

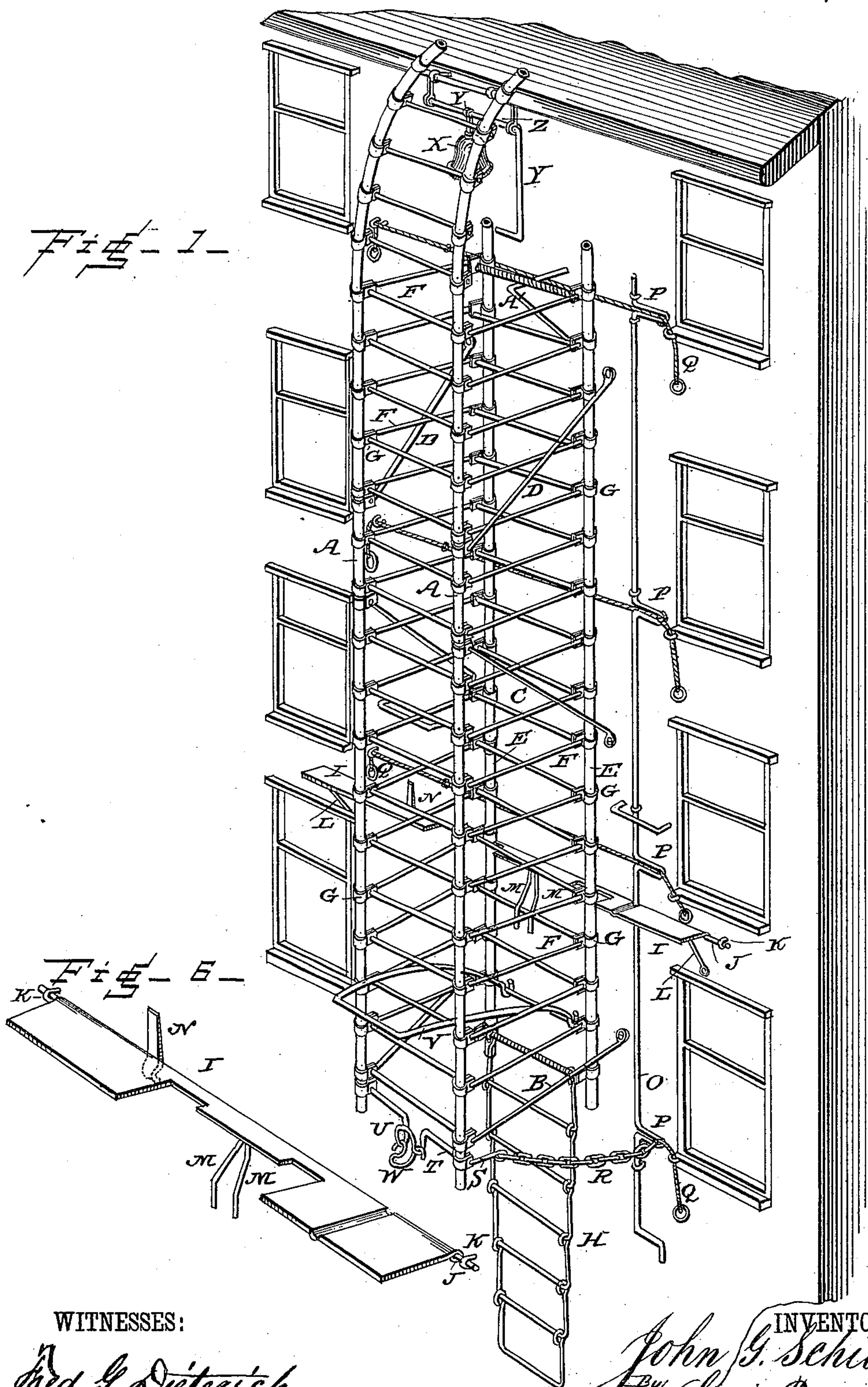
(No Model.)

2 Sheets—Sheet 1.

J. G. SCHILLER.  
FIRE ESCAPE.

No. 300,902.

Patented June 24, 1884.



WITNESSES:

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*Wm. Scherer*

INVENTOR.

