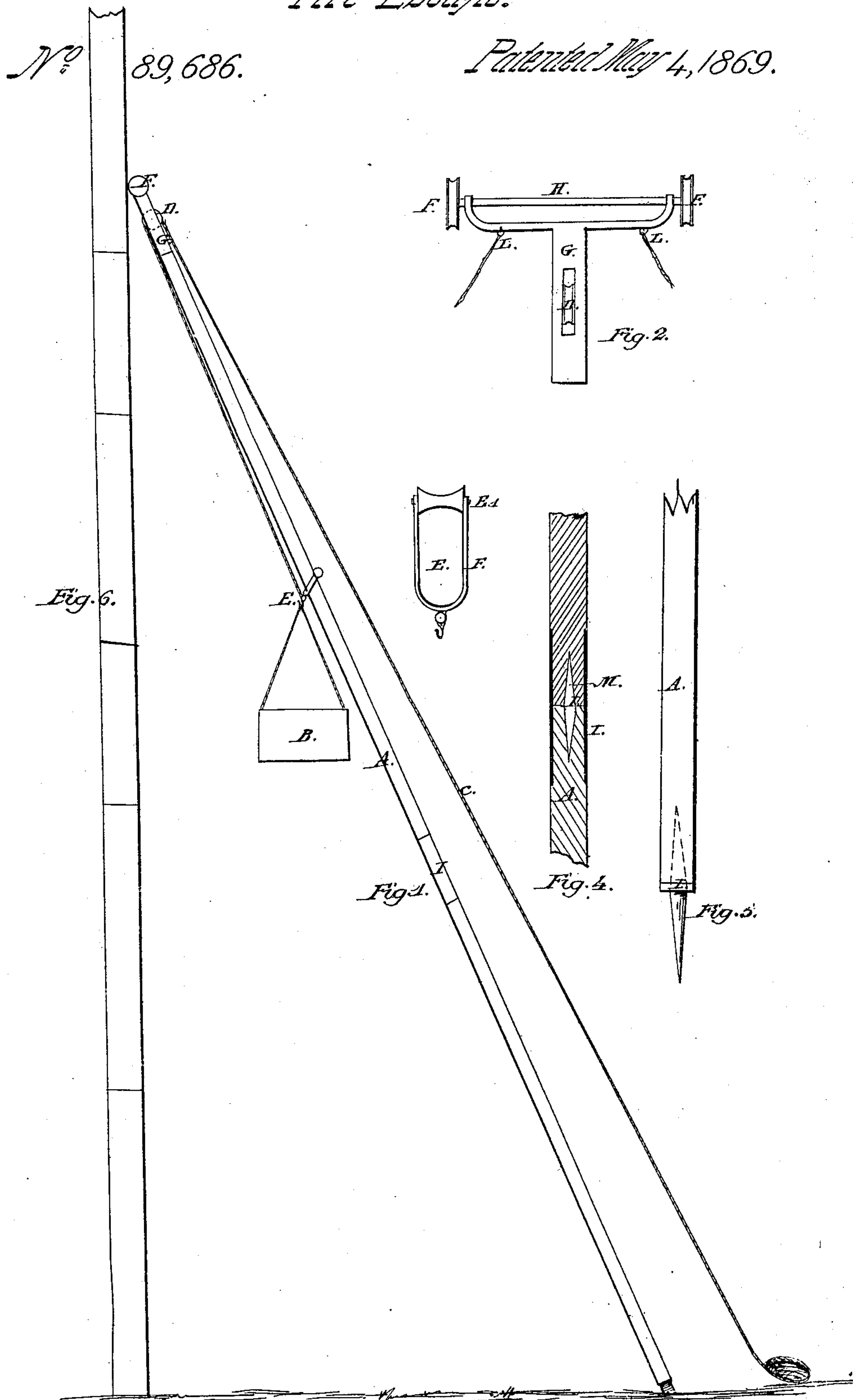


E. P. Richardson.

Fire Escape.

Nº 89,686.

Patented May 4, 1869.



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EDWIN P. RICHARDSON, OF MANCHESTER, NEW HAMPSHIRE.

Letters Patent No. 89,686, dated May 4, 1869.

IMPROVED FIRE-ESCAPE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWIN P. RICHARDSON, of Manchester, in the county of Hillsborough, and State of New Hampshire, have invented a new and "Improved Fire-Escape;" and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a perspective view of this invention ready for use

Figure 2 is a view of the staff-head.

Figure 3 is the sliding frame.

Figures 4 and 5, sections of the staff.

Figure 6 is a sectional view of a building.

Similar letters of reference indicate like parts.

This invention relates to a portable fire-escape, built in such a manner that its several parts may be disconnected for packing in a small compass, readjusted in a short space of time, to permit its being raised against a building in case of fire, and allow the escape of any persons from the windows, or tops of buildings without risk of injury.

The invention consists, first, of a staff, or a series, jointed together, of sufficient strength to support the weight of one or more persons in their passage down in the basket, by aid of the sliding frame; secondly, in the slotted staff-head, and the pulleys used to assist in raising the staff; thirdly, in the sliding frame and spool; fourthly, in the basket, and the rope used to raise and lower it, all these devices acting in combination with the guy-ropes, to secure the safe passage down, of persons confined within a building, when the ordinary modes of passage are cut off by fire, or otherwise

Fig. 1. A is the staff in one or more sections, which is shortened or lengthened as occasion requires.

B represents the basket, or cage, which is raised or lowered by means of the rope C and sliding frame E.

C is the hoist-rope, passed through the slot of the staff-head, and over the pulley D, and its end secured to the sides of the sliding frame E.

D is the rope-pulley, secured in the slot of the staff-head by its spindle.

E is the sliding frame which encircles the staff, is attached to the basket, and by means of a concave spool, is easily slid up and down on the staff.

F F are two grooved pulleys secured to the spindle H, which turn freely by contact with the building, acting as rollers to assist in raising the staff.

G is the staff-head, made of metal, and slotted to receive the rope-pulley D, with two arms supporting the spindle of pulleys F F.

H is the spindle on which the pulleys F F turn.

I is the socket, which, with the aid of the spike J, secures the sections of the staff in opposition with each other.

J is the spike, which also serves to prevent the bottom of the staff from slipping.

L L are rings, to which the guy-ropes are secured at their upper end.

M is a pin inserted to keep in place the spike J.

Similar letters of reference indicate like parts.

The prime object of this invention is to furnish fire-departments with a portable fire-escape, which shall be more efficient in its operation, simpler in its construction, and cheaper in cost than those heretofore in use; and these points, my experience as one of the engineers of this city, demonstrate to me as desirable, and which practical experiment proves are attained in the above combination of devices.

The mode of operating this invention is as follows:

One or more sections of staff are joined together; the hoist-rope is passed over the pulley D, and attached to the sides of the sliding frame; the basket is then secured in position, the staff-head is placed against the building, and grooved pulleys act as rollers to assist in raising the staff to the desired height; the guy-ropes on each side are held by persons, or secured, and the staff is then ready to raise the basket, or lower it to any desired position, where a person from a window may step in and be landed safely.

Having thus described my invention,

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

The combination of the sectional staff A, staff-head G, pulleys D and F F, with the sliding frame E, and basket B, when constructed as described, and for the purpose set forth.

The above specification of my invention signed by me, this 24th day of February, A D. 1869.

E. P. RICHARDSON.

Witnesses:

J. E. WILSON,

O. L. HARMON.