

(No Model.)

M. MAKELY.
FIRE ESCAPE.

No. 457,285.

Patented Aug. 4, 1891.

Fig. 1.

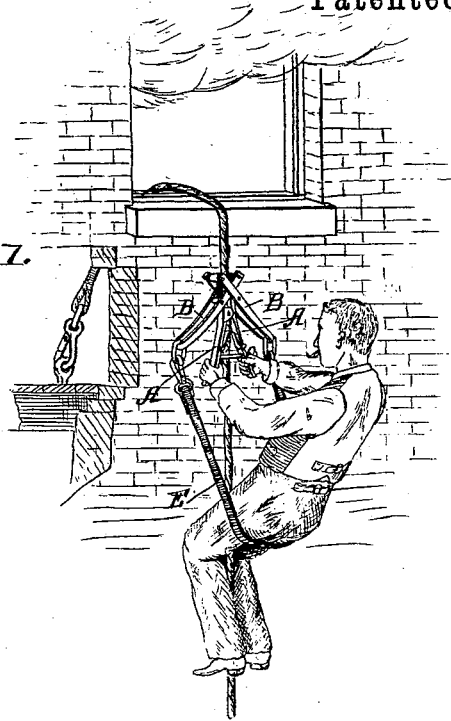


Fig. 2.

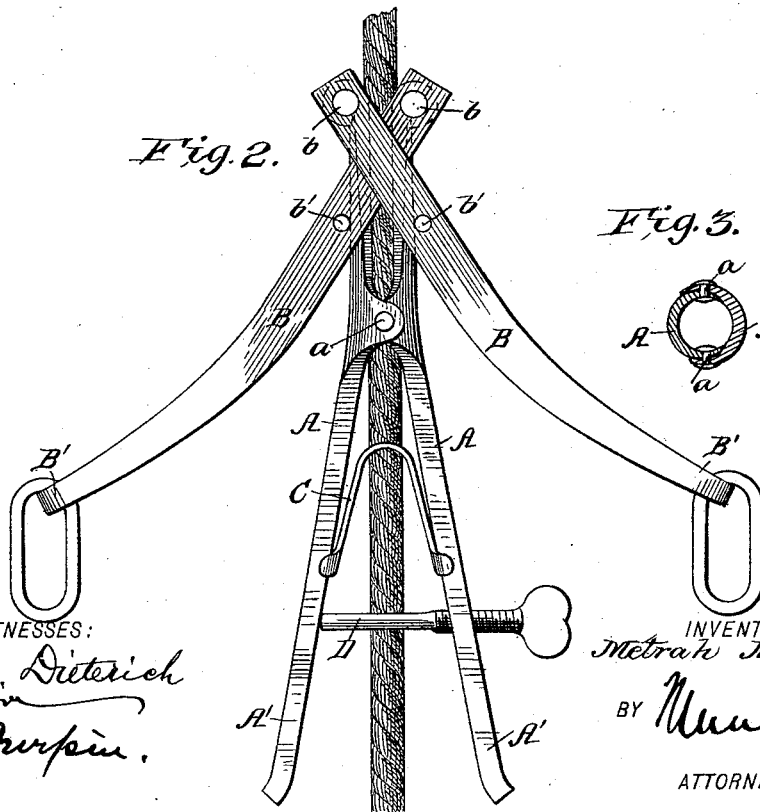


Fig. 3.



WITNESSES:
Fred G. Dietrich
P. B. Turpin.

INVENTOR:
Metrah Makely.
BY *Munn & Co.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

METRAH MAKELY, OF NEW BERNE, NORTH CAROLINA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 457,285, dated August 4, 1891.

Application filed February 20, 1891. Serial No. 382,267. (No model.)

To all whom it may concern:

Be it known that I, METRAH MAKELY, of New Berne, in the county of Craven and State of North Carolina, have invented a new and useful Improvement in Fire-Escapes, of which

the following is a specification.
My invention is an improved fire-escape, and has for its object to provide a simple novel construction which may be used upon an ordinary rope and can be safely used and readily controlled in the escape and descent of persons from burning buildings.

The invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 shows the invention as in use, and Figs. 2 and 3 are detail views of the improved escape.

The improved escape, as shown, consists of the two clamp-sections A A and the two pressers B B. The clamp-sections A A are pivoted together at *a* and have their portions above such pivot arranged and adapted to press and clamp a rope passed longitudinally between them. Below the pivot *a* the clamp-sections are extended to form handles A', which are actuated apart by an interposed spring C to cause the upper portions to clamp against the rope, and may be pressed together or toward each other by the operator to release the clamp from the rope and permit the descent of the escape and the person supported thereby.

