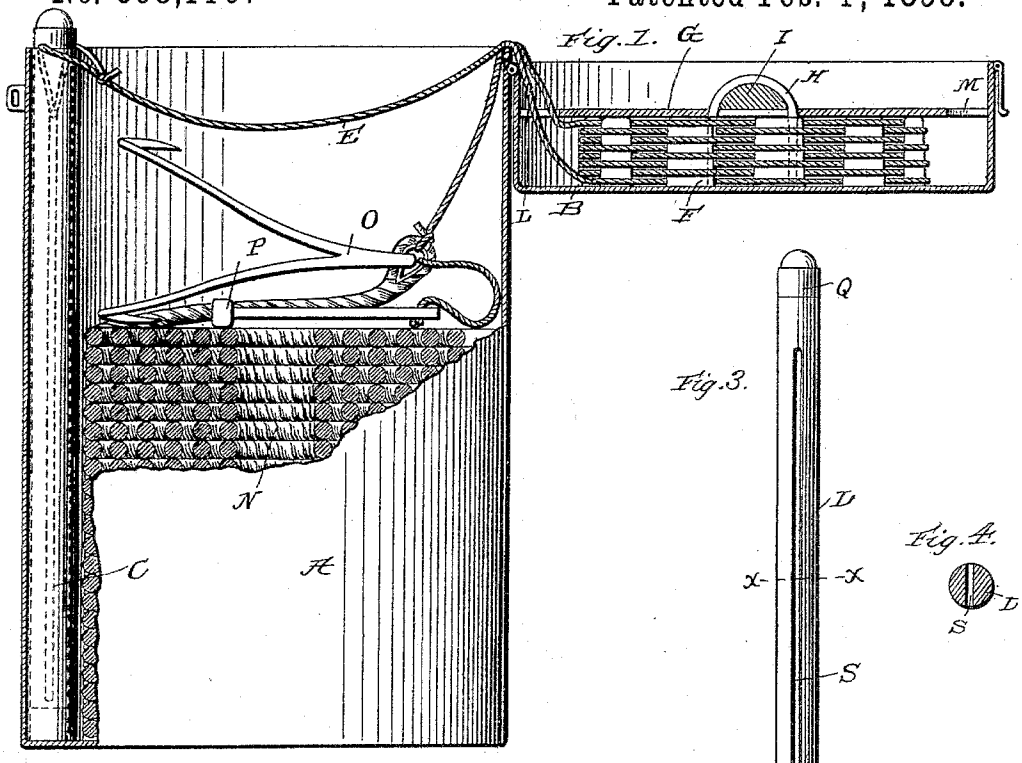
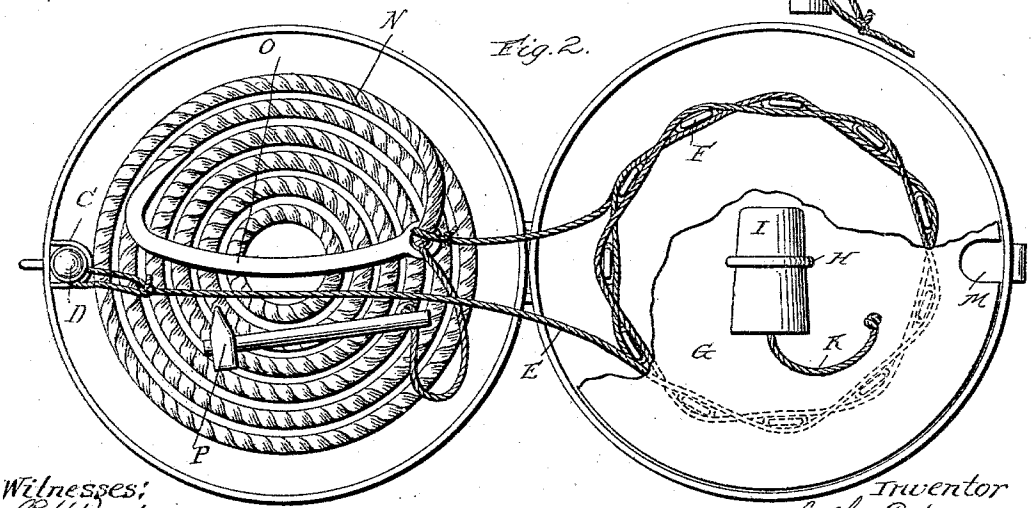
(No Model.)

G. H. PETERSEN.

FIRE ESCAPE.

No. 598,110. Patented Feb. 1, 1898.





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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 598,110, dated February 1, 1898.

Application filed July 8, 1897. Serial No. 643,882. (No model.)

To all whom it may concern:

Be it known that I, GERT HERMAN PETERSEN, a subject of the King of Sweden and Norway, residing at Christiania, Norway, have invented new and useful Improvements in Fire-Escaping Apparatus; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to fire-escape apparatus; and it contemplates the provision of a simple, inexpensive, and practical apparatus for throwing a rope to persons in high buildings, so as to enable them to escape when cut off from the stairs by fire.

