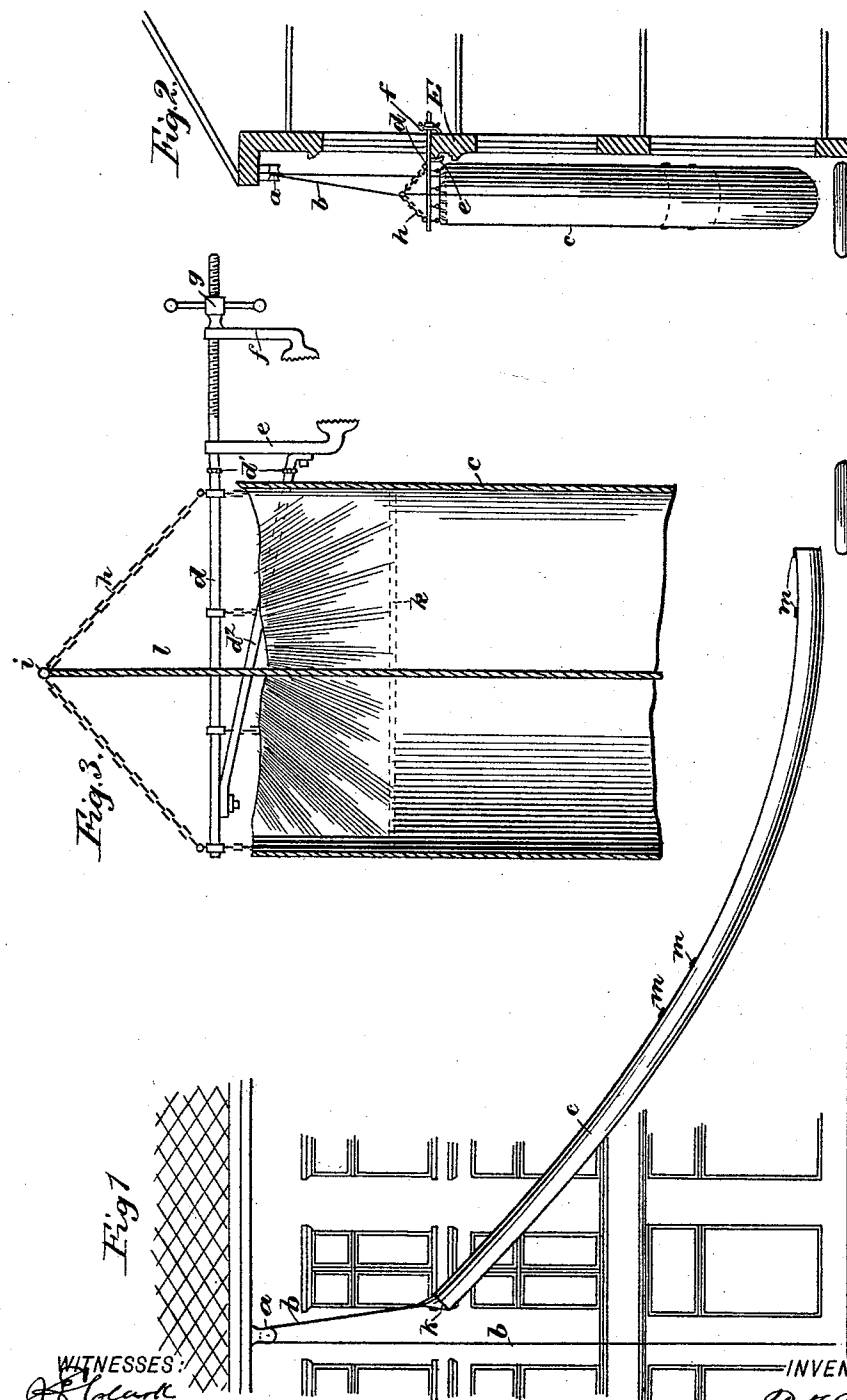


(No Model.)

P. THORESEN.
FIRE ESCAPE.

No. 459,319.

Patented Sept. 8, 1891.



WITNESSES:
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UNITED STATES PATENT OFFICE.

PEDER THORESEN, OF SVELVIG, NORWAY.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 459,319, dated September 8, 1891.

