

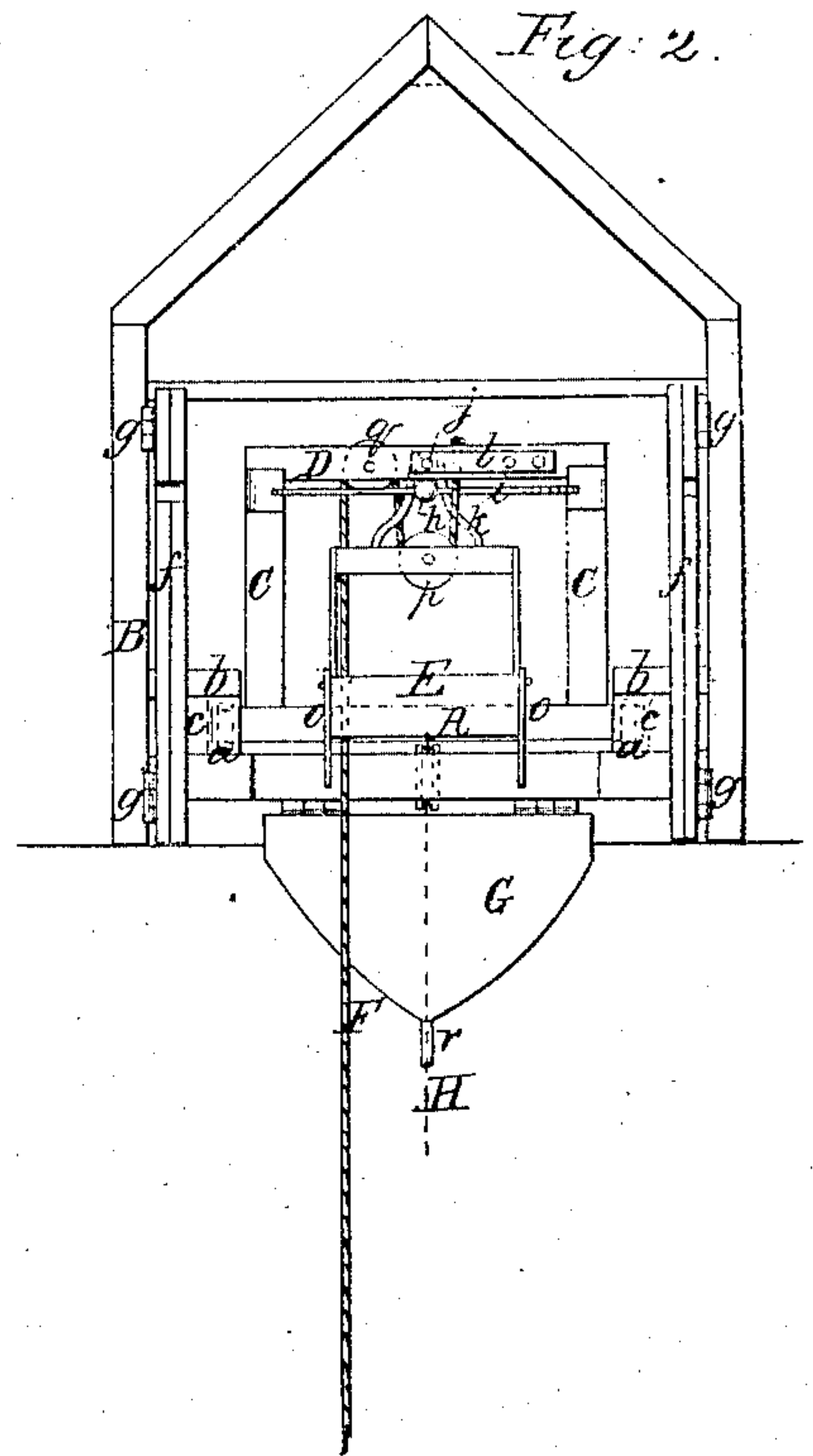
