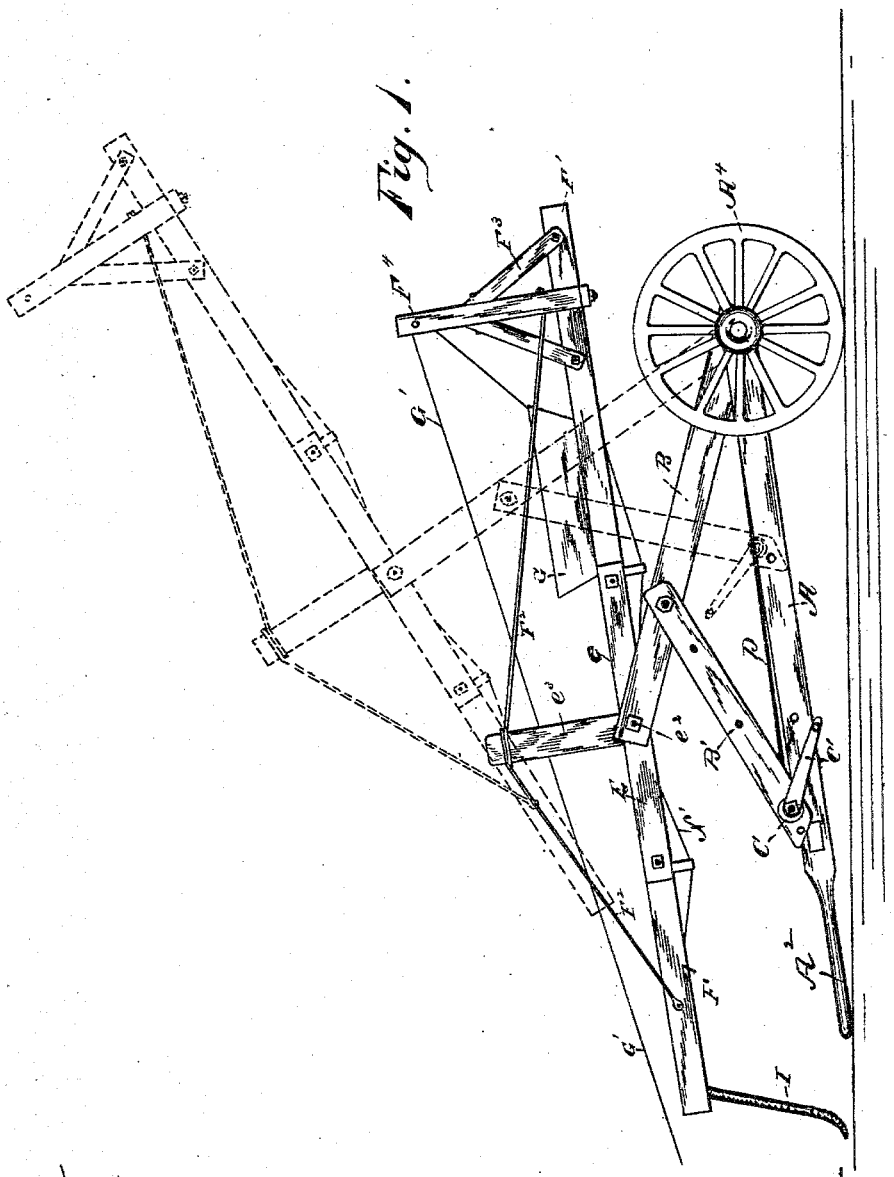
(No Model.) 3 Sheets—Sheet 1

L. G. PETTIS.

FIRE ESCAPE.

No. 303,042. Patented Aug. 5, 1884.

Fig. 1.



Witnesses:
E. F. Mundock
W. B. McKenna

Inventor:
Lester G. Pettis
Howard A. Thom,
Atty.

(No Model.) 3 Sheets—Sheet 2.

L. G. PETTIS.

FIRE ESCAPE.

No. 303,042. Patented Aug. 5, 1884.

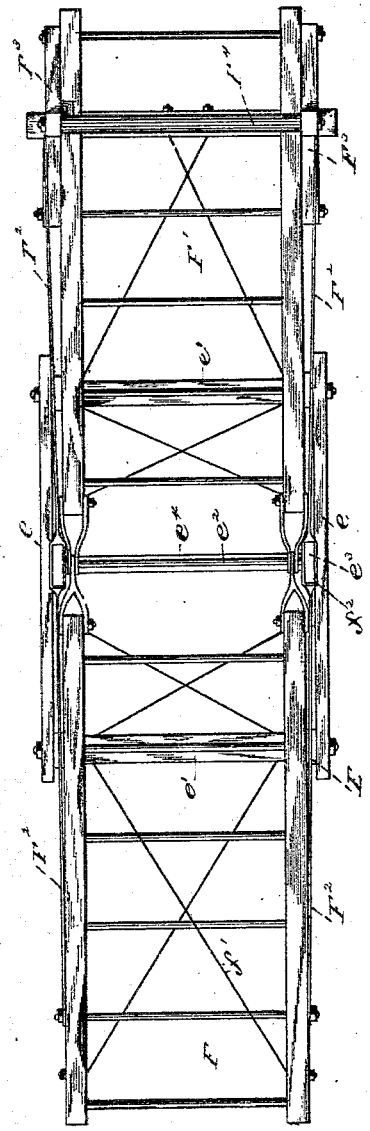


Fig. 2.

