

(No Model.)

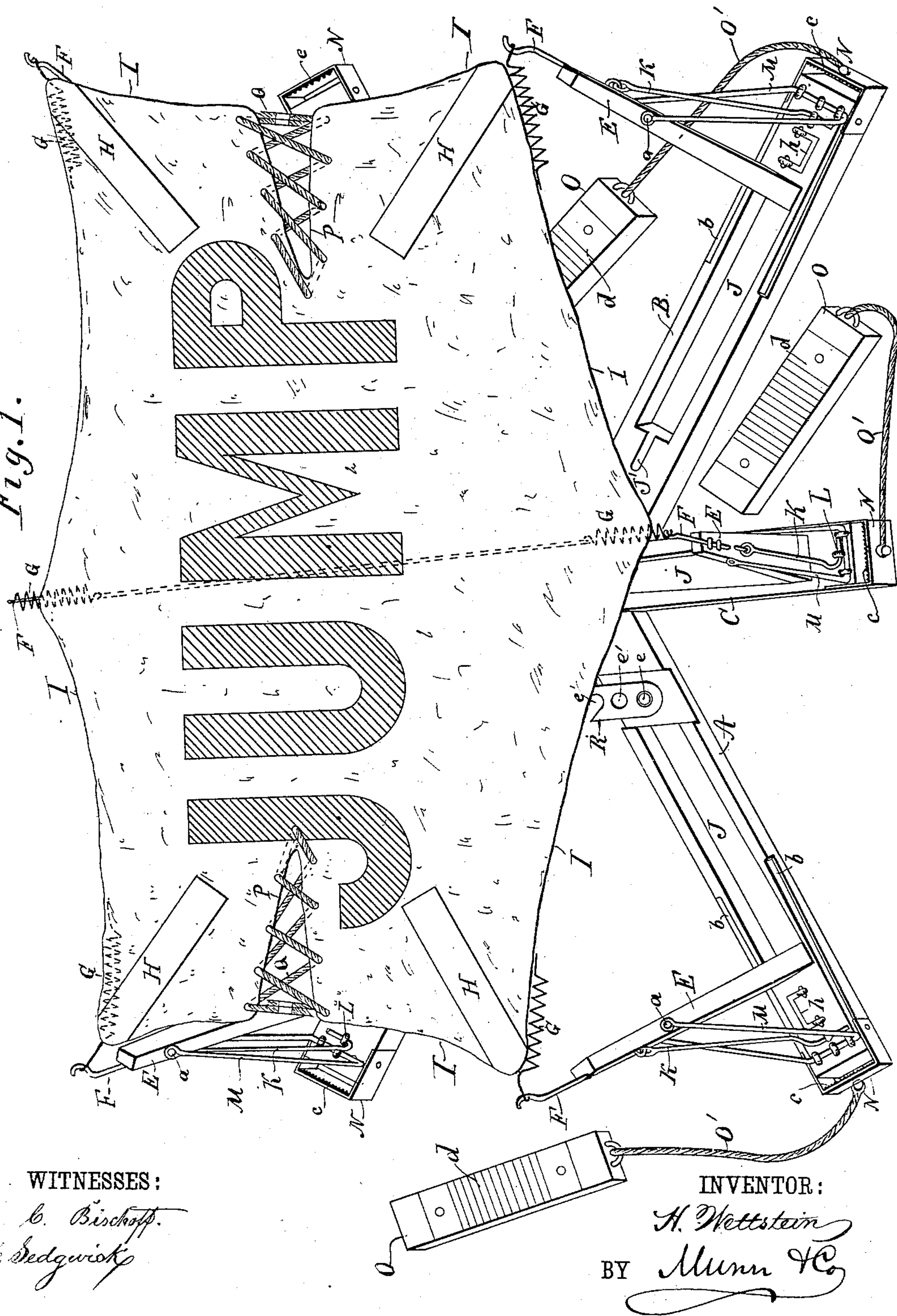
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H. WETTSTEIN.
PORTABLE FIRE ESCAPE.

No. 312,415.

Patented Feb. 17, 1885.

Fig. 1.



WITNESSES:

C. Bischoff.
C. Sedgwick

INVENTOR:

