M. C. S. FLANIGAN.

Fire-Escape.

No. 208,729. Patented Oct. 8, 1878.

Fig. 2.

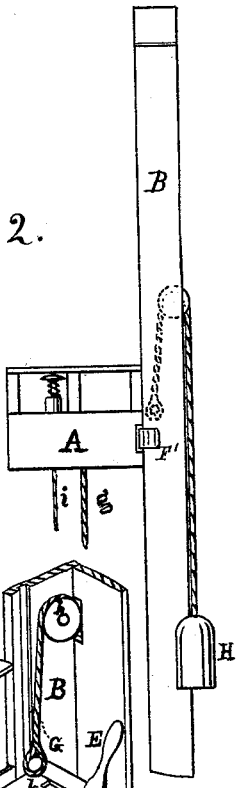


Fig. 1.

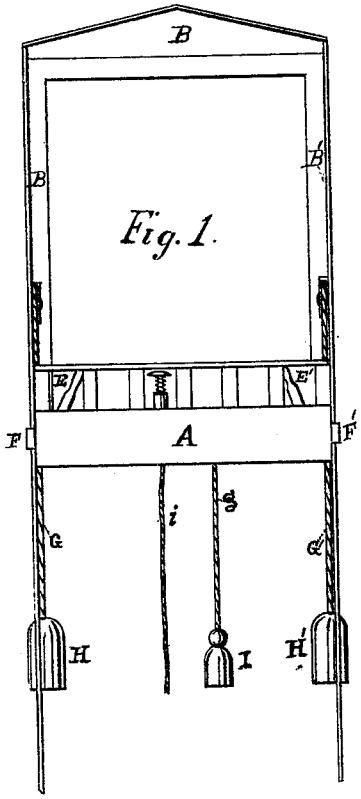
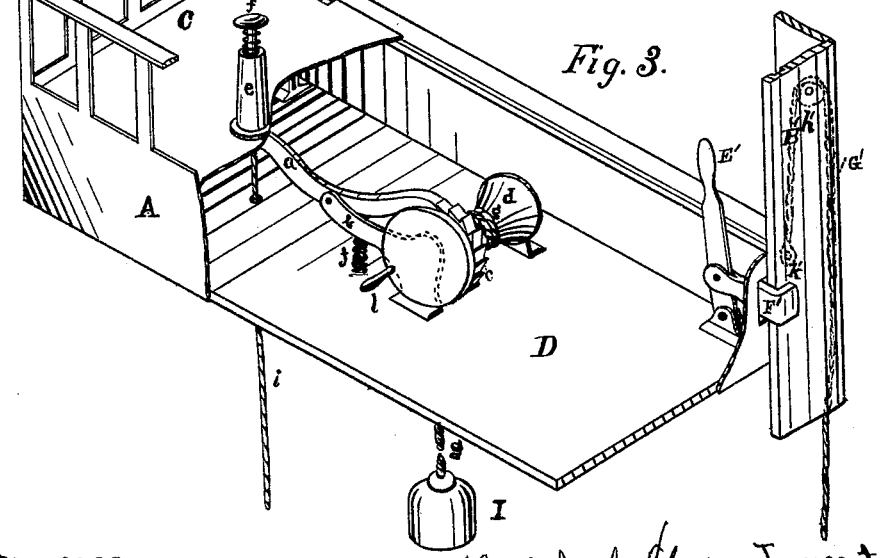


Fig. 3.



Witnesses:

Charles H. Moore.

Oscar Baker

Mary C. Smith Flanigan, Inventor,

By

Chas. O'Tracy & Co., Attorneys

UNITED STATES PATENT OFFICE.

MARY C. SMITH FLANIGAN, OF CLEVELAND, OHIO, ASSIGNOR OF ONE-THIRD HER RIGHT TO JOHN W. EASTERMAN, OF SAME PLACE.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **208,729**, dated October 8, 1878; application filed February 11, 1878.

