(No Model.)

# J. R. FELL.

## FIRE ESCAPE.

No. 285,603. Patented Sept. 25, 1883.

FIG. 1.

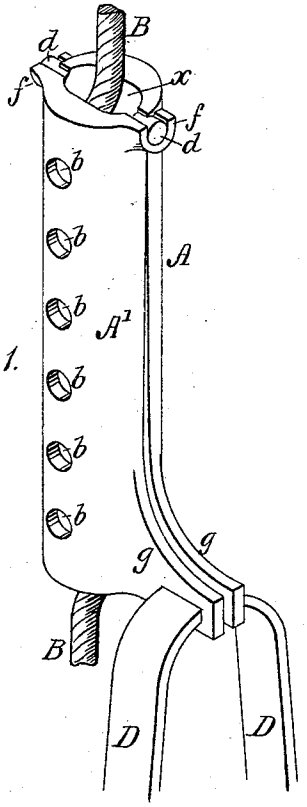



FIG. 2.

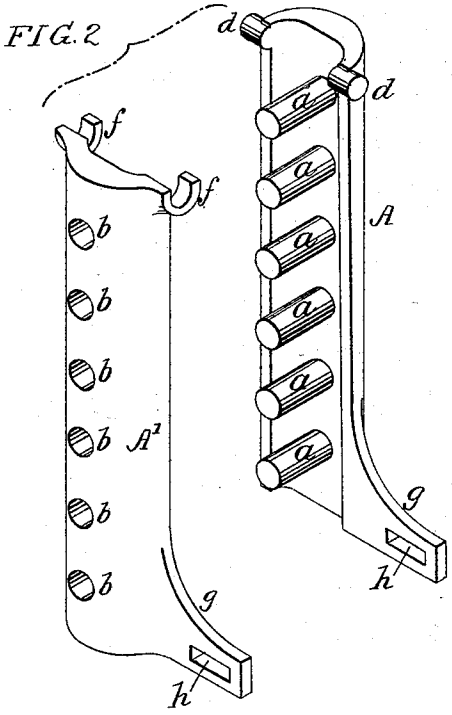



FIG. 3.

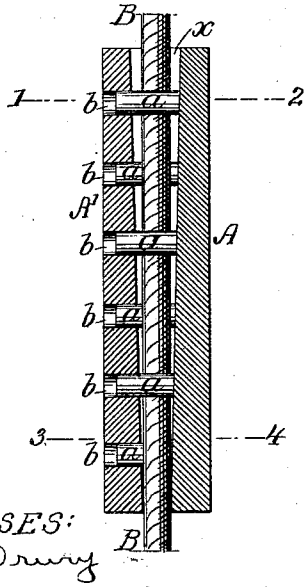



FIG. 4.

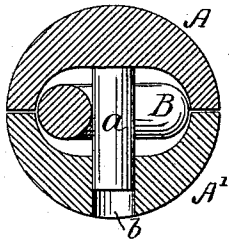
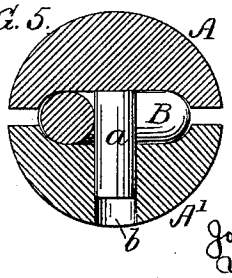



FIG. 5.




WITNESSES:
Harry Drury
Hamilton D Turner

INVENTOR:
John R. Fell
by his attorneys
Howson & Sons

# UNITED STATES PATENT OFFICE.

JOHN R. FELL, OF PHILADELPHIA, PENNSYLVANIA.

## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 285,603, dated September 25, 1883.

Application filed May 7, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN R. FELL, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Portable Fire-Escapes, of which the following is a specification.

My invention relates to an improvement in that class of portable fire-escapes in which descent is retarded by friction upon a rope, the object of my invention being to construct a simple, compact, and effective device of this class.

In the accompanying drawings, Figure 1 is a perspective view of my improved fire-escape adjusted for use; Fig. 2, a perspective of the same, showing the two shells detached from each other; Fig. 3, a vertical section of Fig. 1; and Figs. 4 and 5, enlarged sectional plans on the lines 1 2 and 3 4, respectively.

A A′ represent two shells, the inner side of each of which is recessed or hollowed out, so that when the two shells are adjusted face to face they will form a passage, *x*, adapted for the reception of a rope, B. From the inner side of the shell A project pins *a*, which, when the two shells are fitted together, extend across the passage *x* and enter openings *b*, formed in the shell A′, as shown in Fig. 3, the rope passing around these pins in a zigzag course, so as to insure the proper friction on said rope. On the shell A, at the upper end of the same, are lugs *d*, and on the shell A′ are hooks *f*, which, when adapted to the lugs, as shown in Fig. 1, form an open hinge-joint, and serve to pivot the two shells together. The recess in the inner face of each shell is such that the passage *x*, formed by said recesses, is gradually contracted from top to bottom, as shown in Fig. 3, so that when the rope B is introduced and the shells are drawn or forced together at their lower ends there will be frictional contact between the shells and the sides of the rope, as shown in Fig. 5, as well as between the rope and the pins. In order to insure the forcible drawing together of the shells at the lower ends, I provide each shell with a projecting ear, *g*, and in these ears form openings *h* for the reception of the strap D, which supports the person descending the rope, the weight tending to draw the ears together. In addition to this the shells may be grasped by the hands and pressed together. These plans of increasing the friction on the rope, however, need not be resorted to in all cases. For instance, the two shells may be so connected together that no lateral friction on the rope is possible, the degree of friction being regulated by imparting more or less tension to the pendent portion of the rope below the shells, in a manner common in other fire-escapes.

The exact construction of the shells shown is not essential to my invention. For instance, the groove for the rope may be formed wholly in one of the shells, instead of partly in both; and each of the shells may, if desired, be furnished with both pins *a* and openings *b*, the pins of one shell alternating with those of the other; or the pins may simply bear against the inner face of the opposite shell, instead of entering openings therein. The construction shown is, however, preferred.

The device can be readily cast without cores, and is consequently cheap, and being made in halves it can be readily applied to a rope at any point in the length of the latter and as readily removed from the rope when desired.

I claim as my invention—

1. A portable fire-escape, consisting of the two shells A A′, grooved, as described, for the reception of a rope, and having pins *a*, as set forth.

2. A portable fire-escape, consisting of the two shells A A′, grooved for the reception of a rope, and having pins *a* and openings *b*, as set forth.

3. A portable fire-escape, consisting of two shells, A A′, pivoted together, having a tapering groove for the passage of a rope, and provided with pins *a* and openings *b*, as specified.

4. A portable fire-escape, comprising shells A A′, grooved for the passage of a rope, and having openings and pins, as described, and provided with lugs *d* and hooks *f*, forming an open hinge-joint between the shells, as set forth.

5. A portable fire-escape, consisting of grooved shells A A′, pivoted together, having openings and pins, as described, and furnished with ears *g*, adapted for the reception of a strap, D, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN R. FELL.

Witnesses:
HARRY L. ASHENFELTER,
HARRY SMITH.