

T. E. LAROEY.

FIRE ESCAPE.

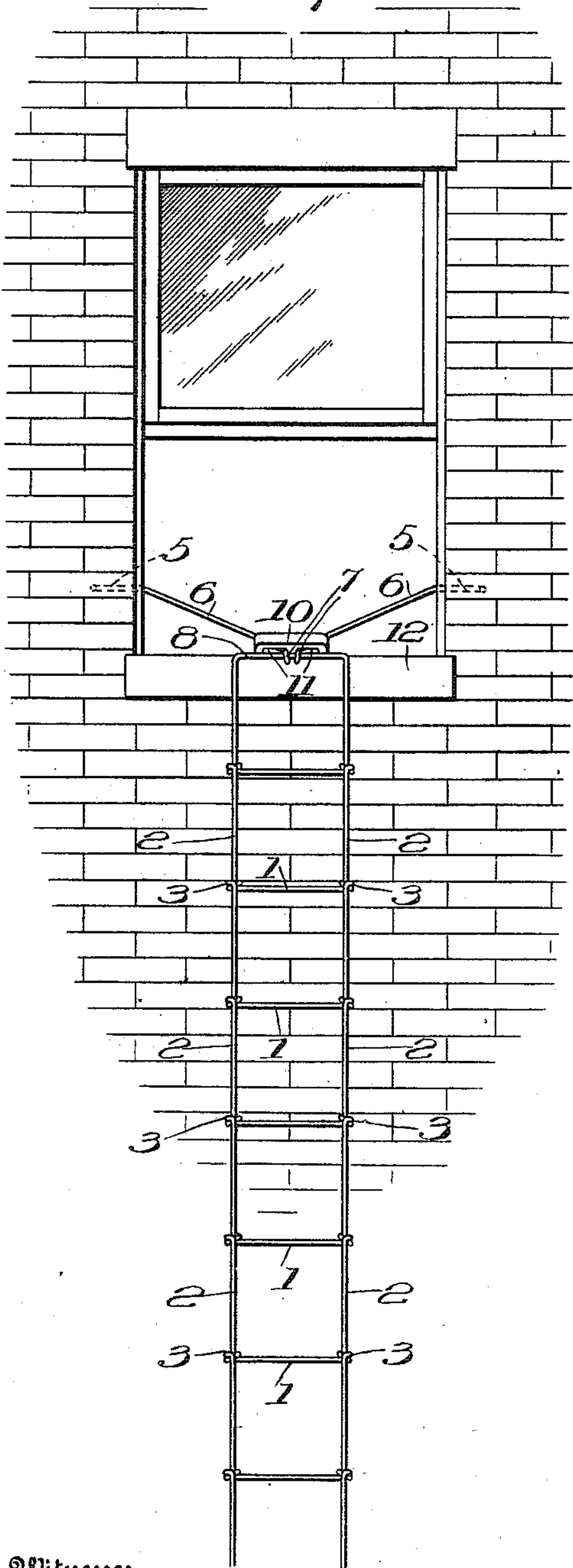
APPLICATION FILED JULY 11, 1910.

Patented June 13, 1911.

2 SHEETS—SHEET 1.

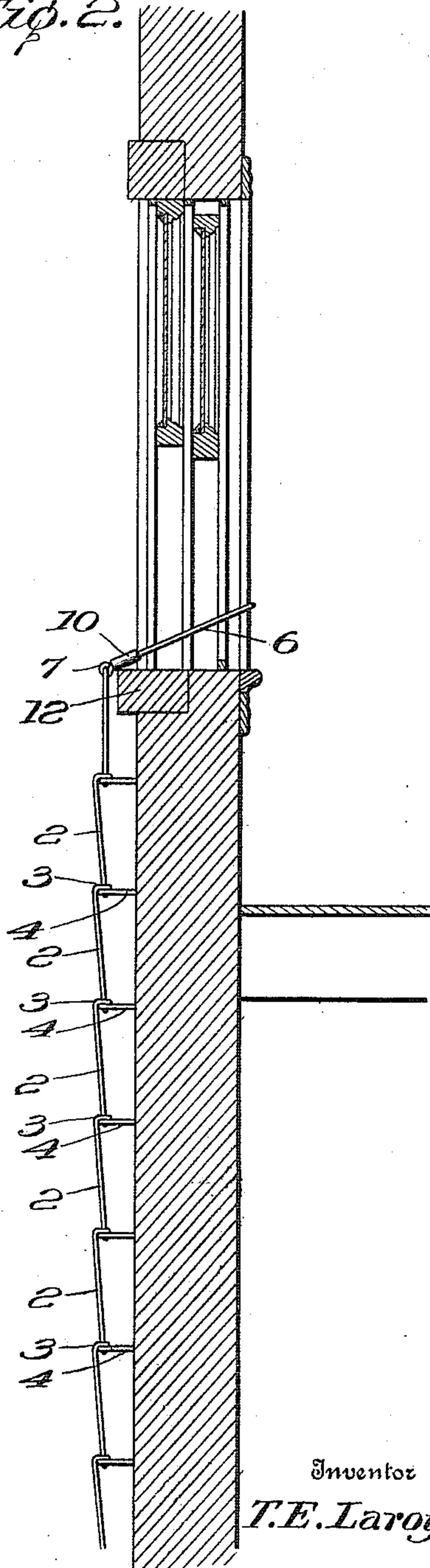
994,760.