*John G. Schiller*  
By *Louis Bagger & Co.*  
ATTORNEYS.



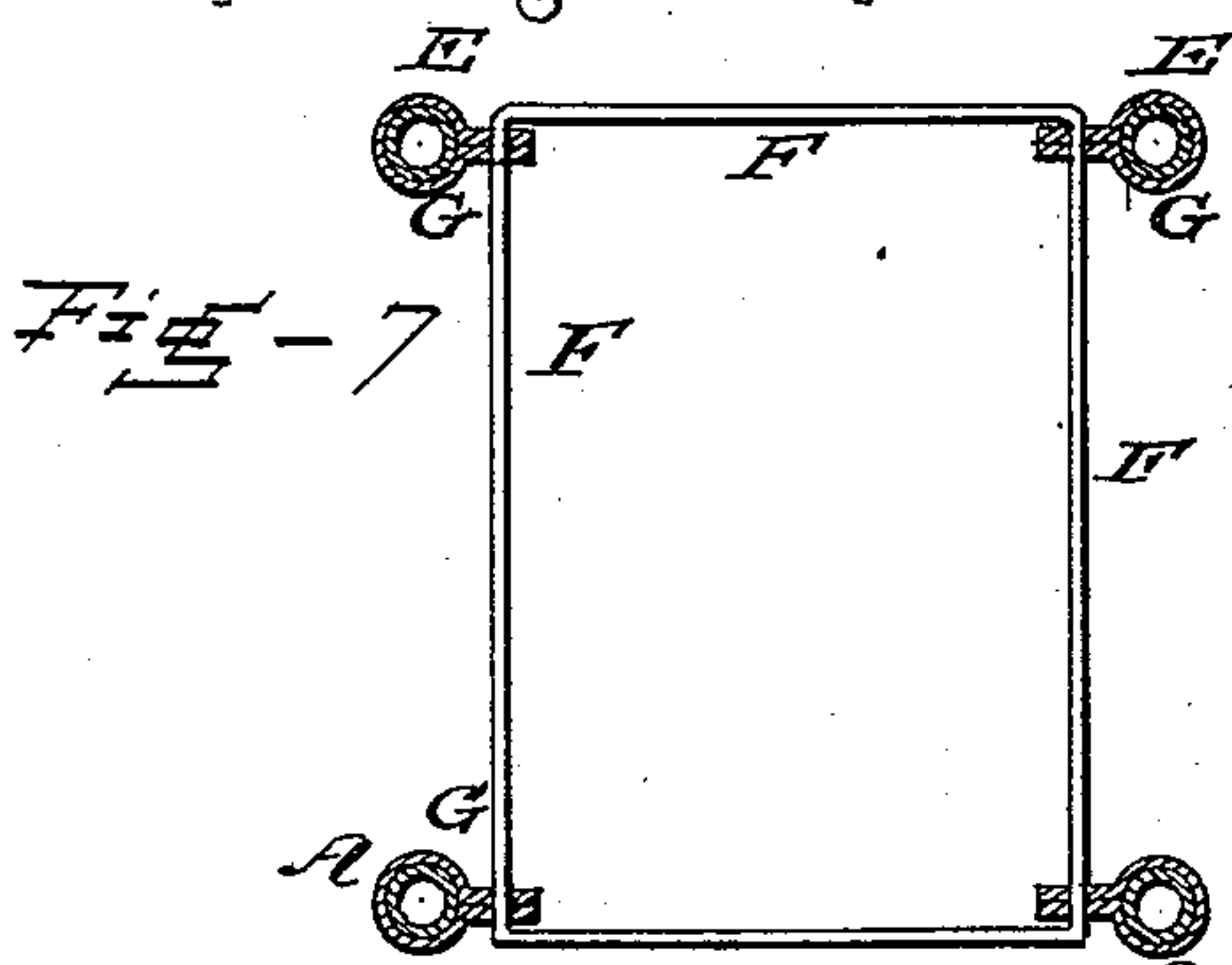
