(No Model.)

W. E. WABNITZ.

PORTABLE FIRE ESCAPE.

No. 588,889. Patented Aug. 24, 1897.

FIG. 1.

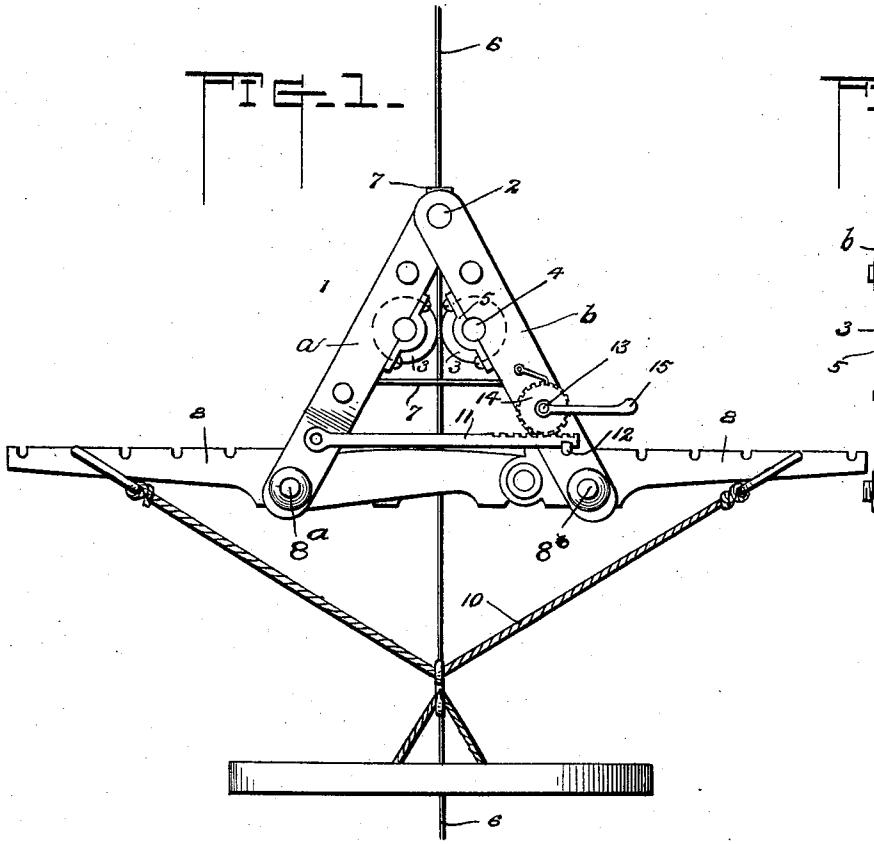


FIG. 3.

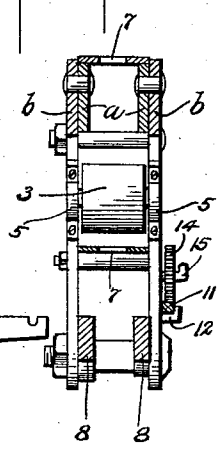


FIG. 2.

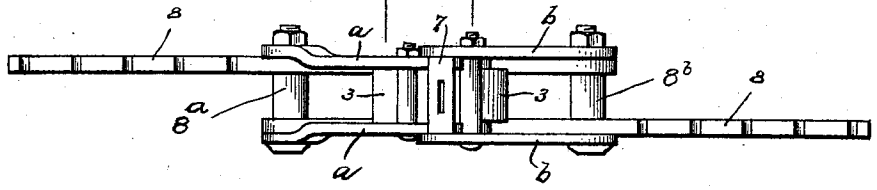
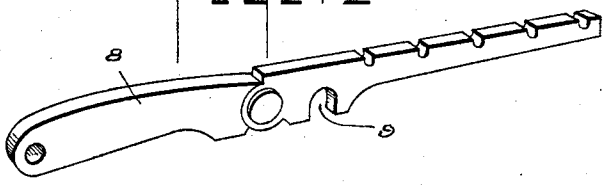


FIG. 4.



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM E. WABNITZ, OF LOUISVILLE, KENTUCKY.

