

(No Model.)

2 Sheets—Sheet 1.

C. CLARKE.  
FIRE ESCAPE TOWER.

No. 318,086.

Patented May 19, 1885.

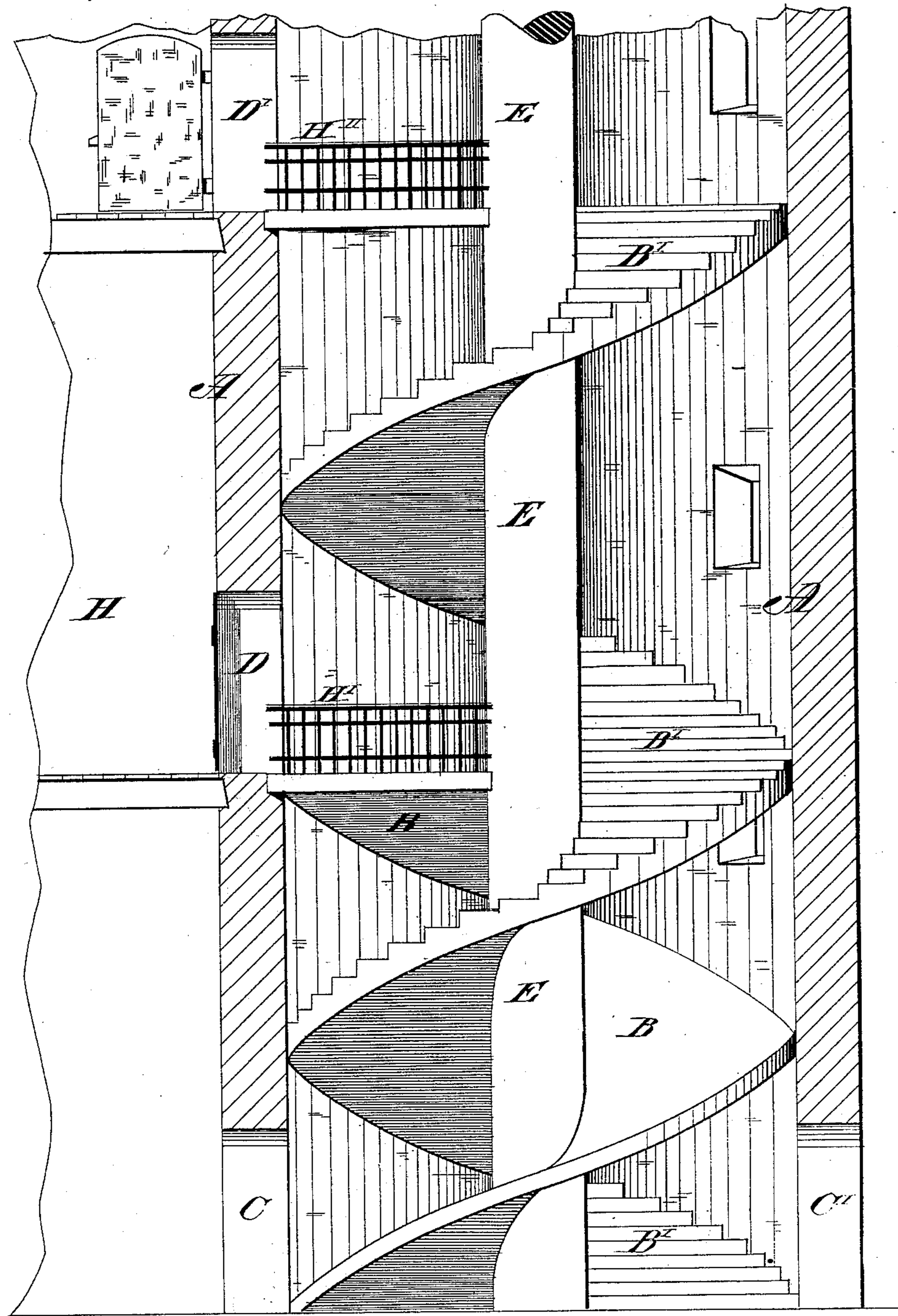


Fig. 1.