A screw D, threaded through one handle and arranged for engagement by the inner end of the other handle, forms an adjustable stop to limit the extent to which the clamp may be opened or eased up on the rope in the descent of the escape.

The pressers B are jointed at their upper ends at *b* to the upper ends of the clamp-sections A, and extend thence diagonally across the clamp, and are each provided with a cross-pin or bearing portion *b'*, arranged to bear against the outer side of the clamp-section opposite that to which the particular presser is jointed. The weight of the escaping person is borne upon the outer ends of the pressers by means of a sling connected with said pressers, as shown, or in other suitable manner.

In the construction as shown the pressers are in the nature of bars bent between their

ends, forming the bend at B' to support the link to which the sling E is connected and having the arms extending along the opposite sides of the clamp, and jointed at their ends to the clamp-section by means of the pivot-bolts, as shown. This construction is simple and strong, can be cheaply made, and is easy of application to the rope and efficient in use.

The operation is simple and will be readily understood. The rope passes down between the clamp-sections, and the weight of the person upon the pressers causes the same to force their bearings *b'* against the outer sides of the opposite clamp-sections, forcing such sections firmly against the rope and clamping the escape against any downward motion. It will be seen that the leverage secured by the location of the joints *b* and bearings *b'* of the pressers is such that the clamps will be forced by the weight of the escaping person so strongly against the rope as to stop the descent of the escape, and to prevent the escape from gaining a downward headway before such weight has time to act. I arrange the spring C to force the clamp-sections against the rope. To permit the escape to descend, the person descending grasps the handles A' of the clamp-sections and presses them toward each other. This releases the clamp-sections or eases up their pressure on the rope and permits the descent of the escape. The screw D may be set to limit the inward movement of the handles to prevent the clamp from being opened too far. By properly manipulating the handles the escape may be lowered slowly to the ground.

Having thus described my invention, what I claim as new is—

1. An improved fire-escape comprising a pair of clamp-sections pivoted together and having above such pivot portions arranged to press against and grip the rope, and a pair of pressers co-operating with the said clamp-sections and arranged and adapted to sustain the weight of the escaping person, substantially as set forth.

2. An improved fire-escape comprising a clamp adapted to grip the rope and having handle portions, whereby the pressure or grip of such clamp upon the rope may be regulated, and a pair of pressers arranged to sustain the weight of the escaping person and to

operate by the force of such weight to tighten the clamp upon the rope, substantially as shown and described.

3. In a fire-escape, the combination of a
5 clamp composed of pivoted sections jointed
midway their ends and arranged above such
joint to press upon the rope and below such
joint to serve as handles, by which the pressure
of the sections upon the rope may be
10 regulated, and presser devices arranged to
sustain the weight of the escaping person and
to operate by the force of such weight to
tighten the pivoted clamp-sections upon the
rope, substantially as set forth.

15 4. The improved fire-escape herein described,
composed of the clamp and the pressers,
such pressers being jointed to the clamp
at the opposite sides thereof and extended
thence diagonally alongside and across the
20 clamp and provided with bearing portions
arranged to press against the clamp at the
sides of the clamp opposite their joints
there-with, substantially as set forth.

5. In a fire-escape, the combination of the
25 pair of clamp-sections and the pair of pressers
jointed to such clamp-sections and provided
with bearing portions arranged to engage the

clamp-sections, substantially as and for the
purposes set forth.

6. The combination, in a fire-escape, of the 30
clamp-sections A, pivoted together at *a*, the
pressers B, jointed at *b* to the clamp-sections
and provided at *b'* with bearing portions arranged
to press against the outer sides of the
clamp-sections, substantially as set forth. 35

7. An improved fire-escape comprising the
clamp adapted to grip the rope and the pressers
jointed to the said clamp and formed of
bars bent between their ends and provided
with bearings arranged to press against the 40
opposite sides of the clamp, substantially as
set forth.

8. The fire-escape herein described, consisting
of the clamp-sections A, pivoted at *a*
and having handles A', the spring C, and 45
screw D, and the pressers B, jointed at *b* to the
clamp-sections and provided with bearings
b', all substantially as and for the purposes
set forth.

METRAH MAKELY.

Witnesses:

W. B. SMITH,

EDWD. M. SMALLWOOD.