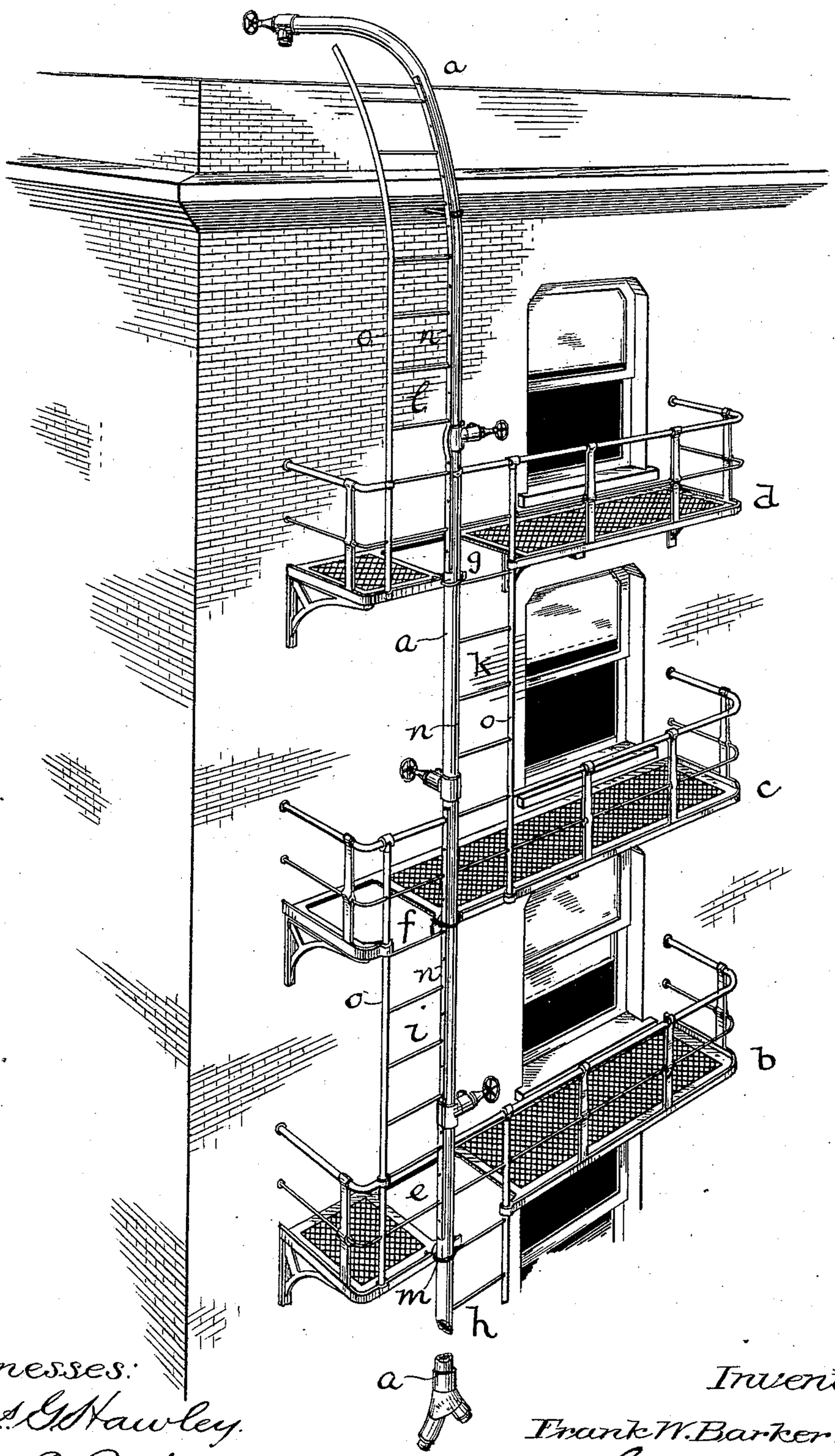
(No Model.)

F. W. BARKER.

STAND PIPE AND FIRE ESCAPE.

No. 407,322. Patented July 23, 1889.



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UNITED STATES PATENT OFFICE.

FRANK W. BARKER, OF CHICAGO, ILLINOIS.

STAND-PIPE AND FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 407,322, dated July 23, 1889.

Application filed March 7, 1889. Serial No. 302,225. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. BARKER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Combination Stand-Pipe and Fire-Escape, (Case 1,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to permanent fire-escapes such as have been heretofore used in connection with stand-pipes. These fire-escapes have been secured vertically to the side of the building, a landing or balcony with a man-hole being provided at each story convenient to a window or other opening.