Witnesses,  
R. M. Tyler  
J. M. H. H. H. H. H.

Inventor,  
Christopher Clarke,  
By R. F. Hyde,  
att'y.

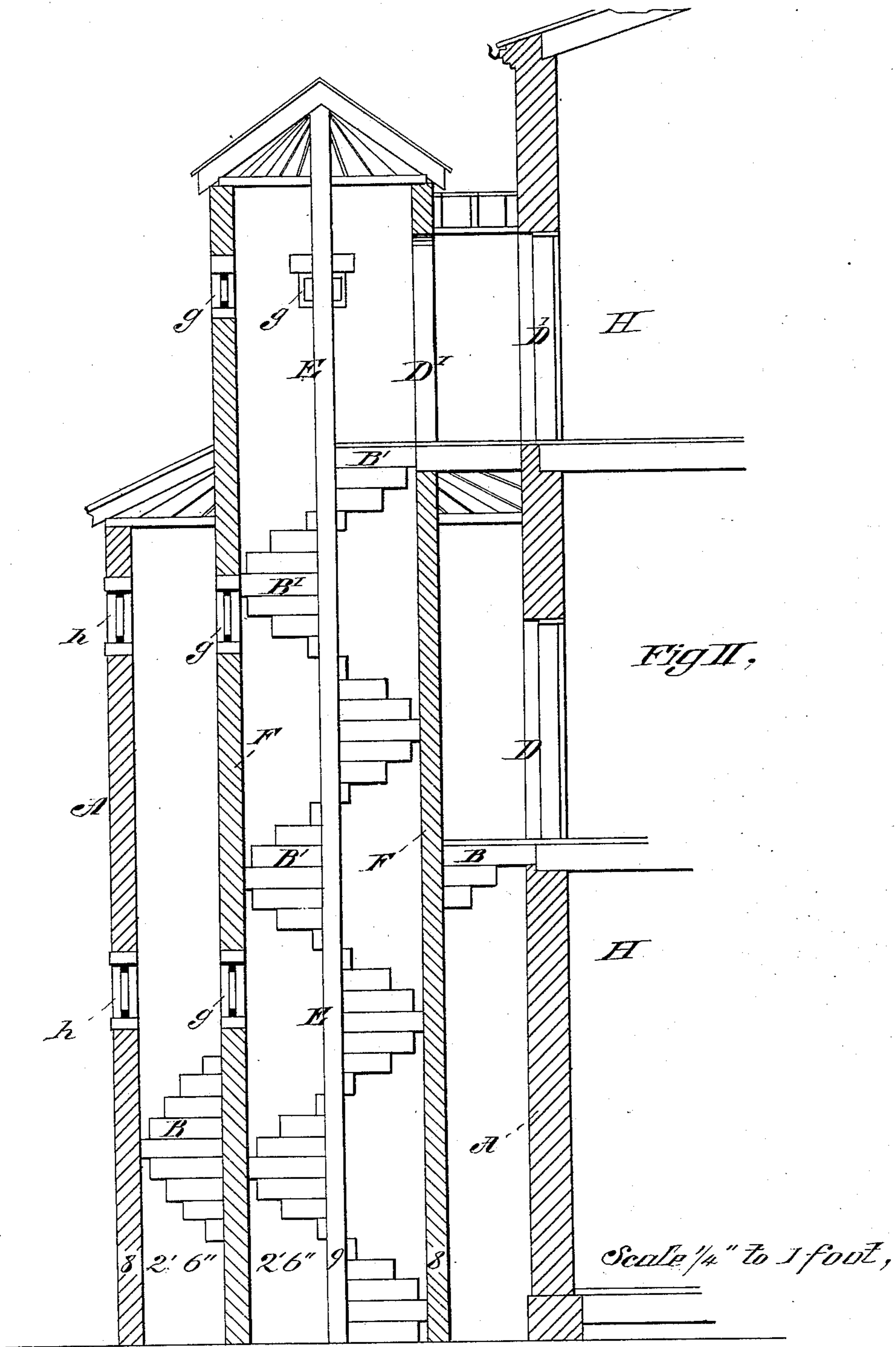
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2 Sheets—Sheet 2.