H. Wettstein
BY Munn & Co

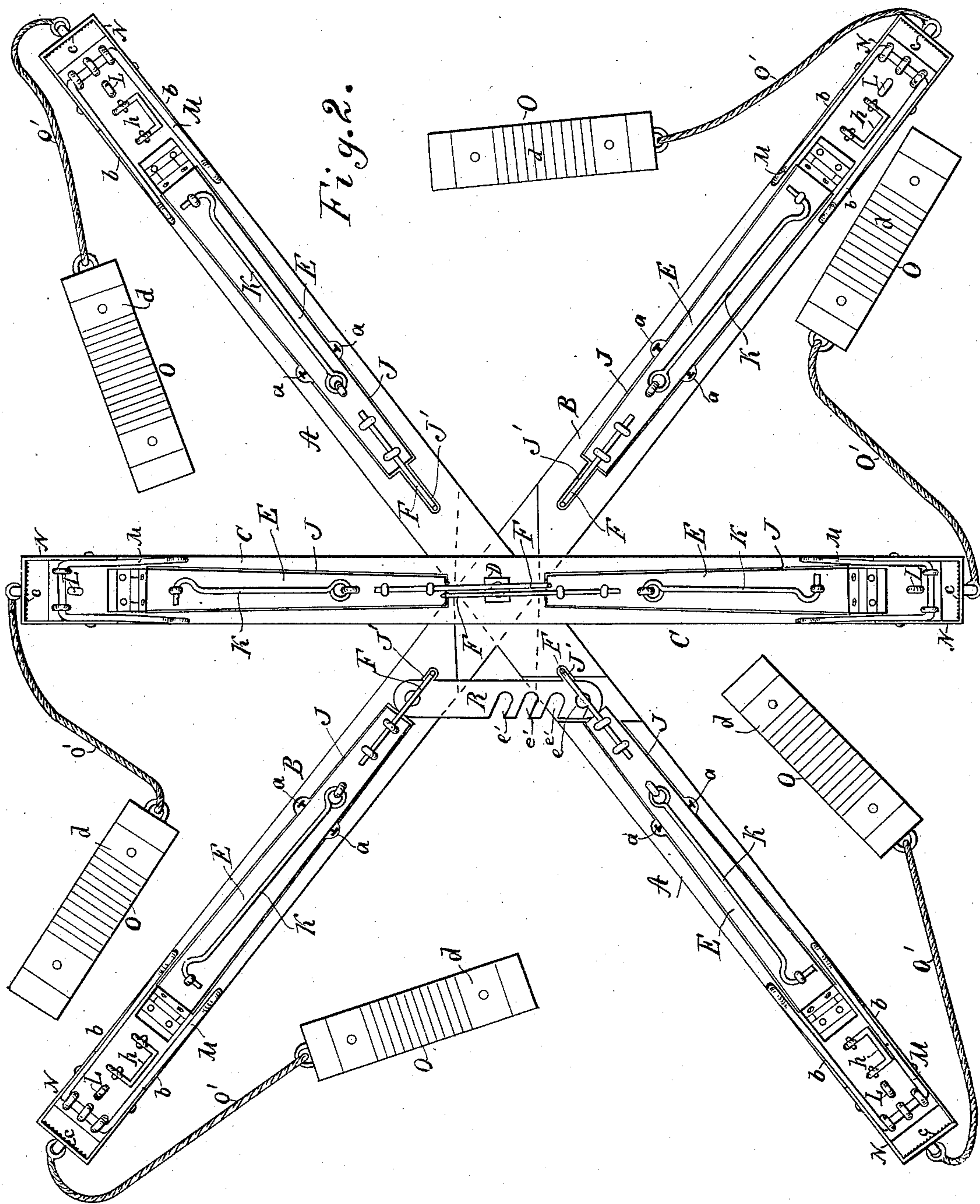
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ATTORNEYS.

UNITED STATES PATENT OFFICE.

HERMANN WETTSTEIN, OF HARVARD, ILLINOIS.

PORTABLE FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 312,415, dated February 17, 1885.

Application filed June 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, HERMANN WETTSTEIN, of Harvard, in the county of McHenry and State of Illinois, have invented a new and Improved Portable Fire-Escape, of which the following is a full, clear, and exact description.

The object of my invention is to provide a practical fire-escape for saving persons from burning buildings by jumping upon the fire-escape, the same being made of such size, strength, and elasticity, and the upper fabric or net-work being held at such height from the ground that persons may jump upon the fabric or net-work from the highest buildings without injury.

Another object of the invention is to adapt the fire-escape to be folded so as to occupy small space when not in use, and to so construct it that it can be quickly and easily put in position for use.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my fire-escape as it appears when set up for use upon a pavement or upon level ground, the legs not being put in place; and Fig. 2 is a plan view of the frame of the fire-escape arranged for use, the fabric or net-work being removed and the standards and braces folded down upon the cross-bars of which the frame is composed.

The frame of my new fire-escape is composed of the bars A B C, centrally held one upon the other by the bolt D. These bars may be halved together, if desired, or they may be placed full thickness one above or across the other and permanently bolted together, so that they may be folded to parallel lines when not in use, or turned to radial or crossed position, without removing the bolt or pin D or the nut thereof.