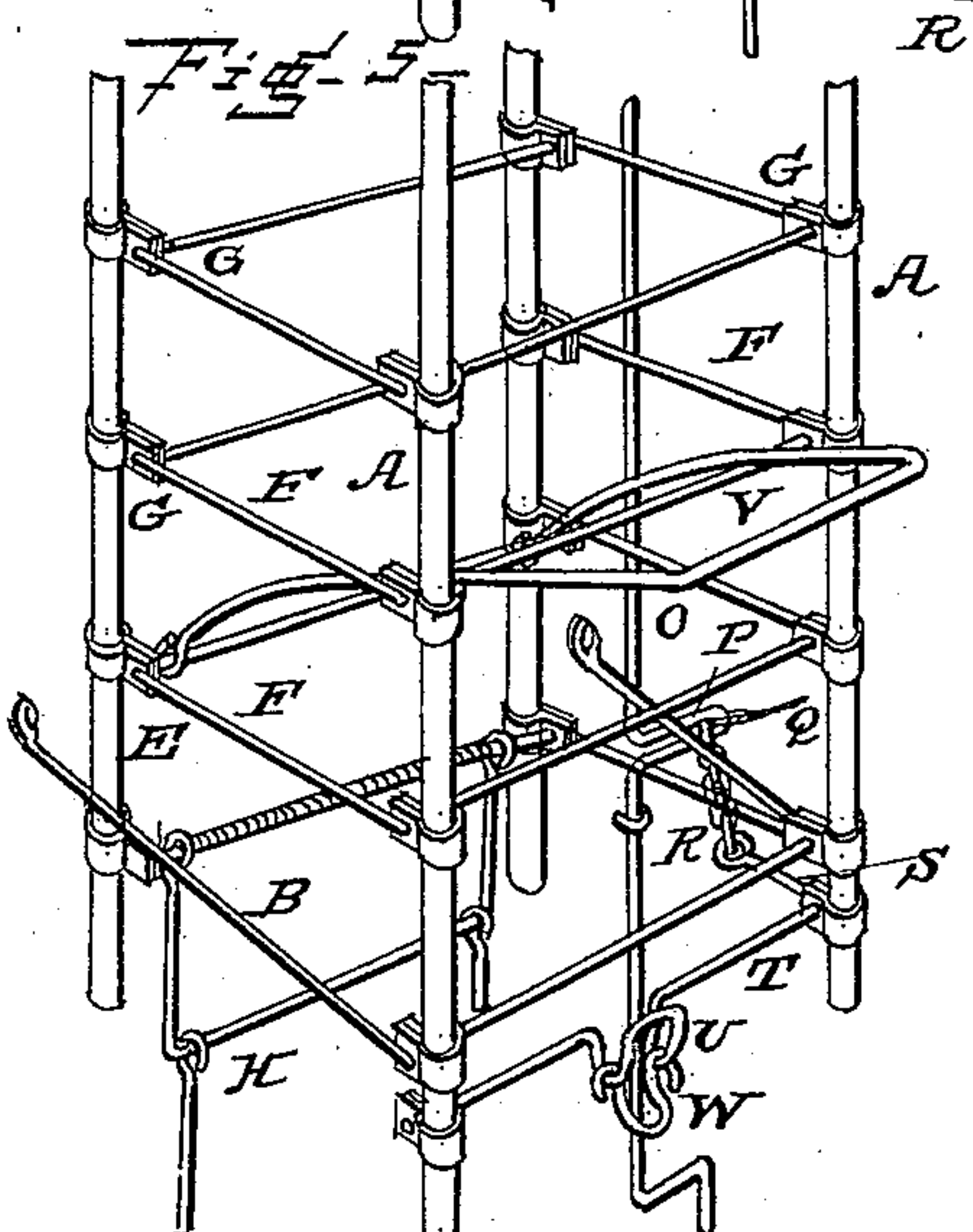
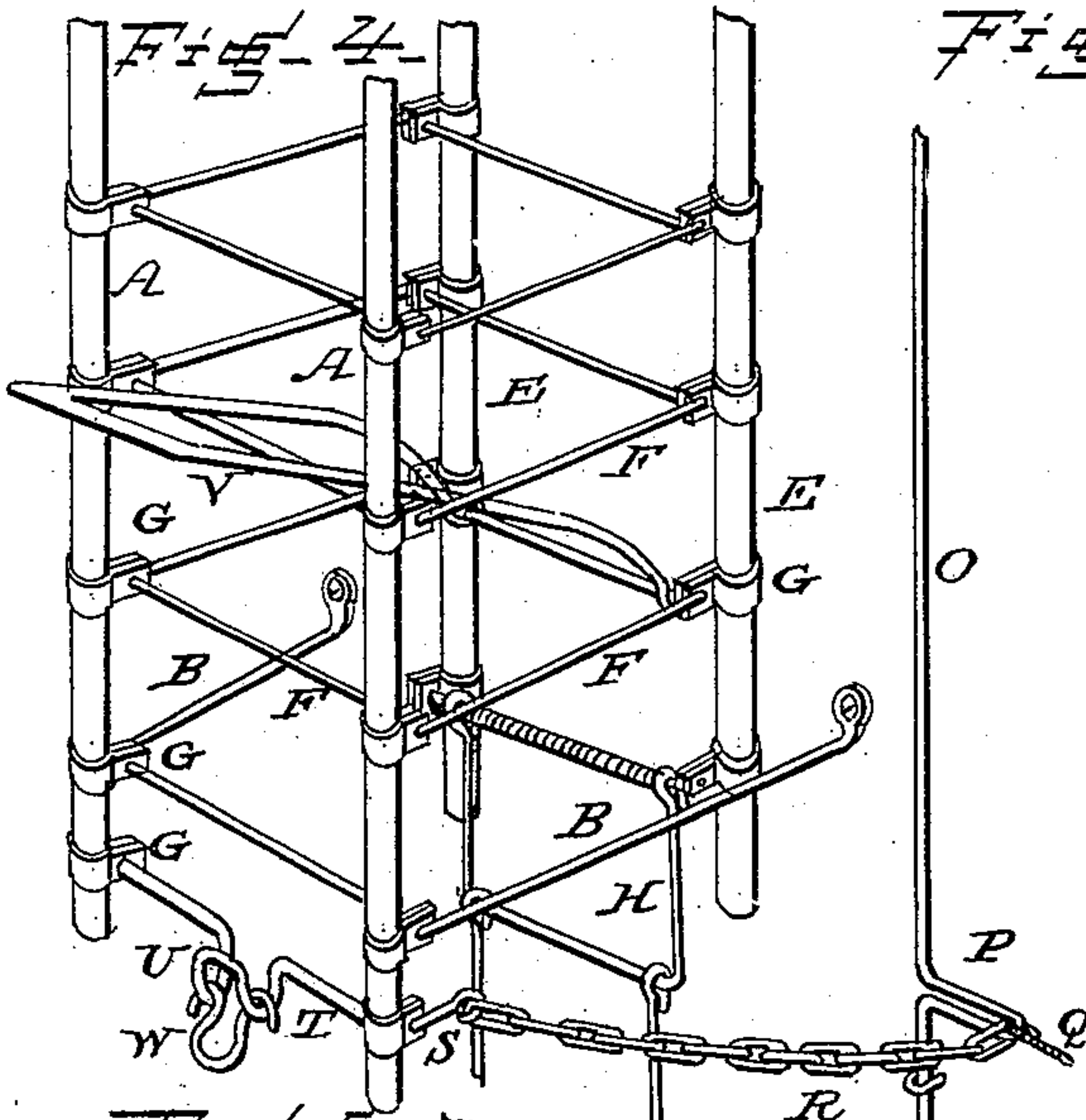
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2 Sheets—Sheet 2.