C. CLARKE.  
FIRE ESCAPE TOWER.

No. 318,086.

Patented May 19, 1885.



Witnesses.  
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Inventor,  
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# UNITED STATES PATENT OFFICE.

CHRISTOPHER CLARKE, OF NORTHAMPTON, MASSACHUSETTS.

## FIRE-ESCAPE TOWER.

SPECIFICATION forming part of Letters Patent No. 318,086, dated May 19, 1885.

Application filed March 10, 1884. Renewed October 30, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, CHRISTOPHER CLARKE, a citizen of the United States, residing at Northampton, Hampshire county, State of Massachusetts, have invented a new and useful Improvement in Fire-Escape Towers, of which the following is a specification.

My invention relates to improvements in fire-escape towers, having for their object the provision of passage-ways in the same tower, which cannot be obstructed by the jamming of separate crowds at the landings of different floors opening upon the tower, and which cannot become filled with smoke from a fire in any part of the building of which it forms part; and my invention consists in the arrangement around a common axis of two or more spiral passage-ways formed to be each completely isolated from the others for its whole length.

This invention is fully illustrated in the accompanying drawings, in which Figure I is an elevation in partial section of a tower having my improvements, and Fig. II is an elevation in partial section of a modification of the same.

A is the wall of a tower, which forms part also of the main wall of the building, or may be that of a detached tower.

D D' are doorways giving access to the tower from the first and second floors, respectively, of a building, H.

B' is a spiral stairway leading from the doorway D' to the exit C' at the base of the tower. B is a spiral stairway leading from the doorway D upon the first floor to the exit C, also at the tower-base. E is an axis common to both ways B B'. To more clearly distinguish the two ways, the one, B, is shown with a smooth surface or treadway, and it is immaterial to the invention what surface is provided for this purpose.

It will be seen that two columns of people descending the stairways B B' will be completely shut off one from the other, and that people escaping from the building cannot be crushed in converging masses, so that in school-houses, theaters, and other crowded buildings, one great danger incident to fires or panics may be avoided.

In school-houses or other places where the

sexes are divided the stairways B B' may lead from the same floor by having separate entrances provided through the wall A, by means of which the strong are prevented from trampling upon the weak.

In Fig. I, in order to more clearly show the invention, railings H' H'' are placed at the landings at the head of the ways B B'; but in practice, if the tower is partially or entirely inclosed in the building, so that smoke could penetrate it through the doorways leading thereto, I substitute for said railings solid partitions joined to the surfaces of axis E and bottom of stairway above, by means of which the ways B B' are so isolated that smoke pouring into the tower from any lower floor could not reach the other way, nor could smoke from the upper floor have access to the way leading from the lower.

In towers so removed from the main building as to be practically free from the danger of being filled by smoke, or in a tower having skeleton floorways or walls, the railings H' H'' are made so that they cannot be scaled, it only being essential to my invention that the ways B B' are inaccessible one from the other.

In Fig. II the ways B B' are shown around a common axis, E, but separated by a smoke-proof wall, F, so that one way, instead of being parallel to and below the other, is concentric thereto, which form of construction enables the pitch of the two ways to be varied, if desired, to bring the exit of the outer to any point in the circumference of the tower, or to adapt it to a difference in rise of the two stories.

Both passage-ways, as shown in Fig. II, are completely isolated. The inner one is lighted by windows g, those within the outer wall, A, of the tower being placed opposite the ones h in the wall A, and I form these windows of thick heavy glass.

Now, having described my invention, what I claim is—

1. The within-described improvement in fire-escape towers, consisting of the arrangement within a tower and around a common axis of two or more spiral passage-ways having separate entrances and exits, and each constructed to have no intermediate passage-way

leading thereto from beginning to end, and each to have no possibility of exit therefrom from end to end, for the purpose as set forth.

2. In a fire-escape tower, the combination  
5 and arrangement within a tower and around a common axis of two or more spiral passage-ways adapted to be each inaccessible

from the others, and to be each smoke-tight and isolated from the others, for the purpose as set forth.

CHRISTOPHER CLARKE.

Witnesses:

R. F. HYDE,

ROBT. HITCHCOCK.