To all whom it may concern:

Be it known that I, MARY C. SMITH FLANIGAN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Fire-Escape; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to certain improvements in fire-escapes, and is designed to furnish the means of escaping from a building in which other means of egress have been cut off. The particular improvement is in the automatically working device, which, being attached to the outer wall of a building, is convenient at all times and ready for service, the means of egress furnished by a rope ladder or other contrivance in common use, being objectionable for many reasons, prominent among which is the dizziness felt by many persons when called upon to descend by this means. For these reasons many fire-escapes are inoperative.

In my improved fire-escape I have endeavored to overcome many of these objections by providing an escape in the form of an inclosed stage or platform, which, upon being occupied by those who seek to escape, will descend in consequence of the additional weight placed upon the platform, thus overcoming the counterpoise-weights which are provided for the purpose of raising the platform to the highest portion of the building. As this requires no voluntary effort of persons who may be using it, it may be operated by a child.

In the drawings, Figure 1 is an elevation, showing the escape as it would appear suspended in front of a window. Fig. 2 is a side elevation of same. Fig. 3 is a perspective view, with part of the side and end of the stage broken away, showing the interior mechanism.

A, Fig. 1, is the body or floor of stage. B B′ are rails or guides placed upon the outer walls of a building on either side of the windows or doors over which the escape is intended to pass. G G′ are wire ropes attached to the stage or platform at one end, and by their opposite ends to the weights H H′. F F′ are brakes engaging the guides B B′, operated by the levers E E′ for the purpose of checking the too rapid descent of the platform. *g* is a wire rope, to which is attached a weight, I. *i* is a wire or cord.

In Fig. 3, A is the stage; B B′, the grooved uprights or guides before mentioned; C, the floor of stage or platform. D is the bottom of the stage, between which and the floor C is located the mechanism for operating the escape.

E E′ are the levers passing up through slots in the platform C, to be conveniently within reach for applying the brakes or friction-clutches F′, which grasp the uprights B firmly and retard or check the descent of the stage.

G G′ are wire ropes attached to the stage at *k k′*, and, passing over pulleys *h h′*, are attached at their opposite ends to the counterpoise-weights, which are inclosed within boxes on the inner side of walls.

a is a lever attached to the arm *b*, and held down upon the ratchet *c* by spiral spring *j*. *d* is a drum, around which is wound the wire rope *g* by means of the crank *l*, which is operated by hand through a suitable covered opening in the platform. *i* is a wire passing down the front of the building, and attached to one extremity of the lever *a*, by which means it may be disengaged from the ratchet *c*, allowing the rope *g* to be unwound from the drum by the weight I, when, in case the stage is at the highest part of a building, it may be drawn down, if desired, to a lower window or other point of egress.

f is a plunger within the upright hollow guide *e*, and raised by a spiral spring. This plunger *f* may be depressed upon the outer arm of the lever *a*, which will, in like manner with the wire *i*, disengage it from the ratchet *c* to allow the stage to be lowered by the rope *g* in event of the weight upon it being insufficient to overcome the resistance of the weights H H′.

J is a railing around the stage to prevent the occupants from falling.

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

1. In a fire-escape, the combination of the

stage A, the cords G G′, pulleys *h h′*, weights H H′, levers E E′, and clutches F F′ with the lever *a*, arm *b*, ratchet *c*, and drum *d*, as and for the purposes set forth and described.

2. The levers E E′ and clutches or brakes F F′, as and for the purposes described and shown.

3. The lever *a*, arm *b*, ratchet *c*, and drum *d*, in combination with the wire rope *g*, weight I, and mechanism for operating the lever, substantially as and for the purpose set forth.

This specification signed and witnessed this 11th day of October, 1877.

MARY C. SMITH FLANIGAN.

Witnesses:
O. G. GETZEN DANNER,
OSCAR BALZER.