Fig. 1.



Witnesses
Allen H. Hoese,
R. M. Smith.

Fig. 2.



Inventor
T. E. Laroy

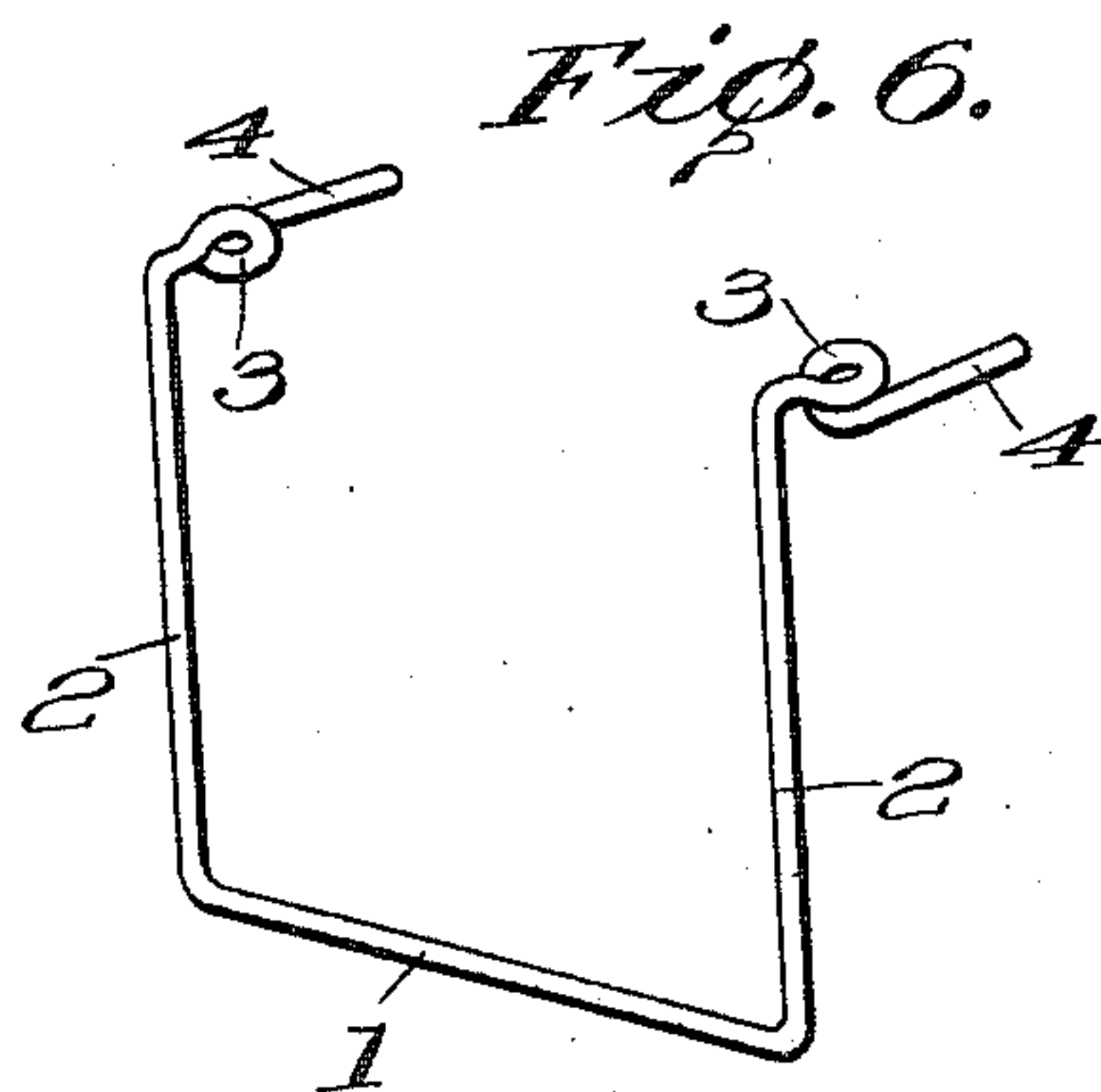