The invention will be fully understood from the following description and claims when taken in conjunction with the annexed drawings, in which—

Figure 1 is a side view, partly in section, of the apparatus with the lid of the receptacle opened. Fig. 2 is a plan view of the same. Fig. 3 is a side view of the projectile used, with a piece of the line. Fig. 4 is a section on the line *x y* of Fig. 3.

In the said drawings similar letters designate corresponding parts in all of the several views.

In a receptacle or box A, with a lid B, preferably hinged, is fastened a semicircular vertical tube C, wherein is placed the projectile D. To this projectile is fastened a shot-line E, which is coiled up in the box-lid B in zigzags about the conically-formed projections F, which are fastened to the inner side of the top wall of the cover in a circle. The line thus coiled up will not come in disorder at the discharge, but will run out smoothly. The said projections F may be employed in any number; but it is to be preferred to use an uneven number, as eleven, thirteen, fifteen, &c., for when the number of projections is even every bight of the line will be parallel with the bight above as well as with the bight below, which might occasion the line being entangled. This, however, is not the case when an uneven number of projections is employed, as will be understood by reference to Fig. 2.

To keep the line in its place when the lid is shut down, upon the receptacle A there is placed a disk G, resting on the top of the projections F and provided with a loop H, fastened to the inner side of the top wall of the box-lid and protruding so much from the disk G as to enable it to receive a wooden wedge I, which serves to fasten the disk G. In this way the line always will be held in its proper position. The wedge I, through the medium of a short rope, is fastened to the disk G in order to prevent its being lost. The disk G is provided with two notches L and M, diametrically opposite to each other, of which the notch L provides a passage for the two line ends E, and the notch M is adapted to provide sufficient room for the point of the projectile D when the lid is closed. If required, there may be placed more lines than one in the lid. The lines may then be coiled up concentrically or be placed in layers, each layer being separate from the others by aid of removable disks. In such a case the lid must be made deeper than shown in the drawings. The box may of course also be of any other suitable form, as quadratic or longitudinal, but the line must be coiled up in the lid and the row of conical projections fastened to the lid in a circle, as above described.

One end of the line E is fastened to the rope N, which is coiled up in the box A. To the end of this rope is fastened a hooked fork O, the two hooks of which are adapted to be easily hooked to the inner side of a window-post or to any other suitable object where the hook may be safely fastened. For fastening this hooked fork there is also tied to the rope a small hammer P, by aid of which the hooks may be fastened to any wooden plank, window-post, &c.

The projectile D, Fig. 3, is suitably made of a material not too heavy—such, for instance, as tough wood or a comparatively light metal. In case it is made of wood it is provided with two metal casings Q and R, one at each end of the projectile, and with a longitudinal slot S, in which the end of the line E, which is formed in a loop, may move freely. (See Figs. 3 and 4.)

When the apparatus is to be used, the lid of the box is first opened, whereupon the wedge I is drawn out and the disk G lifted off. The projectile is then placed in the gun belonging to the apparatus (not shown in the

drawings) and the gun is discharged, so as to carry the line E to the persons in danger and enable them to haul up the rope N by aid of the line, to affix the hooked fork to the window-post, and to save themselves by the rope.

Having thus described my invention, what I claim is—

1. In a fire-escape apparatus, the combination with a box containing a rope, of a cover on the said box, said cover containing on its inside a rope of less diameter and of means for holding said rope coiled up on the inside of the cover, substantially as specified.

2. In a fire-escape apparatus, the combination of a box, a rope arranged in said box, a lid for the box having a circular series of projections connected to the inner side of its top wall, a projectile, and a line coiled about the projections on the lid and having one end connected with the rope and its opposite end connected with the projectile, substantially as specified.

3. In a fire-escape apparatus, the combination of a box, a rope arranged in said box, a lid for the box having a circular series of projections connected to the inner side of its top wall and also having a central staple connected to the inner side of said wall, a projectile, a line coiled about the projections on the lid and having one end connected with the rope and its opposite end connected with the projectile, the disk placed over the projections and the line coiled thereon and having an aperture receiving the staple, and a fastening-piece extending through the staple above the disk, substantially as specified.

4. In a fire-escape apparatus, the combination of a box having the wall C, forming a pocket, a rope arranged in said box, a lid for the box having a circular series of projections connected to the inner side of its top wall and also having a central staple connected to the inner side of said wall, a projectile removably placed in the pocket formed by wall C, of the box, a line coiled about the projections on the line and having one end connected with the rope and its opposite end connected with the projectile, the disk placed over the projections and the line coiled thereon and having an aperture receiving the staple and also having a notch for the passage of the ends of the line and another notch to receive the end of the projectile when the lid is closed, and a fastening-piece extending through the staple above the disk, substantially as specified.

In witness whereof I have hereunto set my hand in presence of two witnesses.

GERT HERMAN PETERSEN.

Witnesses:

ALFRED J. BRYN,

L. DARE.