

William. Henley.
Fire Escape Stair-Case.

116441

PATENTED JUN 27 1871

Fig 1.

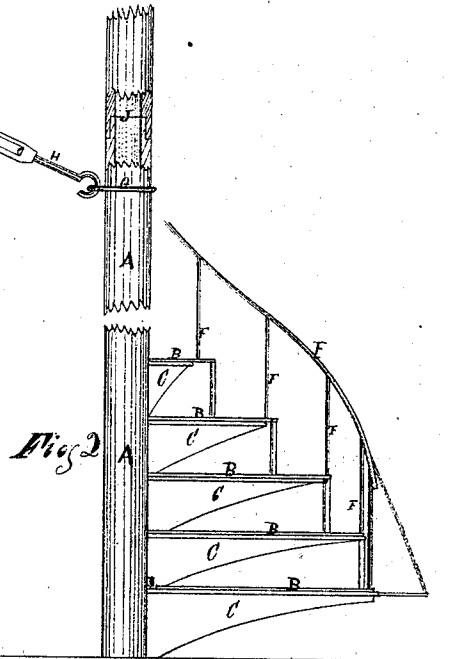
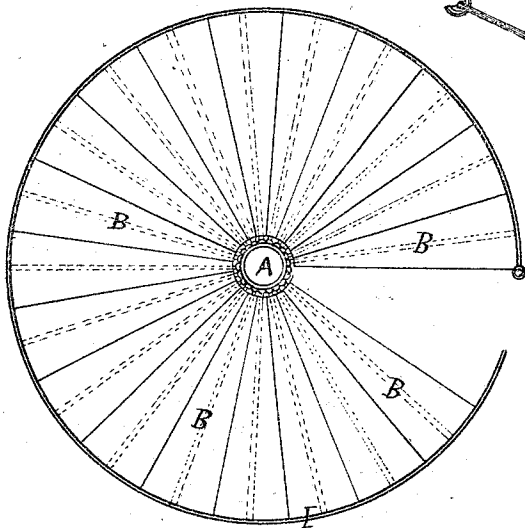


Fig 3.

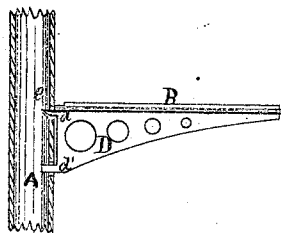


Fig 4.

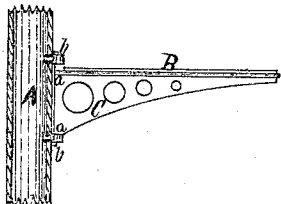
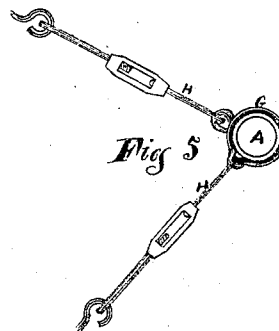


Fig 5



Witnesses
A. H. Sheshum
A. C. Endley

Inventor

William Henley

UNITED STATES PATENT OFFICE.

WILLIAM HENLEY, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. 116,441, dated June 27, 1871.

To all whom it may concern:

Be it known that I, WILLIAM HENLEY, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Fire-Escape Staircase; and I do hereby declare the following to be 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 drawing forming part of this specification, in which—

Figure 1 is a general plan of a staircase embodying my invention. Fig. 2 is an elevation of a portion of the same. Figs. 3 and 4 are vertical central sections of the cylinder, showing the manner of securing the steps thereto; and Fig. 5 is a plan of the mechanism employed in securing the staircase to the walls of the building.

Similar letters of reference indicate like parts in the several figures of the drawing.

My invention relates to that class of staircases in which the steps are separately secured to and upon a series of brackets arranged spirally upon a vertical cylinder; also, in the mechanism by which the said case is secured to the walls of the building; and its construction will be fully understood from the following description.

In the drawing, A represents a metal cylinder or post, upon and around which the steps B are spirally arranged; and C represents the brackets upon which the steps are firmly secured. The brackets and steps are also made of metal and of any suitable design, and may be provided upon the upper and lower edge of the brackets with lugs *a a*, extending upward and downward, through which lugs are passed screw-threaded bolts *b b*, which are firmly secured within the case of the cylinder, as shown in Fig. 4, by which the brackets are secured in position. D, Fig. 3, represents a bracket of different form, which is provided with lugs or projections *d d'* extending horizontally outward from its end, and are introduced into apertures in the side of the cylinder, the lug *d* being

provided at its outer end with a hook, *e*, which engages the inner side of the cylinder-case, by which the bracket is secured in position. E is the rail, and F the balusters, which are attached to the steps in the usual manner. Firmly affixed upon and around the cylinder, at any desired graduated distances, are clasps G, to which are secured swivel-jointed rods H H, which are firmly affixed to the walls of the building in the position shown in Fig. 5, by which means the said cylinder is secured firmly in a vertical position. I construct the cylinder of a hollow metal tube of the diameter and thickness of metal desired, and in sections, which are connected one to the other, as shown at J, Fig. 2, by which a staircase of any desired height may be built, arranged upon the outer side of the building, and communicating with the windows of the several stories, or may be arranged within the building at any desired point, thus forming an effective fire-escape.

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

1. In combination, the cylinder A constructed in sections, as described, brackets D provided with lugs *d d'*, steps B, rails E, and balusters F, the whole arranged substantially as and for the purpose described.

2. In combination, the cylinder A constructed in sections, as described, brackets C provided with lugs *a a*, steps B, rail E, baluster F, clasps G, and swivel-jointed rods H H, the whole arranged substantially as and for the purpose described.

The foregoing specification of my invention signed by me this 7th day of April, A. D. 1871.

WILLIAM HENLEY.

Witnesses:

N. C. GRIDLEY,
N. H. SHERBURNE.