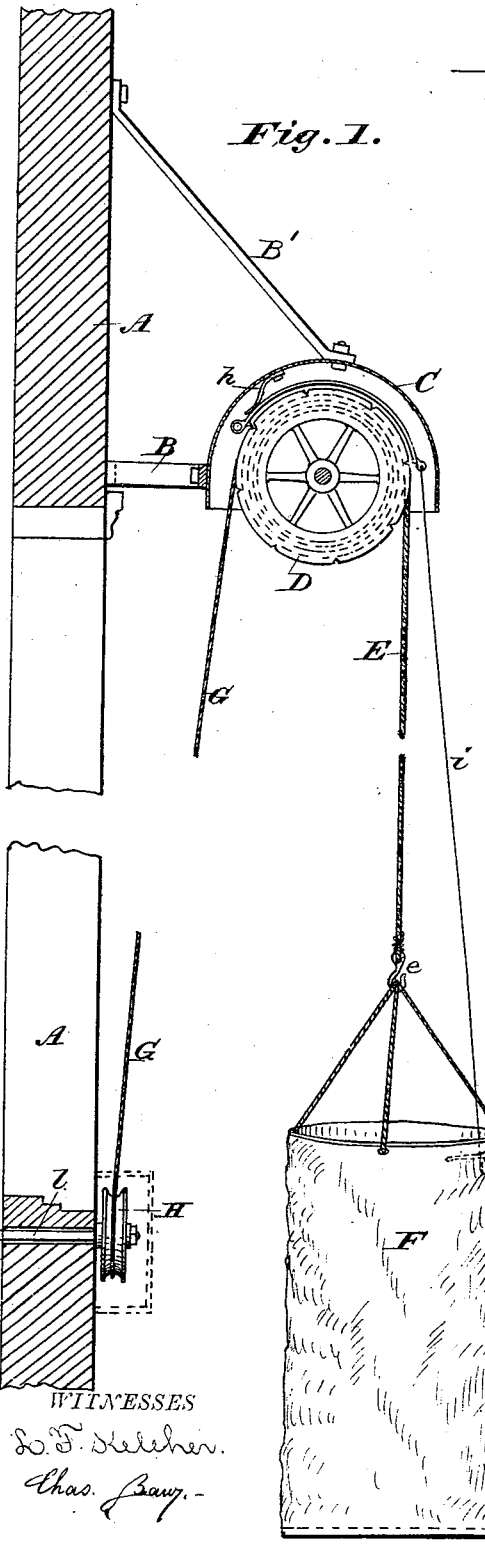


Fig. 2.

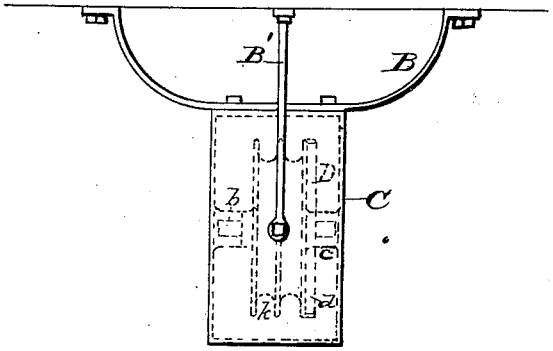
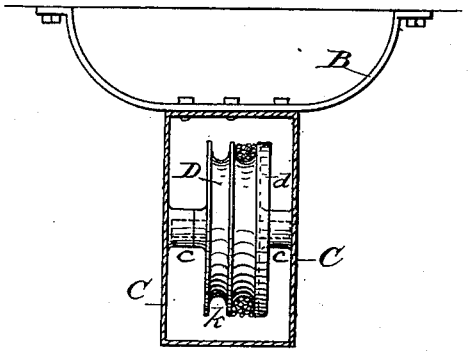


Fig. 3.



WITNESSES

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 262,627, dated August 15, 1882.

Application filed July 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. SOUTHER, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, 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 improvement in fire-escapes; and the object is to construct a fire-escape that is reliable in its operation at all times, simple in its construction, not liable to get out of order, and that can be produced at a very small cost, so as to be within the reach of all persons.

The invention consists in the construction and arrangement of certain parts of a fire-escape, as will be more fully described hereinafter, and more specifically pointed out in the claim, reference being had to the accompanying drawings and the letters of reference marked thereon.

Like letters refer to like parts in the different figures of the drawings, in which Figure 1 is a side elevation of my improved fire-escape attached to its place on a building, and is partly in section. Fig. 2 is a plan view of the upper part thereof. Fig. 3 is a horizontal section of Fig. 2.

In the drawings, A represents the side of a building, to the upper part of which is attached the bracket B, made sufficiently strong, and to it the housing or hood C is secured. A brace, B′, is attached to the back of the hood C, and extends upward, and is secured to the top of the house to add greater strength and rigidity to the apparatus. This hood may be made of cast or sheet metal, and has on each side a hub, *c*, which forms a bearing for the spindle *b*, to which a double drum, D, is secured and freely revolves with it. The drum is made with one groove wider and deeper than the other, and to the wide groove is firmly secured a wire rope, E, having at its lower end a hook or eye, *e*, to which a flexible bag, F, is attached. This bag is provided at its bottom with a board, upon which the person can stand in descending, while at the same time it serves to keep the bag open when containing the persons. The drum D has a flange, *d*, which is provided with a suitable number of notches, with which a pivoted brake bar or lever, *a*, having a hook or projection, *g*, at one end, engages, and it is held in contact with the notches by a spring, *h*, bearing on the back of the brake-lever. The other end of the lever is pivoted to the side of the hood, and a small cord, *i*, serves to operate the lever, and causes it to bear against the flange *d* of the drum. A smaller wire rope, G, is secured to the small groove *k* in the drum, and extends to a smaller drum, H, journaled near the bottom of the building. The shaft *l* of this sheave extends through the building to the inside, and is there provided with a suitable crank-handle, *m*, with which to operate the rope G. As the rope E is unwound in descending, so the rope G is wound upon the groove *k*, and serves to rewind the rope E on the wide groove in case it is desired to lower more persons contained in the burning building.

If desired, the lower drum, H, may be inclosed in a suitable casing on the outside of the building and may be locked. In this case the wire rope can be operated from the outside of the building. The parts can be ornamented, if desired, and of course the sizes can be varied to suit different kinds of buildings and purposes. A spool, *s*, to carry the rope *i* may be arranged in the bag with a suitable brake-lever, *t*.

The operation is as follows: The bag, which is ordinarily folded up and kept in a suitable receptacle in the room, in case of fire is placed through the window, and the persons desiring to descend get into the bag. One person then manipulates the brake-lever and disengages it from the notches, when the bag, with its load, will descend, and its rapidity can be regulated. It will be understood that the main rope is of course wound upon the drum D in the large groove until the descent commences. The lower drum is then operated by any person below by the crank-handle, when the main wire rope, with the bag, will be again elevated to receive another load. It will be thus seen that a great number of persons can be taken from a burning building in a very short space of time.

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

The fire-escape herein described, consisting

of the bracket B and brace B′, supporting a hood, C, containing a double drum, D, having a large and small groove, the rope E, provided with bag F, the rope G, and drum H, arranged near the ground, the brake-lever *a*, having a hook, *g*, to engage with notches in the flange of the drum D, and the rope G, all constructed and arranged as shown, and for the purpose specified.

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

WM. H. SOUTHER.

Witnesses:
L. F. KELEHER,
CHARLES HEMJE.