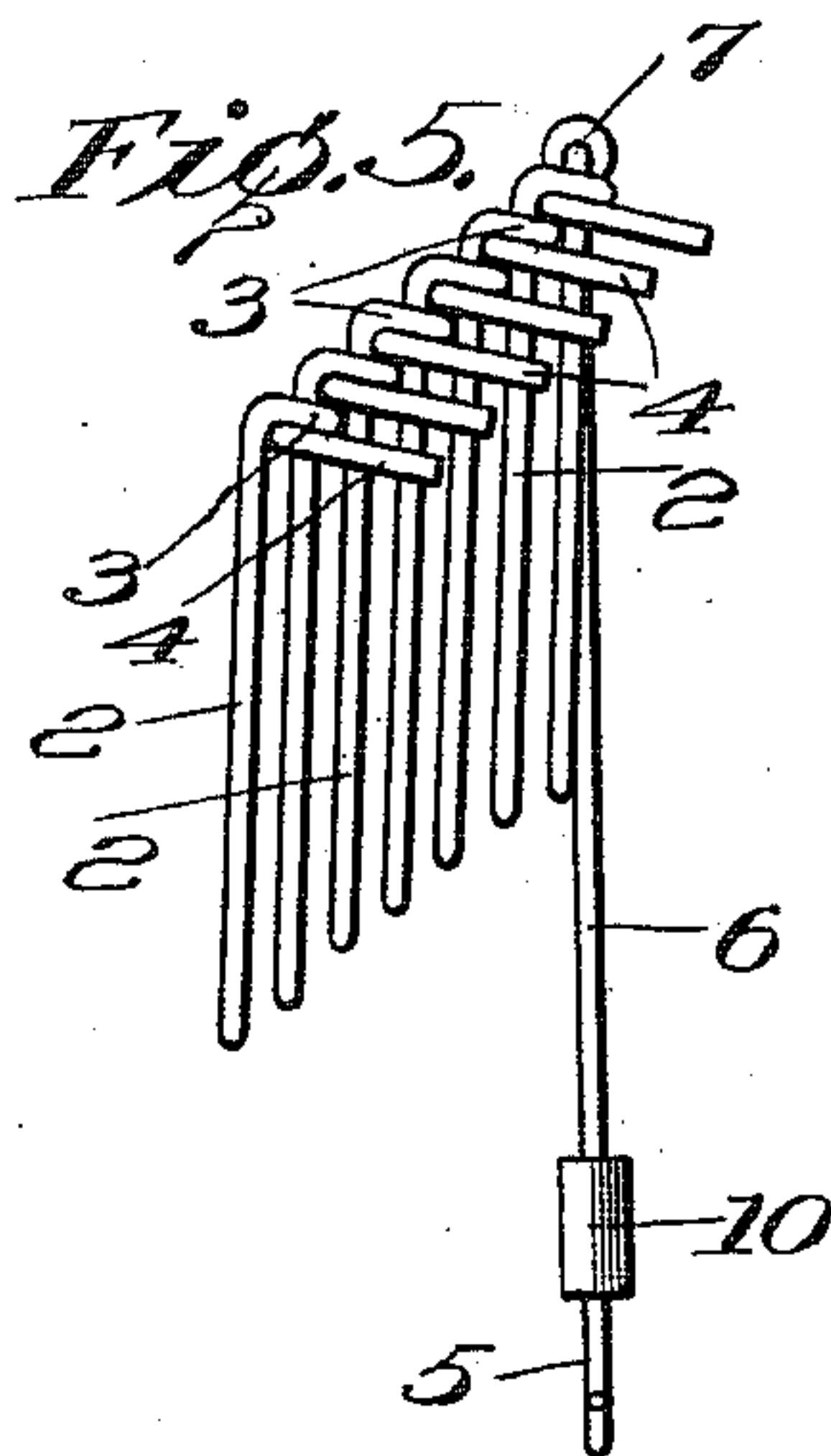
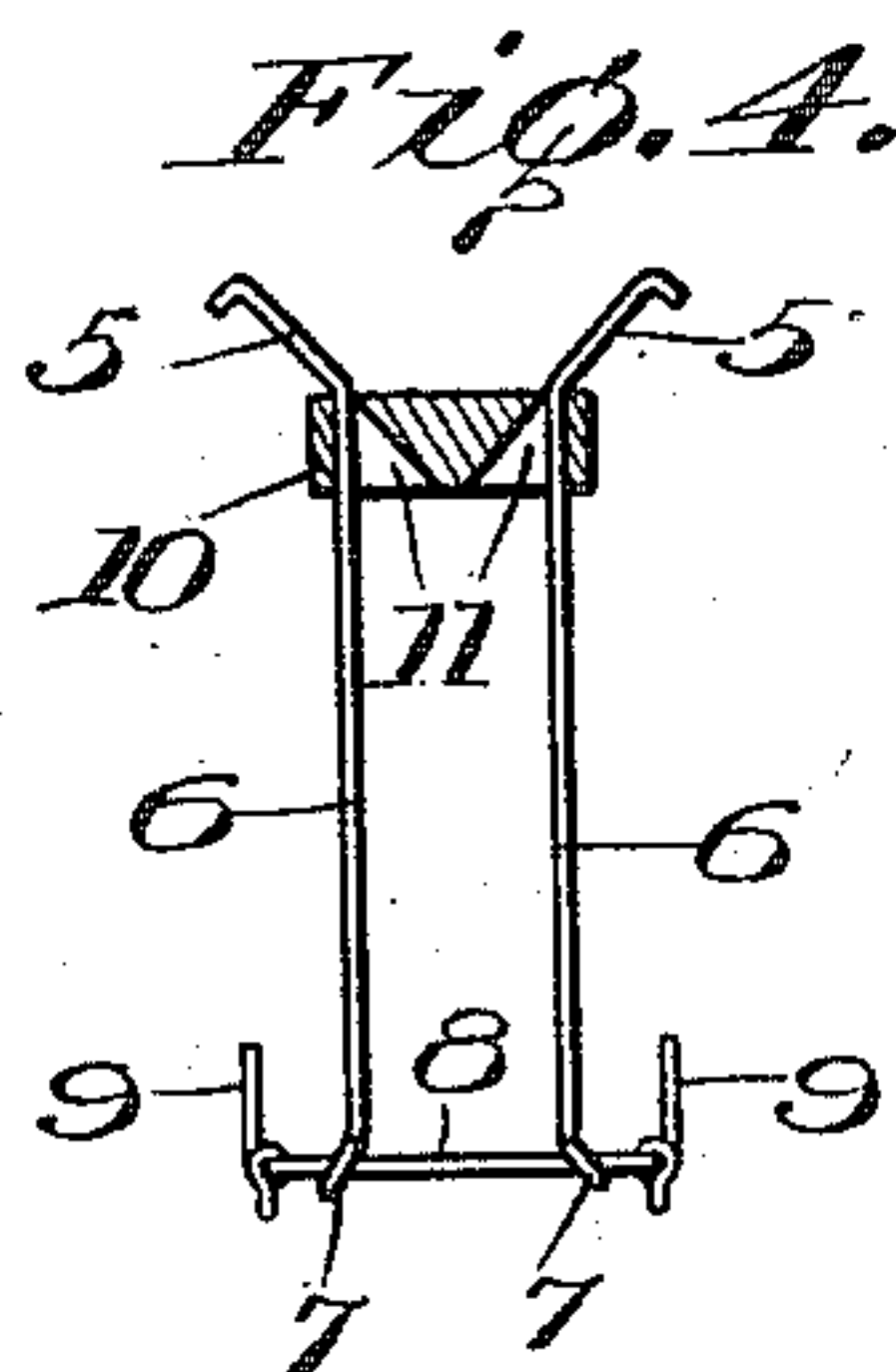