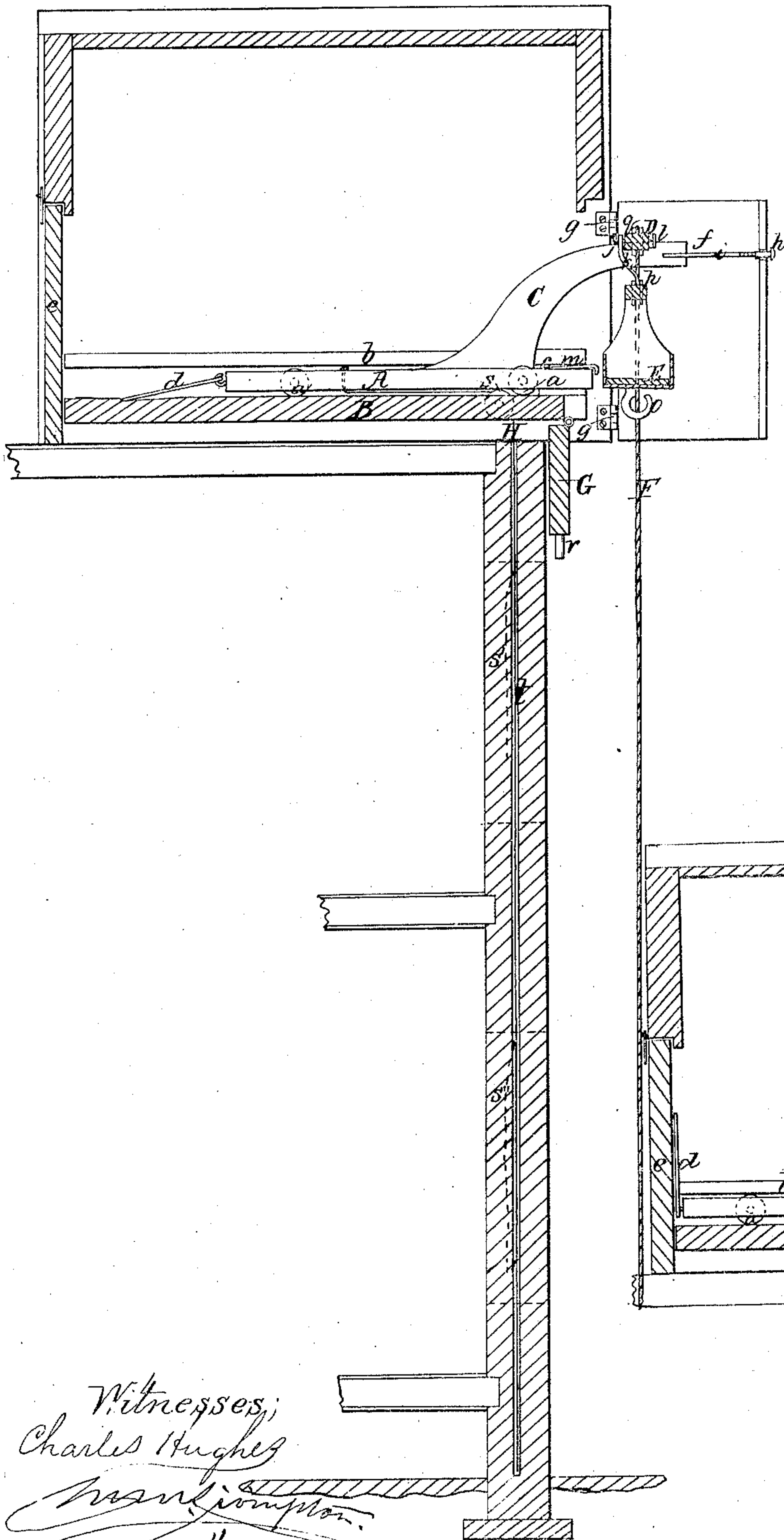
*H. Powelson.*

