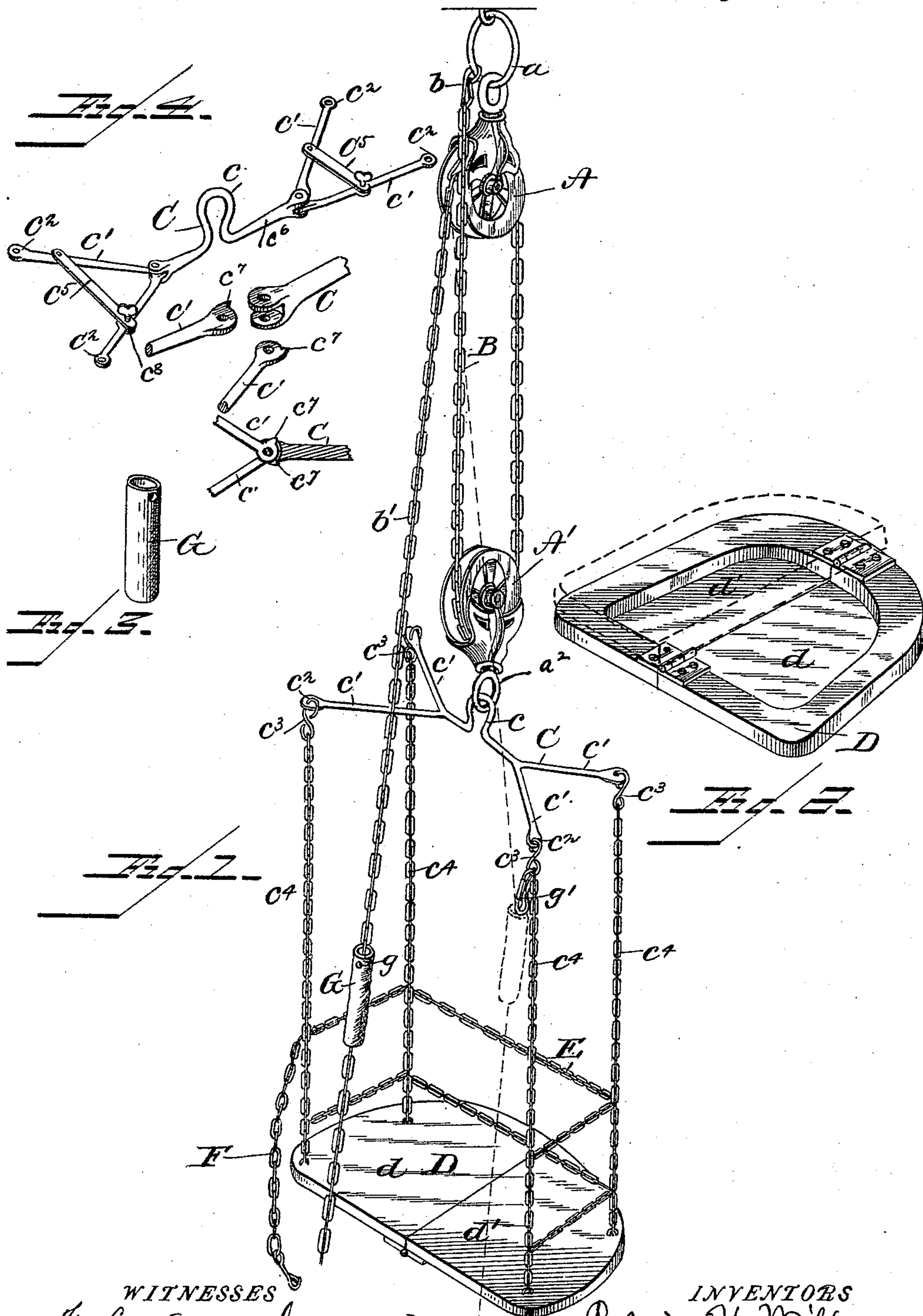


(No Model.)

C. H. WILBER & C. E. LAVERY.  
FIRE ESCAPE.

No. 538,398.

Patented Apr. 30, 1895.



WITNESSES  
H. L. Ouraud,  
Jos. Gregory

INVENTORS  
Calvin H. Wilber  
Charles E. Lavery  
By J. R. Fitzgerald Attorney



# UNITED STATES PATENT OFFICE.

CALVIN H. WILBER AND CHARLES E. LAVERY, OF NEWTON'S CORNERS,  
NEW YORK.

## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 538,398, dated April 30, 1895.

Application filed March 11, 1895. Serial No. 541,258. (No model.)

*To all whom it may concern:*

Be it known that we, CALVIN H. WILBER and CHARLES E. LAVERY, citizens of the United States, residing at Newton's Corners, in the county of Hamilton, State of New York, have invented certain new and useful Improvements in Fire-Escapes; and we do hereby 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.