Application filed April 3, 1891. Serial No. 387,525. (No model.) Patented in Norway June 18, 1890, No. 1,691.

To all whom it may concern:

Be it known that I, PEDER THORESEN, sausage-maker, a subject of the King of Norway, and a resident of Svelvig, Norway, have invented certain new and useful Improvements in Fire-Escapes, (for which I have received Letters Patent of Norway, No. 1,691, dated June 18, 1890,) of which the following is a specification.

My invention relates to improvements in fire-escapes; and the object of the invention is to produce a fire-escape of simple construction, which may be quickly secured in position upon a burning building, and by means of which the occupants of the building may quickly and safely descend to the ground.

To this end my invention consists in a fire-escape constructed substantially as herein-after described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the fire-escape as applied to a building. Fig. 2 is an edge view of the same, the building being shown in section; and Fig. 3 is an enlarged detail view, partly in section, of the main chute and the clamping device by means of which it is suspended from a window.

In carrying out my invention the buildings on which the fire-escape is to be used are provided with pulleys *a*, of any suitable construction, which are suspended at intervals along the upper portion of the building and above the windows, and small wire ropes are arranged upon the pulleys, so that when the fire-escape is to be used larger ropes *b* may be secured to them and the larger ropes hauled up over the pulleys.

The fire-escape is provided with a main chute *c*, which is preferably in tubular form, and is made of canvas or other strong material, which is corded to increase its strength. The cloth may be made of one piece or of several smaller lengths, which are clasped together, and when made in this way the upper portions should overlap the lower on the inside, so that the chute will be smooth on the inside. The upper end of the chute is suspended on a bar *d*, which bar is hinged, as

shown at *d'*, so that it may be swung horizontally, and the bar carries a fixed jaw *e* and a movable jaw *f*, which latter is arranged on the inner threaded end of the rod opposite the fixed jaw. The lower end of the fixed jaw *e* is connected with the outer end of the bar *d* by a diagonal brace-rod *d*², which is also hinged at *d'*.

The movable jaw is adjusted by means of a hand-nut *g*. The bar *d* is provided with a chain *h*, which has a central loop *i*, and the apparatus may be raised by means of the chain in the manner described below. The chute is provided with a bent rod *k* at or near its top, which holds it open, so that the people in a building can easily enter it.

A cord *l* is secured to the central portion of the chain *h* and extends downward through the chute, and this cord affords a convenient hand-hold, so that a person descending through the chute may grasp it, and thus regulate the velocity of his descent. The chute is provided at intervals with handles *m*, so that when it is used the people below may grasp the handles and carry out the lower end of the chute, so that it shall have the proper inclination.

The fire-escape is adjusted and operated in the following manner: The main rope *b* is drawn up through the pulley *a* and a person is drawn up by the rope, and the chute is raised at the same time or afterward by means of the chain *h*. The person who has gone up with the device then clamps the bar *d* to the sill *E* of a window, which is done by fixing the jaw *e* upon the outside of the sill and forcing the jaw *f* against the inner side of the sill, as shown in Fig. 2. The bar *d* may then be swung so that the chute will extend downward parallel with the building or outward from it, and the people who are to descend jump into the chute, grasp the cord *l*, and slide downward through it. The lower end of the chute is meanwhile held at the proper inclination by people below, who grasp the handles *m*.

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

1. In a fire-escape, the horizontal supporting-bar *d*, hinged between its ends, as at *d'*,

the inner section of the bar being screw-threaded and provided with vertical fixed and movable jaws *e f*, the nut *g* for operating the movable jaw, and the brace *d*², secured to the under side of the bar *d* and hinged at its inner end to the fixed jaw *e*, substantially as set forth.

2. A fire-escape comprising a hinged bar screw-threaded at one end, a fixed jaw secured to the bar, a movable jaw mounted upon the bar and adjustable by means of a nut, a flexible chute suspended from the bar

and provided with handles, and a cord extending downward through the chute, substantially as described. 15

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 27th day of August, 1890.

PEDER THORESEN.

Witnesses:

PETER SVENTAD,
AXEL GOTTFRED GRÖNN LAHN.