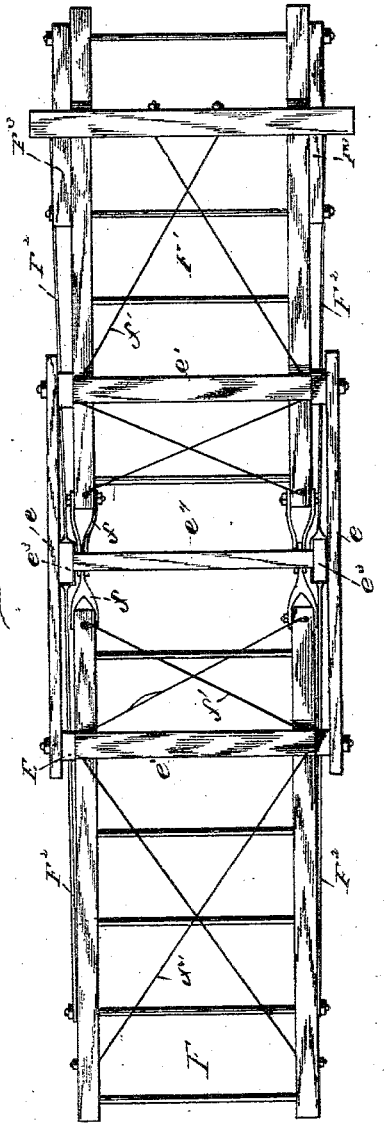


Fig. 3.

Witnesses:
E. F. Murdock
W. B. Mackenna

Inventor:
Lester G. Pettis
Howard A. Knox.
Atty.

(No Model.) 3 Sheets—Sheet 3.

L. G. PETTIS.

FIRE ESCAPE.

No. 303,042. Patented Aug. 5, 1884.

Fig. 4.

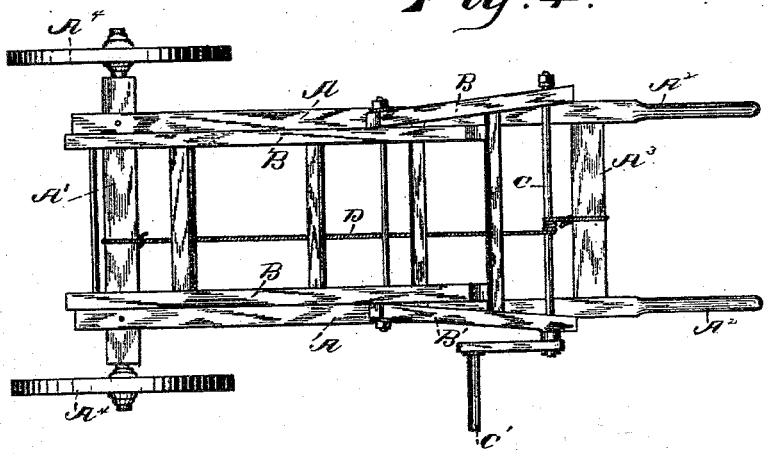
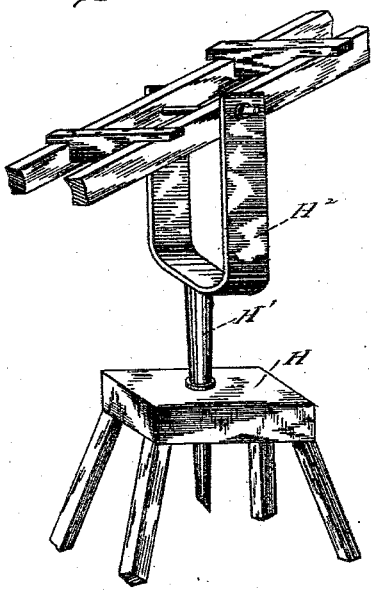


Fig. 5.



Witnesses:
E. F. Murdock
W. B. McKenna

Inventor:
Lester G. Pettis.
Wm. A. Simonds
Atty.

UNITED STATES PATENT OFFICE.

LESTER G. PETTIS, OF PLATEA, PENNSYLVANIA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 303,042, dated August 5, 1884.

Application filed January 25, 1884. (No model.)

To all whom it may concern:

Be it known that I, L. G. PETTIS, of Platea, county of Erie, and State of Pennsylvania, have invented a new and useful Improvement in Fire-Escapes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use it, reference being had to the accompanying drawings, forming a part thereof.