J. G. SCHILLER.  
FIRE ESCAPE.

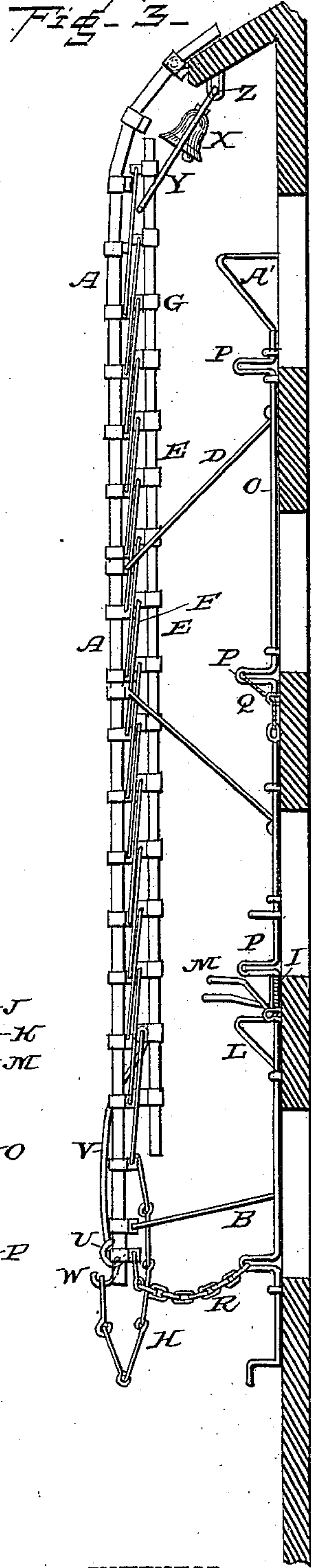
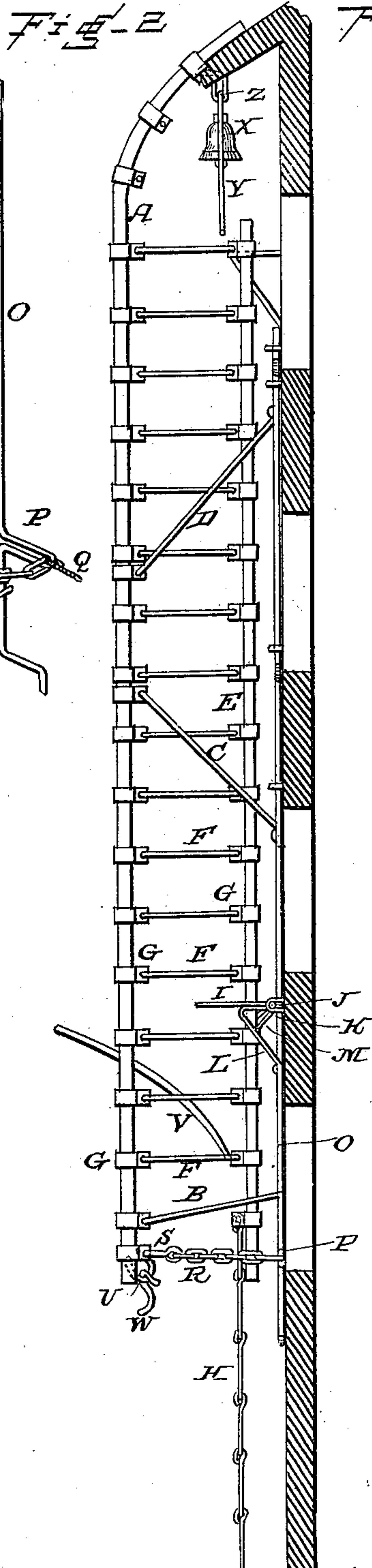
No. 300,902.

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WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN G. SCHILLER, OF YOUNGSTOWN, OHIO.

## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 300,902, dated June 24, 1884.

Application filed April 3, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN G. SCHILLER, a citizen of the United States, and a resident of Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Fire-Escapes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to 10 which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of a portion 15 of a building provided with my improved fire-escape, showing the escape ready for use. Figs. 2 and 3 are side views of the escape, showing the building in section, the views representing, respectively, the escape folded up 20 and let down for use. Figs. 4 and 5 are perspective detail views of the mechanism for folding up and releasing the escape. Fig. 6 is a similar view of one of the balconies, and Fig. 7 is a detail view of the fastening or 25 hinge for the bars or pipes of the ladder and the rectangular round frames.

