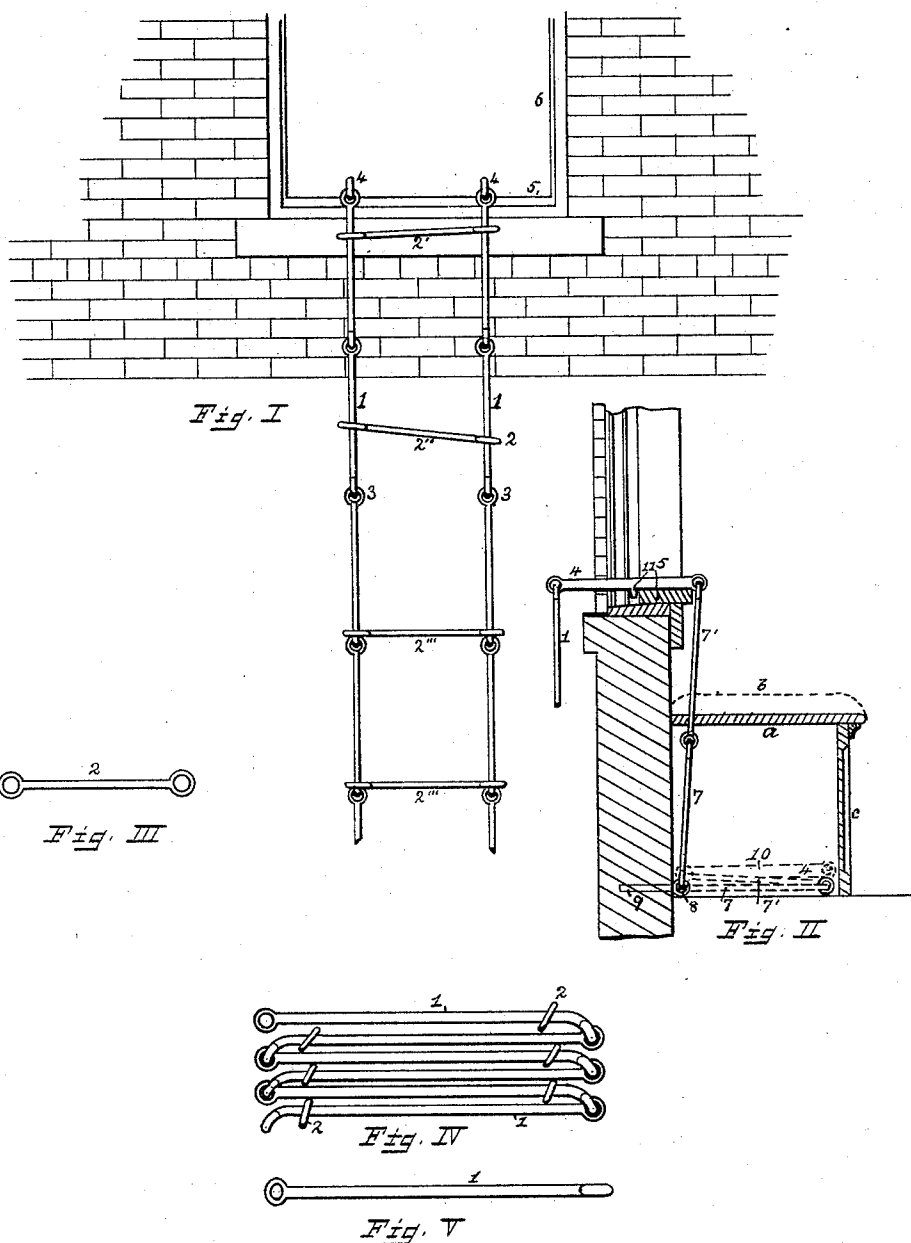


(No Model.)

E. A. STRANG.
FIRE ESCAPE LADDER.

No. 467,525.

Patented Jan. 26, 1892.



WITNESSES:
Wright Horton
R. E. Briggs.

INVENTOR
Edgar A. Strang
BY *H. Anderson*
ATTORNEY.

UNITED STATES PATENT OFFICE.