PORTABLE FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 588,889, dated August 24, 1897.

Application filed May 11, 1897. Serial No. 636,018. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. WABNITZ, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Portable Fire-Escapes; 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 has relation to fire-escapes; and the object is to provide a simple, strong, and efficient device of this character by means of which a person may escape from a burning building and reach the ground in safety.

With this object in view the invention consists of certain features of construction and combination of parts which will be hereinafter fully set forth and claimed,

In the accompanying drawings, Figure 1 is a side elevation of my improved fire-escape, showing it in position for use. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical sectional view, and Fig. 4 is a detail view of one of the jointed lever-arms.

In said drawings, 1 denotes two frames, each of which consists of two bars *a b*, pivoted together at their upper ends by rivets 2.

Rollers 3 have their stud-shafts 4 journaled in boxes 5, secured to the inner edges of the frames and are adapted to engage a metallic tape or wire 6 and by friction prevent the too rapid descent of the frame with its supporting-weight.

7 denotes guide-plates arranged above and below the rollers and which serve to guide the tape to the rollers free of curls, twists, or kinks.

8 denotes jointed levers, one being secured to a pivot-bolt 8^a, connecting the lower ends of parts *a a* of one frame and extending over the pivot-bolt 8^b, connecting the ends of parts *b b* of the other frame, and the other secured to the pivot-bolt 8^b, and extending over the pivot-bolt 8^2. These levers are provided with notches 9, which are adapted to seat upon said bolts and are also provided with graduated notches on their upper edges for a purpose hereinafter to appear.

10 denotes a sling or strap which is adapted to be fastened around the body of a person and having eyes at its ends engaged in the graduated notches of the jointed levers.

In use one end of the tape is secured to a window-frame or to some object in the room, a sling or strap is passed around the body of the person, and if the person weighs, say, one hundred and fifty pounds he engages the loops at the ends of the sling or strap with the notches indicated by that number. This is a wise provision, for should a heavy person attempt to descend and the loops of the sling be engaged with the toggle-levers at their extreme outer ends it is evident that said levers would draw the sections of the frame together and cause the rollers carried by said sections to so tightly clamp the tape as to prevent the descent of the person.

By graduating the jointed levers a person may engage the ends of the sling with them at points corresponding to his weight, so that should a person weighing two hundred and fifty pounds attempt to descend he may do so with as much ease as a person of a considerably lighter weight.

To regulate the speed or rapidity of the descent, I provide a brake mechanism which consists in pivoting to one of the frames a rack-bar 11 and having its other end projecting across and seated upon a stud 12, projecting from the side of the other frame.

Journaled upon a stud 13 is a gear-wheel 14, which engages the rack-bar and is provided with a crank 15, by means of which it may be rotated and cause the sections of the frame to be drawn together, and thus increase the friction of the rollers upon the tape.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a fire-escape, the combination with two frames pivoted together and provided with coöperating friction-rollers, of jointed levers connected to the lower ends of said frame and provided with notches to engage

the bolts of the opposite frames, a tape extending between said rollers, and a sling or strap adapted to be connected to the outer free ends of said jointed levers, substantially as set forth.

2. In a fire-escape, the combination with two frames pivoted together and provided with coöperating friction-rollers, of jointed levers connected to the lower ends of said frame, and provided with notches to engage the bolts of the opposite frames, a tape extending between said rollers, and a sling or strap adapted to be connected to the outer free ends of said jointed levers, the edges of said levers being provided with graduated notches, substantially as set forth.

3. In a fire-escape, the combination with two frames pivoted together and provided with coöperating friction-rollers, of jointed levers connected to the lower ends of said frame, and provided with notches to engage the bolts of the opposite frames, a tape extending between said rollers, a sling or strap adapted to be connected to the outer free ends of said jointed levers, and a rack-bar pivoted to one of said frames and projecting across and supported upon the lug extending from the other frame, a wheel engaging said rack, and a crank for rotating said wheel to spread or draw together the sections of the frame, substantially as set forth.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

WILLIAM E. WABNITZ.

Witnesses:
P. MELCHER,
CHAS. A. SCHAEFER.