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

My invention has relation to stationary fire-escapes for buildings; and it consists in the improved construction and combination of 30 parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letters 35 A A indicate two parallel bars or pipes secured parallel with and at a distance from the wall of a building, extending from a distance from the ground sufficiently to prevent a person from reaching their lower ends from the 40 ground to the top of the building, and, although bars may be used, I prefer to use pipes, which may be used for the purpose of conveying water to the several stories of the building from the engine in the case of a fire, 45 the pipes being provided with suitable taps or branches for the attachment of hose. These bars or pipes are secured at a distance from the wall of the building, sufficient to prevent a person from reaching the windows from them, 50 by means of brackets B, and the brackets at the middle, which I have designated by C and

D, project one upward and the other downward, forming inclined braces, which will serve to hold the bars at their distance from the wall of the building regardless of the 55 weight brought to bear upon them. A ladder formed by parallel side rails, E E, is hinged to the inner sides of the parallel bars or pipes by means of rectangular round frames, F, the end pieces of which turn in clips G upon the 60 facing sides of the bars or pipes and the rails of the hinged ladder, forming rounds for both the ladders formed by the bars or pipes and by the rails, and forming rounds for two ladders formed when the swinging ladder is let 65 down between the side rails of the two ladders. In this manner a square of ladders may be formed when the swinging ladder is let down from the rigid ladder, and a flexible ladder, H, formed of large square links, is hinged to 70 the lower end of the swinging ladder, connecting the same with the ground. The ladders are preferably placed between the windows, so that access may be had from two windows in the same story, and for the purpose of hav- 75 ing easy access to the ladders from the windows, balconies or platforms I are hinged upon the face of the wall, each pair of balconies being secured upon a rod, J, turning in bearings K upon the wall, and resting, when 80 folded out, upon brackets L upon the wall, which support the platforms. The center of this platform-supporting rod is provided with two arms, M M, which project out from the wall when the platforms are let down, and are 85 slightly curved and divergent, adapting them to be engaged by a round of the swinging ladder when the latter is released, which will force the arms downward and the platforms with them, the said platforms being forced up 90 against the wall by a spring, N, secured at its upper end in the wall, and bearing with its lower free and outwardly-springing end against the inner rounded edge of the platform, which is slightly eccentric to the plat- 95 form-supporting rod, acting in the same manner as the spring in the back of a pocket-knife.

A rod, O, extends from the ground up on the wall, turning in vertical bearings upon the 100 same, and forms bails or projecting arms P at every story, to the ends of which arms cords



or chains Q are attached, which cords or chains extend to the windows, from which they may be pulled.

A chain, R, is attached to the arm extending from the rod at the lower end of the ladders, and is attached at its other end to an arm, S, upon the end of a rod, T, turning in bearings at the lower ends of the pipes or bars of the rigid ladder, the central portion of which rod forms a hooked bail, U, projecting inward with the end of its hook.

A bail, V, is hinged at its ends upon one of the lower rounds of the swinging ladder, projecting with its doubled end between the side rails of the rigid ladder, and sliding and bearing upon one of the lower rounds of the same, and by drawing outward and depressing the outer end of this bail, which is slightly curved, the swinging ladder may be raised and swung to bear against the inner side of the rigid ladder, when the end of the bail may be retained in its downward-pointing position by the hooked bail upon the rod at the lower end of the rigid ladder, from which hooked bail it may be released by turning the vertical rod upon the wall to either side, which will cause the arm at its lower end to pull its chain, which again will draw upon the arm at the end of the rocking rod at the end of the rigid ladder, tilting the hooked bail downward, releasing the bail and the swinging ladder. A smaller hooked bail, W, is secured by its eyed ends upon the hooked bail upon the rocking rod, and serves to support the flexible ladder, suspended from the ground, and releasing it, allowing it to fall to the ground, when the hooked bail is tilted.

A bell, X, is suspended at the upper end of the rigid ladder, and has a pending arm, Y, attached to its rocking shaft Z, the lower end of which arm is bent, to be confined between the swinging and the rigid ladder, when the former is folded up, and will consequently be released when the swinging ladder is released, ringing the bell, serving as an alarm of fire, and at the same time giving alarm if the ladders are tampered with, thus preventing the possibility of the ladders being used for obtaining access to the building without the knowledge of its inhabitants or neighbors. In this manner it will be seen that the escape may be released by means of the cords or chains from every story, and that in releasing the swinging ladder the balconies or platforms and the flexible ladder will be released and the alarm-bell be rung, when four escape-ladders are provided and two stand-pipes, through which water may be forced from the fire-engines to the hose screwed upon the several nozzles or branches upon the stand-pipes or ladder-bars.