*Fire Escape.*

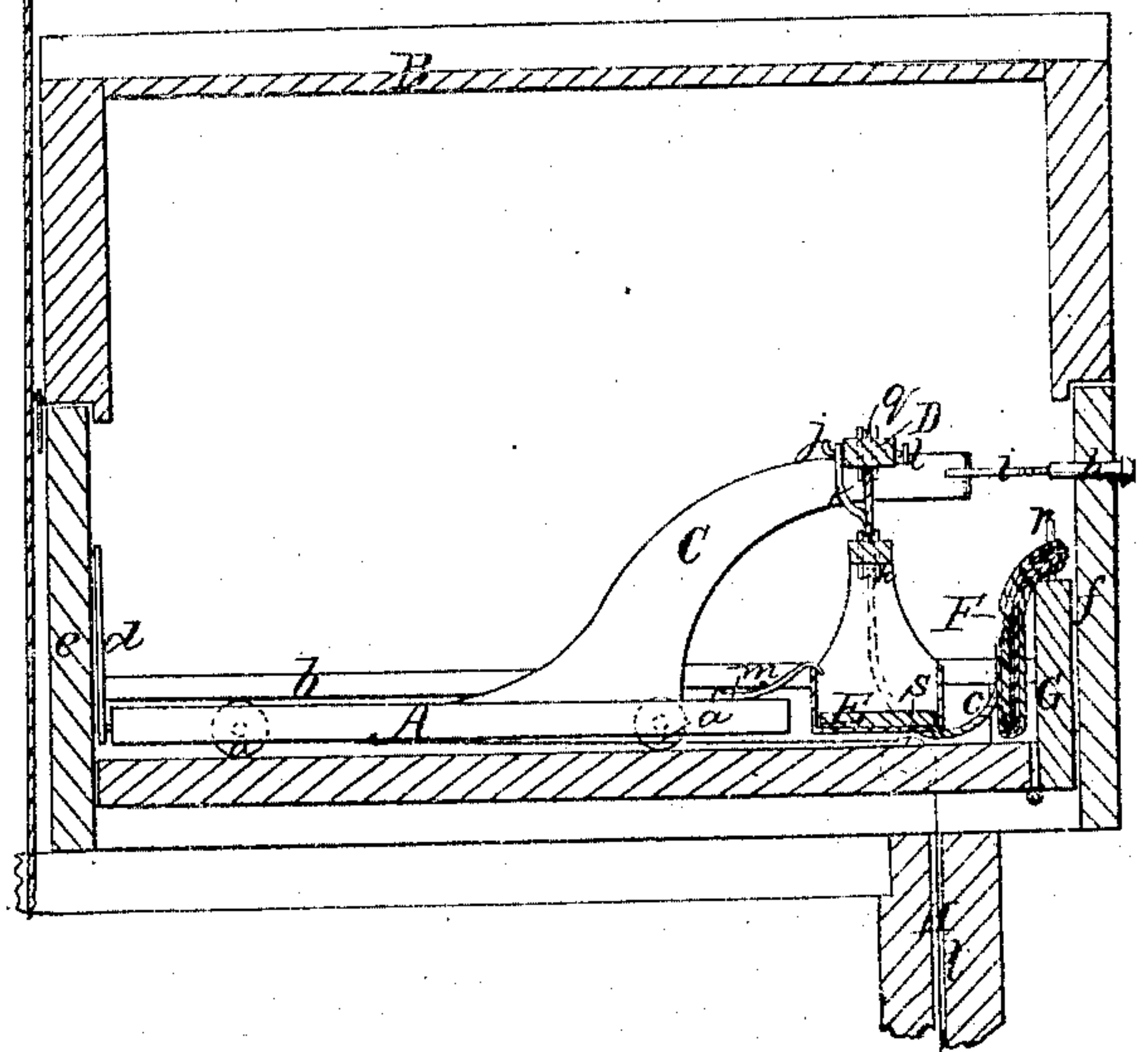
*No 28,501.*

*Fig: 1.*

*Patented May 29. 1860.*



*Fig: 3.*



*Witnesses;*  
*Charles Hughes*  
*Wm. L. Thompson*

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*Henry Powelson*



# UNITED STATES PATENT OFFICE.

HENRY POWELSON, OF NEW BRUNSWICK, NEW JERSEY.

## FIRE-ESCAPE.

Specification of Letters Patent No. 28,501, dated May 29, 1860.

*To all whom it may concern:*

Be it known that I, HENRY POWELSON, of New Brunswick, in the county of Middlesex and State of New Jersey, have invented a new and Improved Fire-Escape; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 represents a longitudinal vertical section of my invention, ready to be used. Fig. 2 is a front elevation of the same. Fig. 3 a longitudinal vertical section of the same when closed up.

Similar letters of reference in the three figures indicate corresponding parts.

This invention consists in arranging on the top of a building or in one of the upper stories, a sliding platform in combination with a rising and falling car, and with suitable chains or ropes in such a manner that by pulling one of the chains, the platform, together with the car is brought to the edge of the building, and the rope which controls the motion of the car is dropped, where it can be reached from any of the windows situated in the same vertical plane with the car, or from the street for the purpose of enabling persons to escape from either story of a building, if every other way of egress is cut off by fire.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation with reference to the drawings.

A platform A, made to slide backward and forward on rollers or wheels *a*, is inclosed in a casing B, on the top of a house, and close up to its front or rear edge. The platform is guided in its motion by brackets *b* extending from one end of the casing to the other and arranged on the sides of the same, and the extent of the motion of the platform is limited by stops *c* near to the front end of the casing, and if the front wheels of the platform are in contact with said stops, a brace *d* may be turned down so as to catch into a notch in the bottom of the casing whereby the platform is firmly secured in its place.