The ladder forming the fire-escape proper has been continuous and the openings or man-holes in the landings have consequently been arranged one directly above the other. Those unaccustomed to such exposure have frequently become dizzy when attempting to descend on account of looking down through the man-holes, forming, as it were, a well or shaft from the top to the bottom of the building. Where many persons have been attempting to descend at the same time, one above has sometimes fallen upon those below, thus resulting in great loss of life. I have found it desirable to make the balcony or landing of some considerable area and arrange the ladder in sections on opposite sides the stand-pipe alternately between the different balconies, the man-holes in the balconies being in each case directly above the section of ladder leading down from the same. By this arrangement the man-hole in any given balcony is brought out of the range of the man-hole in the balcony above and that in the balcony below. The man-holes are placed each at the same distance from the building as well as the ladder-sections and preferably in near proximity thereto, so that the projection of the fire-escape from the building—that is, the space occupied—may be as little as possible.

My invention consists in the combination, with the stand-pipe, of the sectional ladder, the successive sections or stories of the ladder being placed on opposite sides of the stand-pipe between the different balconies and the balconies being provided with man-holes, the man-hole of each balcony being at the top and on the inner side of the section of ladder leading down from the same.

My invention consists, also, in the manner of securing the sections of the ladder to the stand-pipe and to the balcony.

My invention will be readily understood by reference to the accompanying drawing, in which I have shown a perspective view of a combination stand-pipe and fire-escape embodying my invention.

The stand-pipe *a* is of usual construction, extending vertically from near the ground to the roof. The balconies *b c d* are secured to the buildings, preferably as shown, so as to be accessible to windows at the different stories. Each of these balconies is provided with a man-hole. The man-holes of the different balconies, however, are not placed directly one above the other, as has been usual heretofore—that is to say, the man-hole *e* of balcony *b* is to the right of the man-hole *f* of balcony *c*, while the man-hole *g* of the next balcony *d* is to the right of the man-hole *f*; in other words, the man-holes of any two consecutive balconies will not be in the same vertical position. Therefore, there will not be a vertical shaft or well formed by the man-holes, as is the case when the man-holes are arranged one directly above the other, vertically.

The ladder of the fire-escape, instead of being continuous and upon one side of the stand-pipe, as heretofore, is composed of sections *h i k l*, the sections being placed alternately on opposite sides of the stand-pipe. It will be seen that the section *h* is placed directly below the man-hole *e* of balcony *b*, while the section *i*, on the opposite side of the stand-pipe *a*, is placed directly below man-hole *f* of balcony *c*, and in like manner ladder-section *k* is placed below man-hole *g* of section *d*. The upper section or story *l* of the ladder is placed to the left of man-hole *g*, and extends to the roof.

The stand-pipe and the sections or stories of the ladder are preferably supported, as shown, by the floor and railing of each of the different balconies.

The stand-pipe may be clamped or bolted

to the balcony. I have found that a staple *m* placed over the pipe and held to the frame of the floor by nuts is a suitable clamping device.

Side *n* of each section of the ladder is bolted to the stand-pipe, while the other side *o* extends, as shown, from the floor of one balcony to the upper rail of the balcony above. This side *o* is secured to the floor of each of the two balconies and to the railings thereof, preferably in the manner illustrated.

It is evident that one wishing to descend—as from balcony *d*—would pass through the opening *g*, down the inner side of the ladder-section *k*. Having reached the floor of balcony *c*, the one descending would pass over to opening *f* and thence down on the inside of the ladder-section *i*, and so on to the ground. It will thus be seen that there will be no danger to one person falling upon another from the great height, and that dizziness heretofore caused by looking down a long series of openings will be avoided, while the different sections of the ladder and the stand-pipe will be securely held in place and readily accessible whenever required.

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

1. The combination, with the stand-pipe permanently secured to the balconies of a building, of the sectional ladder secured to the stand-pipe, the different sections extending each from one balcony to another, and each section being on the opposite side of the stand-pipe from the section preceding the same, the floors of said balconies being provided with man-holes, the man-hole of each balcony being at the top of the ladder-section extending down from the same, substantially as and for the purpose specified.

2. A fire-escape consisting of balconies and sections of ladders, in combination with a stand-pipe placed vertically and secured to the different balconies, the sections of the ladder being placed successively on opposite sides of the stand-pipe, and a man-hole in each balcony at the top of the ladder extending down from the same, substantially as and for the purpose specified.

3. The combination, with the vertical stand-pipe *a*, of balconies *b c d*, to which the stand-pipe is secured, ladder-sections *i k l*, and openings *e f g* in the balconies, respectively, one side of each ladder-section being secured to the stand-pipe and the other being secured between the balconies, as described, said sections being arranged successively on different sides of the stand-pipe, and the openings or man-holes *e f g*, corresponding in position to the different ladder-sections, substantially as and for the purpose specified.

4. The combination, with the balconies provided each with a man-hole, of a ladder consisting of different sections or stories, the successive sections or stories of said ladder being placed vertically between the balconies, and each section or story of the ladder having an opening in the balcony at the top of the same, and the floor of the balcony at the foot of each section serving as a landing, said ladder-sections and said man-holes being respectively at the same distance from the building, whereby one descending from one balcony to another is prevented from falling down through the successive openings, substantially as and for the purpose specified.

In witness whereof, I hereunto subscribe my name this 4th day of March, A. D. 1889.

FRANK W. BARKER.

Witnesses:

GEORGE P. BARTON,

GEO. R. PARKER.