Our invention relates to improvements in fire escapes.

The invention will first be described in connection with the accompanying drawings, and then particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a device embodying our invention. Fig. 2 is a bottom plan view illustrating the seat, the folded position of the same being shown in dotted lines. Fig. 3 illustrates the friction and guiding device detached. Fig. 4 is a detail view showing a modified form of the spreader.

Referring to the drawings A, A' are two blocks or pulleys of ordinary construction and made of iron. The block A is provided with a securing device *a* by means of which the block may be fastened to any suitable support or hanger, the securing device in this case consisting of an iron ring, as shown. A chain B is attached to the securing device or ring *a* by a snap-hook *b* and is reeved over the blocks or pulleys A, A', as shown, the fall *b'* being of such length as to reach to the ground when the escape is lowered.

The block A' is provided with an eye *a*<sup>2</sup> through which passes a central upward-extending loop *c* formed integral with a spreader C, having at each end diverging arms *c'* provided at their free extremities with eyes *c*<sup>2</sup> to which are secured, by means of S-hooks *c*<sup>3</sup>, four depending chains *c*<sup>4</sup>, attached at their lower ends to a seat D, composed of two portions *d*, *d'* hinged together on their under sides in order that they may fall together downward. A safety-chain E connects the depending chains *c*<sup>4</sup> so as to form a railing around the seat on three sides, while the fourth side is arranged to be closed by a removable front or belt chain F. Upon the fall *b'* is threaded

a friction and guide device consisting in this case of a short tube G made from leather or rubber and having a hole, *g*, for the insertion of a snap-hook *g'* which is permanently secured by means of an eye to one of the S-hooks *c*<sup>3</sup>.

The operation of our device is as follows: A person desiring to escape from a burning building may place himself upon the seat D, the seat of course being opened. The person so escaping after fastening the belt chain F in place may lower himself to the ground by grasping the friction device G and swinging off from the building, allowing the fall *b'* of the tackle to run through the tube G as slowly or as rapidly as desired, the rate of speed being determined by the friction on the chain, which of course depends upon the amount of pressure put upon the leather or other tube G by the hand. In case the fall *b'* is manipulated by some one standing upon the ground, as when women or children are being rescued from a building, the tube G is fastened to the snap-hook *g'* and then serves as a guide for the fall *b'*, whereby the person on the ground operating the device, by holding the end of the fall away from the building may guide the seat D so that it will descend at an angle instead of in a vertical line, whereby in case of a fire breaking out in the lower windows the person occupying the seat D will not be burned. Furthermore, the tube G may be employed in the same manner as a guide when the seat is being again hoisted to the upper stories of a building by a person on the ground, in order to prevent the seat from dangling against the building or the tackle from being twisted.

The entire device may be suspended from a bracket in a box secured to the wall of a building above the window, either inside or outside the wall, the latter being preferable, and the box may be provided with a downward-swinging bottom secured by a latch, so that when the latch is unfastened the bottom will swing down and the seat may be lowered from the box until opposite the window. Since the bottom seat D may be folded, the whole device may be packed in a small space and is easily transported from place to place.

In Fig. 4 we have shown a modified form of



our device in which the spreader C has a central portion  $c^6$  to which the arms  $c'$  are pivoted, so that they may be folded together as shown, the said arms  $c'$  at their pivoted ends  
 5 having stops  $c^7$  to prevent lateral displacement when in operation. To one of the arms  $c'$  on each end of the spreader, and near the end is pivoted a brace rod  $c^5$  designed to connect with the opposite arm and to be secured  
 10 in place by a thumb nut  $c^8$  entering a screw threaded hole therein, for the purpose of keeping the said ends in the operative position.

Having thus fully described our invention, what we claim as new, and desire to secure by  
 15 Letters Patent, is—

1. In a fire escape the combination, with a pair of iron blocks, a chain tackle and a spreader carried by the traveling block, a series of depending chains, a series of S-hooks  
 20 connecting said chains to the spreader, and a seat secured to the depending chains, of a tube of flexible material through which the fall of the tackle passes, and means for removably securing said tube to one of the  
 25 S-hooks, substantially as described.

2. In a fire escape the combination, with a pair of iron blocks, a chain tackle and a spreader carried by the traveling block, of a series of depending chains attached to the spreader, a seat carried by said chains, a flexible tube through which the fall of the tackle passes, said tube having a hole at one end, and a snap hook secured to one of the spreader arms, and arranged to engage the hole in the flexible tube, substantially as described and  
 35 for the purpose set forth.

3. In a fire escape, a spreader device composed of a central portion, to which are hinged arms adapted to be folded together, said arms being held apart in their operative position  
 40 by brace rods, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

CALVIN H. WILBER.  
 CHARLES E. LAVERY.

Witnesses:

A. W. TERRY,  
 GEO. E. TERRY.