Near the ends of the bars A B C are hinged the uprights E. These are provided at their free ends each with a hook, F, into which the springs G or elastics H of the net-work or fabric I are to be hooked when the fire-escape is arranged for use. The upper surfaces of the bars A B C are recessed, as shown at J J', to receive the hinged uprights E and hooks F

when the uprights are folded down upon the bars, as shown in Fig. 2; and the uprights E are each provided with a hook, K, adapted to be hooked into an eye, L, driven into the upper surfaces of the bars A B C for holding and bracing the uprights E in upright position; and the said uprights E are also each provided with the headed studs *a a*, with which the tie-rods or braces M, hinged to the bars A B C are adapted to engage for holding the uprights E in upright position, as shown clearly in Fig. 1, and the bars A B C are cut away at their edges, as shown at *b b*, to receive the arms of the tie-rods or braces M when they are folded down upon the said bars A B C.

At the outer ends of the bars A B C are pivoted the U-shaped plates or holding-irons N, for receiving and holding the legs O, which will be used only when the ground or pavement where the fire-escape is to be placed is uneven. The holding-irons N are formed with the teeth *c*, and the said legs O have the serrated plate *d* secured to them, and the plates N, being pivoted, act as cramp or grip irons to the legs O, serving, when the legs are put in place, to automatically grasp them against the ends of the bars A B C, and thus hold them and cause them to support the fire-escape at any desired height from the ground or pavement without other fastenings. The legs O are by preference tied to the frame of the fire-escape by the cords O', so that they will always be at hand when needed for use. The fabric or net-work I is cut at its ends, as shown at P P, and the openings thus formed are laced with the cords Q Q, so that by loosening the said lacing-cords a person may be easily removed from the fabric or net-work I.

Although I have shown at the corners of the net-work or fabric I both the springs G and elastics H, it is obvious that either could be used without the other, if desired.

For holding the bars A B crossed at the proper angle for drawing the net-work or fabric I taut, I provide the bar B with the holding-plate R, and the bar A with the stud or pin *e*, over which one or the other of the holes or slots *e'* made in the plate R will be placed, so that the plate R will act both as a tie-plate and brace for holding the bars A B in the

proper relative position to each other when the device is arranged for use, and also for holding taut the fabric I.

It is designed that fire-department shall be provided with my new fire-escape, and the fabric I being removed all of the parts can be folded together so that the whole fire-escape will occupy small space, making it practicable to carry the escape to all fires, so that it can be set up and used, if necessary, to save persons from the burning building.

To set the fire-escape up for use it is only necessary to swing the bars A B C to crossed position, apply the plate R to the pin *e*, swing upward and outward the uprights E and brace them, and then place the fabric or net-work I in position, hitching the springs or elastics in the hooks F. This done, if the ground or pavement is level the fire-escape will be lifted by the handles *h h* and placed beneath the window, from which the endangered persons may leap upon the fabric or net-work I of the fire-escape, which, being held by springs or elastics, and held above the ground, will stop the fall of the person without injurious shock.

A person having leaped upon the fabric or net-work I, the lacing-cords Q will be loosened and the person removed from the fabric, and then the lacings will be drawn up again, thus putting the fire-escape in readiness for another person to leap upon it.

In case the ground or pavement where the fire-escape is to be placed is uneven, one, two, or more of the legs O will be put in place to hold up one end, side, or corner of the fire-escape, to hold the fire-escape level, as circumstances require.

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

1. The fire-escape herein shown and described, composed of a folding frame having hinged uprights E, in combination with the fabric or net-work I, attached to the uprights, substantially as set forth.

2. The bars A B C, bolted together in the center one upon the other, in combination with a holding or brace plate, R, arranged to hold the bars in the proper crossed position, substantially as set forth.

3. The uprights E, hinged to the bars A B C, in combination with the braces K, substantially as set forth.

4. The braces M, hinged to the bars A B C, in combination with the hinged uprights E, substantially as and for the purposes set forth.

5. The braces M, hinged to the bars A B C, in combination with the hinged uprights E, provided with the braces K, substantially as described.

6. The hinged uprights E, provided with the hooks F, substantially as and for the purposes set forth.

7. The bars constituting the frame of the fire-escape, having the recesses J formed in them to receive the hinged uprights E, substantially as and for the purposes set forth.

8. The bars constituting the frame of the fire-escape, recessed at *b* to receive the hinged braces M, substantially as and for the purposes set forth.

9. The bars constituting the frame of the fire-escape, formed with the recesses J J' to receive the uprights E and hooks F, substantially as set forth.

10. The bars constituting the frame of the fire-escape, provided with the grip-plates N, in combination with the legs O, substantially as and for the purposes set forth.

11. The grip-plates N, provided with the teeth *c*, substantially as and for the purposes set forth.

12. The grip-plates N, provided with the teeth *c*, in combination with the legs O, provided with the serrated plates *d*, substantially as and for the purposes set forth.

13. The fabric or net-work I, provided with springs or elastics G H, in combination with the uprights E, having hooks F, substantially as and for the purposes set forth.

14. The fabric or net-work I, slotted, as P, and provided with the lacing-cords Q, substantially as and for the purposes set forth.

HERMANN WETTSTEIN.

Witnesses:

JOHN FORBY,
HENRY L. FREDERICK.