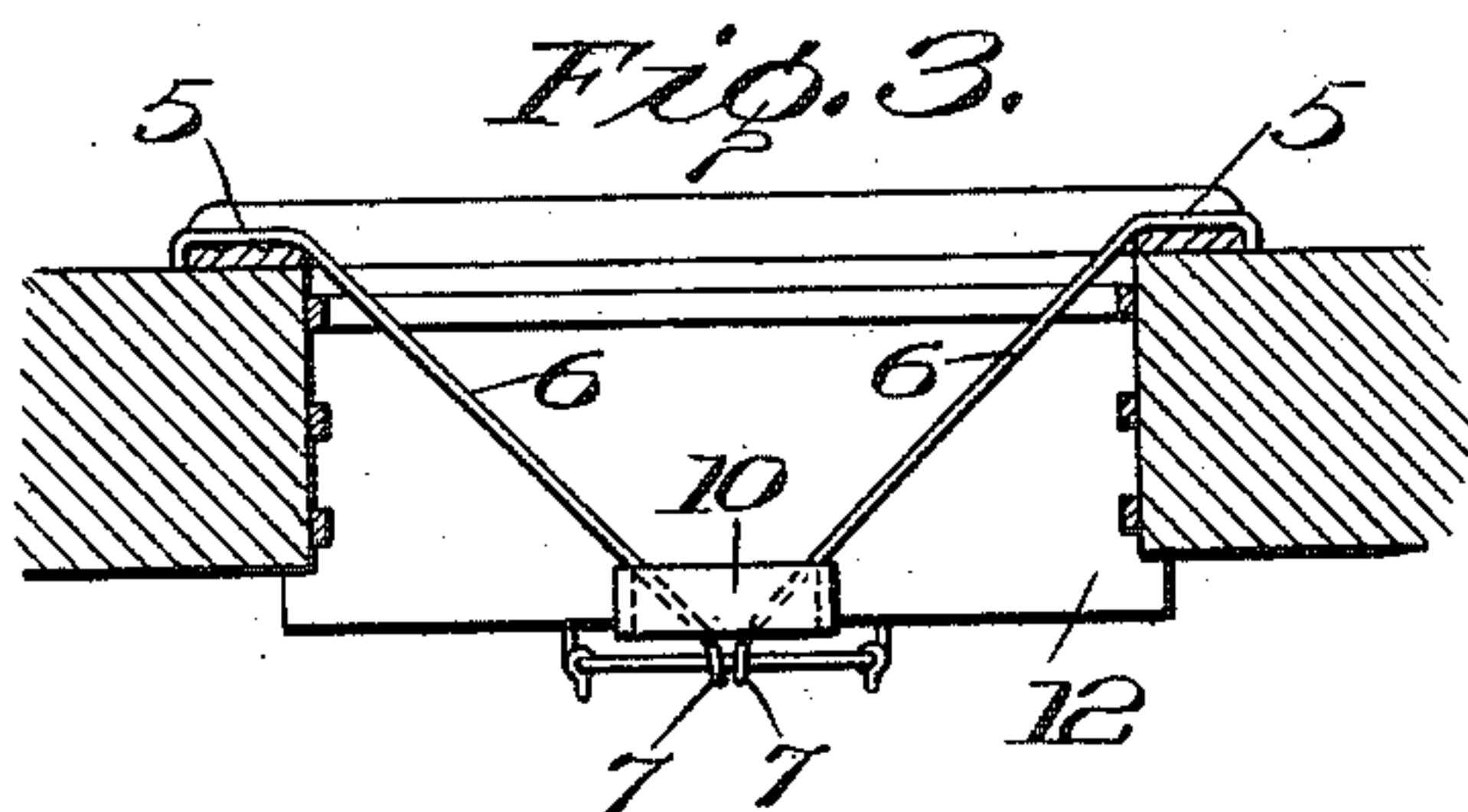
By *Victor J. Evans*
Attorney