For the purpose of furthermore supporting the swinging ladder when the same is released, a bracket, A', projects upon the wall, upon which bracket the upper round of the said ladder may rest when it is down.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination, in a fire-escape, of the rigid ladder-bars having clips or bearings upon their inner sides, the swinging ladder-bars having clips or bearings upon their outwardly-facing sides, and the rectangular round frames hinged in the said clips upon the ladder-bars, as and for the purpose shown and set forth.

2. In a fire-escape, the combination of the rigid ladder supported from the wall of a building by brackets, with the central brackets extending upwardly and downwardly inclined from the wall of the building to the side bars of the ladder, as and for the purpose shown and set forth.

3. In a fire-escape, the combination of the rigid ladder, the swinging ladder, hinged by means of the rectangular round frames to the inner side of the rigid ladder, the slightly-curved bail, hinged with its inner ends to one of the lower rounds of the swinging ladder, and the rocking rod turning in bearings at the lower end of the rigid ladder, forming a curved hook at its middle adapted to engage the outer doubled end of the bail, and having means for tilting it, as and for the purpose shown and set forth.

4. In a fire-escape, the combination of the rigid ladder, the swinging ladder, hinged to swing inward from the rigid ladder, the slightly-curved bail, hinged with its ends near the lower end of the swinging ladder, the rocking rod, turning in bearings at the lower end of the rigid ladder, forming a hooked bail at its middle adapted to engage the outer doubled end of the curved bail, and having a projecting arm at one end, the vertical rod turning in bearings upon the wall, having projecting arms provided with chains for tilting it to either side, and the chain attached to an arm at the lower end of the vertical rod, and to the arm upon the rocking rod, as and for the purpose shown and set forth.

5. In a fire-escape, the combination of a balcony or platform pivoted in horizontal bearings upon the wall of the building, having supporting-brackets, and having its inner edge rounded and eccentric to the pivots of the same, a flat spring secured at its upper end in the wall, and bearing with its lower outwardly-springing end against the edge of the platform, and means for tilting the platform outward, as and for the purpose shown and set forth.

6. In a fire-escape, the combination of a platform pivoted upon the wall of the building, adapted to swing outward, and having two curved and slightly-diverging arms projecting outward when the platform is folded up, means for forcing the platform up against the wall, and a ladder swinging toward the wall, and adapted to engage with one of its



rounds between the arms upon the platform, forcing the latter down, as and for the purpose shown and set forth.

5 7. In a fire-escape, the combination of a rigid ladder secured at a distance from the wall of the building, a ladder hinged to the rigid ladder to swing in toward the wall of the building, and a bell suspended at the upper end of the ladders, and having an arm extending with its bent end between the ladders connected to the rocking-shaft of the bell, holding the bell still when the ladders are folded together, and releasing the bell and swinging it when the ladders are released, as and for  
10 the purpose shown and set forth.  
15

8. In a fire-escape, the combination of a rigid ladder secured at a distance from the wall of the building a distance from the ground, a ladder hinged to the rigid ladder to swing  
20 in toward the wall of the building, a slightly-curved bail hinged at its ends to one of the

lower rounds of the swinging ladder and bearing and sliding upon one of the lower rounds of the rigid ladder, a rod rocking in bearings at the lower end of the rigid ladder having  
25 means for tilting it, and forming a hooked bail at its middle adapted to engage the outer doubled end of the bail, a curved bail attached loosely to the hooked bail upon the rocking rod, and a flexible link-ladder attached to the  
30 lower end of the swinging ladder, and adapted to be suspended upon the curved loose bail, being released when said hooked bail and its rod are tilted, as and for the purpose shown and set forth.  
35

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN G. SCHILLER.

Witnesses:

FRED G. DETERICH,  
LOUIS BAGGER.