This invention relates to improvements in fire-escapes; and it consists in the construction, combination, and arrangement of the several parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a side view of my improved machine. Fig. 2 is a top view of the ladders and connecting-frame. Fig. 3 is a bottom view of the same. Fig. 4 is a plan view of the machine with the ladder removed; and Fig. 5 illustrates a preferred manner of supporting the ladder, as will be described.

The carriage is composed of the side beams, A A, having the axle A′ at one end and the handle or shafts A^2 at the other, and provided with the cross-bar A^3 at the end of the side beams opposite the axle A′. The wheels A^4 are spindled on the opposite ends of the axle A′, as shown. Where so desired, the carriage may be provided with two pairs of wheels instead of one, as will be readily understood. Standards B B are pivoted at their lower ends to the beams A A, near the axle A′. Near the upper ends of these standards I pivot one end of bars B′ B′, the opposite ends of which are extended on the outer side of the carriage, and are connected by shaft C, which rests down on beams A, as clearly shown in Figs. 1 and 4. This shaft is provided with crank C′. It will be seen that as the lower end of the bars B′ B′ are moved toward the axle A′ the standards B B will be elevated toward a vertical position, so as to throw the ladder up, all of which is clearly indicated in dotted lines in Fig. 1. In order to secure this adjustment of the bars B′, as described, I provide the rope or chain D, having its opposite ends secured to the axle A′, and cross-bar A^3, and wrapped around the shaft C, so that as the said shaft is revolved it will move along the rope, as will be readily understood from Figs. 1 and 4.

The ladder-connecting frame E is composed of side bars, *e e*, and the end bars, *e′ e′*, connecting the side bars, *e*. This frame is pivoted or journaled on the standards B by the shaft e^2, extended through the said standards and the side bars, *e*, of the frame. The uprights e^3 are also journaled, near their lower ends, on this shaft e^2, and project up above the frame E, for the purposes presently described. The lower ends of these uprights are connected by the cross-bar e^4. The ladders F F′ are provided on their meeting or adjacent ends with metallic clips *f f*, which are journaled on the shaft e^2, and the ladders rest down against the end cross-bars, *e′*, of the connecting-frame, as clearly shown. The ladders are strengthened by rods *f′*, and are braced firmly by the braces F^2, which are secured at one end to the ladders near the outer ends of the latter, and their opposite ends, f^2, are provided with openings slipped down over the uprights e^3, as clearly shown in Figs. 1, 2, and 3. By this means the ladders are firmly braced with the connecting-frame and each other, and additional strength is imparted to the machine. It will be understood that, instead of using the two ladders or sections and the connecting-frame, a single long ladder could be employed; but I prefer the construction shown and described, as thereby a stronger and better device is provided.

On the outer or upper end of the ladder F′ I mount the side frames, F^3 F^3, in which I secure the horizontal bar F^4, which may be used by gymnasts in giving street exhibitions, but which is primarily intended as a pulley for the rope G′, operating the safety boat or carrier G, presently described. This safety-boat is made of any desired shape to receive persons or valuables, and of a width suitable to slide up and down on the rounds of the ladder. It is manipulated and regulated in its ascent and descent by a rope secured to its forward end and passed up over bar F^4, and thence back down to the ground, as shown in Fig. 1. In practice I prefer, instead of pivoting the ladders or connecting-frame directly to the standards, to use a construction such as that shown in Fig. 5. It consists in providing the standards B with a head-block, H, and journaling vertically thereon a shaft, H′, hav-

ing arms H^2, between which the ladder or its connecting-frame may be pivoted. By this means, when the ladder has been elevated to a window of a burning building and a person has climbed out onto its upper end, it may be swung on the pivot-shaft H, so as to throw the person away from the burning building and out of danger, when the descent to the ground may be safely made.

It will be understood that the ladder may be constructed with extension or telescopic ladders made in any of the well-known ways, so that its length could be increased to reach the upper windows of a house. I have not thought it necessary to show such ladders in the drawings.

In operation, it will be understood, the shaft C is turned and the standards elevated, as described. The lower end of the ladder is then drawn down by rope I, and the upper end is thrown high into the air, and may be readily moved to any window desired.

What I claim as my invention, and desire to secure by Letters Patent, is--

1. In a fire-escape, the combination of a suitable supporting-standard, a shaft, e^2, the connected frame E, having end cross-bars, e', the uprights e^3, pivoted on shaft e^2, the ladders F F', pivoted at their adjacent ends on the shaft e^2, and bearing on the cross-bars e', and the braces F^2, secured at one end to the ladders, and having their other ends slipped over the upright e^3, all substantially as and for the purposes specified.

2. The fire-escape, substantially as described and shown, composed of the carriage, the standards B, the bars B', shaft C, rope D, connection E, shaft e^2, uprights e^3, ladders F F', braces F^2, bar F^4, boat G, and rope G', substantially as set forth, and for the purposes specified.

In testimony that I claim the foregoing I append my signature.

LESTER G. PETTIS.

Witnesses:
CALVIN J. HINDS,
GEO. N. CUTLER.