The casing B, which may be constructed of wood or of any other suitable material, is furnished with a door *e* in the rear, to admit of introducing the platform, and it opens in front by means of two doors or shutters *f*,

which swing on hinges *g*. When these doors are closed, they are retained in their position by the head of a bolt *h*, which is attached to an arm *i*, extending from standards C, that rise from the upper surface of the platform A, as clearly shown in Fig. 3, and if the platform is pushed forward, the arm *i*, by striking the inner side of the shutters *f*, throws them open as shown in Fig. 1.

The standards C, are connected on the top by a cross bar D, which has a hook *j*, attached to it from which the car or basket E, is suspended by means of a loop *k*. The hook *j*, extends through the entire width of the cross-bar D, and its outer end is secured to a spring *l*, so that it retains the loop *k*, firmly, and that it releases the same as soon as the car is lifted up. The car or basket is constructed of wood, or sheet metal sufficiently large and strong to admit several persons at a time, or to admit of introducing into the same such articles of furniture which it may be desirable to save in case of fire, or to bring up from the street, and a spring hook *m*, attached to the front end of the platform A, serves to retain the same, and to prevent its swinging to-and-fro when the apparatus is not in use. Hooks *o* which are pivoted to the sides of the car, serve to fasten the same to the several windows below the casing, for the purpose of enabling persons to enter the car with more facility, or keep the same in the proper position for articles of furniture or merchandise to be saved by its agency.

A rope or chain F, which is attached to the cross-bar D, passes under a roller *p* in the top bar of the car, and it extends over a roller *q* in the cross bar D, and when the apparatus is ready for use, said rope hangs down in front of the building as clearly shown in Fig. 1, in the drawing, and its length must be such that its lower end can conveniently be reached from the street. When the apparatus is not in use, this rope is coiled up and suspended from a pin *r*, on the top of a flap G, that is hinged to the front end of the platform A, as clearly shown in Fig. 2 in the drawing.

A rope or chain H, which is secured to the rear end of the platform A, and which passes over a roller *s*, in the bottom of the casing B, hangs down through a tubular recess *t*, in the wall of the building, and said rope is furnished with branch *s'*, *s''*, etc., which pass out to the several stories of the building, so



that the apparatus can be operated at pleasure from either story.

The operation is as follows: When the apparatus is not used, the platform A is pushed back, into the casing B, and the rope F is coiled up and suspended from the pin *r*, on the flap G as above described. The shutters *f*, are closed and the whole is in a position as shown in Fig. 3. In case of a fire, or whenever it is desired to bring the apparatus in use, by pulling the rope H, the platform A, is pushed forward and by the action of the arm *i* extending from the standards C the shutters are thrown open, and at the same time the flap G, is turned down, and the rope F, uncoils by its own gravity as shown in Fig. 1, and it hangs down before the windows of the house so that it can be reached from either one of the different stories. By pulling the rope, the loop *k*, on the top of the car is released from the spring hook *i* and the car can now be lowered and secured by means of the hooks *o*, on its sides to one of the windows so that persons or articles to be saved can conveniently enter the same or be brought in it and lowered either by the persons in the car or by persons in the street having control of the rope F. An apparatus of this description, when properly arranged on the top of a building, will provide the means of escape for the inmates of the house under all circumstances as long as said inmates are enabled to reach the window from which the apparatus can be put in operation; and as soon as the rope F, has been released, so that its end can be reached by persons in the street, the firemen, or other persons engaged in saving persons or articles, can reach the different stories and assist in re-

moving such persons which are unable to reach the car from infirmity or other causes, or articles too heavy to be removed by the inmates of the house. The whole apparatus can be manufactured at a trifling expense, and as it is intended to be put up on the top of the building, it will be entirely out of the way when not needed, and at the same time by means of the rope H, it is so arranged that it can be reached and operated from each and every story of the building.

It will be noticed that my apparatus can also be used with advantage to bring up such articles which are too heavy or too bulky to be carried up the narrow and winding stairs in many of our large tenement houses, and to pass them in by the windows of the different stories.

What I claim as new and desire to secure by Letters Patent is—

1. The arrangement on the top, or in one of the upper stories of a building, of the sliding platform A, in combination with the rising and falling car or basket E, constructed and operating substantially as, and for the purposes described.

2. The combination with the platform A, and basket E, of the hinged flap G, substantially as specified for the purpose of dropping the rope F, as the platform advances.

3. The arrangement of the rope H, with branches *s'*, *s''*, etc., in combination with the sliding platform A, substantially as set forth for the purpose of enabling the inmates of the house to control the apparatus from the several stories of the building.

HENRY POWELSON.

Witnesses:

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