EDGAR A. STRANG, OF MONTROSE, NEW YORK, ASSIGNOR OF ONE-FOURTH
TO EDMUND C. STOUT, OF NEW BRUNSWICK, NEW JERSEY, AND WILLIAM
M. STOCKBRIDGE, OF WASHINGTON, DISTRICT OF COLUMBIA.

FIRE-ESCAPE LADDER.

SPECIFICATION forming part of Letters Patent No. 467,525, dated January 26, 1892.

Application filed November 24, 1890. Serial No. 372,545. (No model.)

To all whom it may concern:

Be it known that I, EDGAR A. STRANG, a citizen of the United States, residing at Montrose, county of Westchester, State of New York, have invented a new and useful Improvement in Fire-Escape Ladders, of which the following is a specification.

My invention relates to the class of fire-escapes that are to be folded beneath a window within a room, to be flung without when required for use, and its aim is something that will be convenient, safe, and indestructible. I attain the objects by the means set forth in the accompanying drawings, in which like letters and figures refer to like parts throughout the several views.

Figure I represents the escape settling into position for use. Fig. II is a sectional side elevation representing the method of using the escape and also of its concealment within a room. Fig. III is a top view of one of the cross-arms of the ladder. Fig. IV represents one form of the ladder folded together; and Fig. V is a top view of one of the chain-sections.

The ladder is constructed entirely of iron or steel, and its sides are composed of bars provided with eyes upon each end, as at 1, Fig. I, and hooked together in chain-like form, as shown. The cross-arms 2, as shown in Figs. I and II, are formed in like manner, the eye upon each end inclosing one of the sides of the ladder. This cross-arm is a distinctive feature of my invention. If its eyes were linked in with the eyes forming the joints in the sides, it would be exceedingly difficult to construct them so the whole would be compactly folded together. I do not so link them in, but apply them, as will be seen, so they are free to be moved from one end to the other of the side links.

In Fig. IV I show a form of link for the sides that is adapted to be very closely folded, but for clearness it is represented loosely folded. One of the advantages of the movable cross-arm is here shown to consist of its offering no impediment to the neatness and compactness of the packing of the ladder. If it were attached to the sides permanently, that

much more space would be occupied at each end of the fold; but as the arms are movable they can be so disposed that one will in no wise interfere or come in contact with another. When the ladder is thrown from a window, the arms readily fall to their places, as shown in Fig. I, in which 1'' 2''' are represented as in their proper places and 2'' 2'' are just dropping to position.

Fig. II represents the ladder attached to a building. Within a room a casing, as *a c*, may be provided, and being cushioned may be made to serve as a window-seat, the top being readily removable. Close to the floor an eye-staple 9 is secured to the wall, to which links 7 7' are attached, these links being more or less than two, as might be required, and of a length to suit the height of the window from the floor and connect at the top with a bar 4, which is made rectangular in form and larger than the links of the ladder, since it is desirable not to have it bend under any strain put upon it. This bar is made long enough to admit of the inside link being close to the window-sill, while the bar will project far enough to hold the ladder a little distance from the face of the wall of the building. To prevent this bar being pushed toward the room so as to bring the ladder against the wall, I provide a spur 11 on its under side, which projects downward outside of the window-sill. All these links, those inside and those outside of the room and the window-sill bar, are designed to be as near as practicable of equal lengths, so they may be the more neatly folded in the box within the room and have each link require no more space than necessary.

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

1. A fire-escape ladder having its sides made up of sections linked to one another and eyed cross-bars adapted to slide upon the side sections and rest upon the eyes formed therein.

2. The combination, with a window-casing slotted as shown, of a fire-escape ladder made up of sections linked together, and eyed cross-bars adapted to slide upon the side sections

and rest upon the eyes formed therein, and a
window-sill bar for suspending said ladder,
said bar being secured at its inner end by links
attached to the wall and having a spur or
5 projection upon its under side fitting the slot
in the window-casing, substantially as and
for the purpose specified.

Signed at Peekskill, county of Westchester,
State of New York, this 1st day of November,
1890.

EDGAR A. STRANG.

Witnesses:

DAVID W. TRAVIS,
JOHN C. DARROW.