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2 SHEETS—SHEET 2.



Witnesses
Allan H. Cross.
R. M. Smith.

Inventor
T. E. Laroy
By *Victor J. Evans*
Attorney.

UNITED STATES PATENT OFFICE.

THOMAS E. LAROE, OF MIDDLESBORO, KENTUCKY, ASSIGNOR TO SOUTHERN MANUFACTURING COMPANY, A CORPORATION OF KENTUCKY.

FIRE-ESCAPE.

994,760.

Specification of Letters Patent. Patented June 13, 1911.

Application filed July 11, 1910. Serial No. 571,531.

To all whom it may concern:

Be it known that I, THOMAS E. LAROE, a citizen of the United States, residing at Middlesboro, in the county of Bell and State of Kentucky, have invented new and useful Improvements in Fire-Escapes, of which the following is a specification.

This invention relates to fire escapes, the object of the invention being to provide a simple and practical form of portable fire escape which may be readily carried about from place to place or stored in a room and easily suspended from a window or doorway to enable the occupants of a building to descend safely to the ground.

With the above general object in view, the invention consists in the novel construction, combination and arrangement of parts as hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a front elevation of the fire escape showing the same in position in a window opening. Fig. 2 is a vertical transverse section of the same. Fig. 3 is a horizontal section through the window opening, showing the relation of the ladder suspending devices thereto. Fig. 4 is a detail section illustrating the grapple by which the ladder is suspended. Fig. 5 is a side elevation of the ladder in its folded condition. Fig. 6 is a detail perspective view of one of the ladder sections.

The fire escape contemplated in this invention is in the nature of a ladder which is made up of any desired number of relatively slidable sections one of which is illustrated in detail in Fig. 6. Each ladder section, as seen in Fig. 6, comprises a horizontal cross bar or tread portion 1 forming the step or part upon which the foot is adapted to be placed in ascending or descending the ladder. Each section also comprises upwardly extending sides 2 which are substantially at right angles to the cross bar or tread portion 1 and parallel to each other. Each of said sides 2 is bent to form a guide loop or eye 3 and is then bent and terminates in an inwardly extending offsetting arm 4, which is adapted to bear against the face of the building so as to properly offset the ladder therefrom and give ample room for the toes of the person ascending and descending the ladder.

Any desired number of ladder sections of

the shape described and illustrated in Fig. 6 may be combined as illustrated in Figs. 1, 2 and 5, the sides 2 of one section passing through a depth to slide within the guides or loops 3 of the adjoining section, the result being that the ladder may be extended to its full length as illustrated in Figs. 1 and 2 or folded compactly as illustrated in Fig. 5.

In order to sustain the ladder above described from a window or other opening in the wall of the building, I provide a grapple illustrated in detail in Figs. 3 and 4 the grapple comprising a pair of hooks 5 adapted to be placed in engagement with the window frame as seen in Fig. 3 each of said hooks having an elongated shank or body 6, the shanks or bodies of the two hooks being normally parallel or suspended as shown in Fig. 4. The shanks 6 are provided at their lower extremities with eyes or loops 7 through which the rung or cross bar 8 of the upper ladder section passes, said upper section being also provided with inwardly extending offsetting arms 9 corresponding with the offsetting arms 4 of the lower sections as hereinabove described.

Mounted slidably on the shanks 6 is a spreader 10 having V-shaped apertures 11 therethrough through which the shanks 6 of the hooks pass, so that when the said spreader is moved downward toward the cross bar 8 the hooks 5 spread apart and are forced into and maintained in engagement with the window frame as seen in Fig. 3. When in position, the spreader 10 will ordinarily rest on the window while engaged at 12 as shown in Figs. 1 and 2.

The fire escape illustrated hereinabove is exceedingly simple and practical in its construction and the sections thereof may be composed of stout wire or rods of any suitable gage. The ladder is adapted to be folded compactly as shown in Fig. 5 and stored in a room or corridor adjacent to a window opening and will readily extend itself in proper position for use by simply fastening the grapple to the window frame and dropping the remainder of the ladder outward through the window opening. The offsetting arms bear against the building to allow ample room for the toes of the person ascending or descending.

I claim:—

1. The combination with a ladder; of a grapple including a pair of arms offset at

one end portion and provided with eyes to loosely receive the upper round of said ladder, the opposite end portion of said arms terminating in hooks, for the purpose described.

2. The combination with a ladder, and a grapple therefor including a pair of arms pivotally connected at one end to the upper round of the ladder, and terminating at their free ends in hooks; of a block having spaced openings for the loose reception of said arms, said openings being arranged in

juxtaposition and having inclined sides forming bearing surfaces for said arms when the hooked ends of the latter are directed in opposite directions to engage a support.

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

THOMAS E. LAROY.

Witnesses:

T. T. HALE,
T. P. CLINE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
