

(No Model.)

2 Sheets—Sheet 1.

S. KATZIN.
FIRE ESCAPE.

No. 550,076.

Patented Nov. 19, 1895.

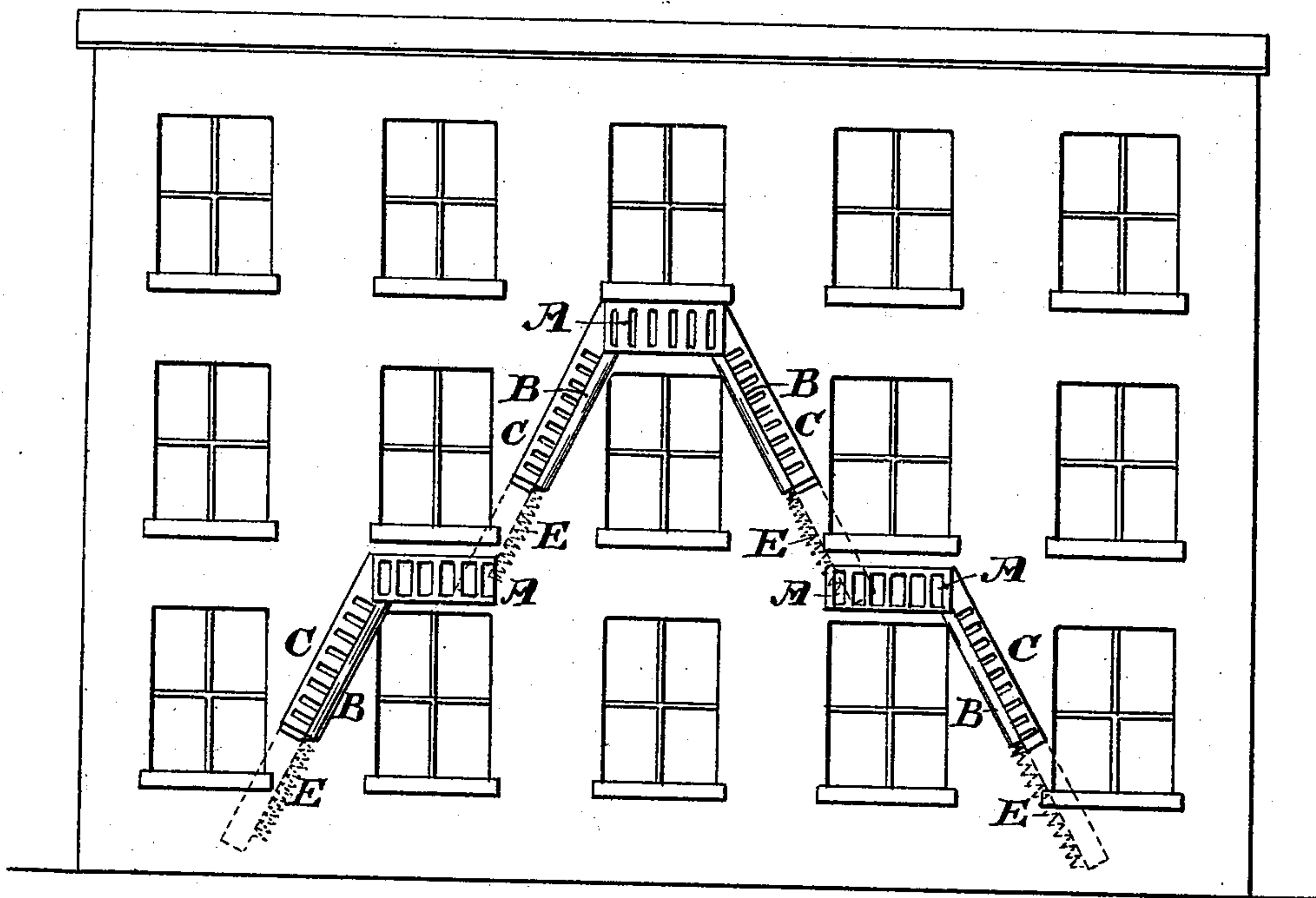


Fig. 1,

Fig. 2.

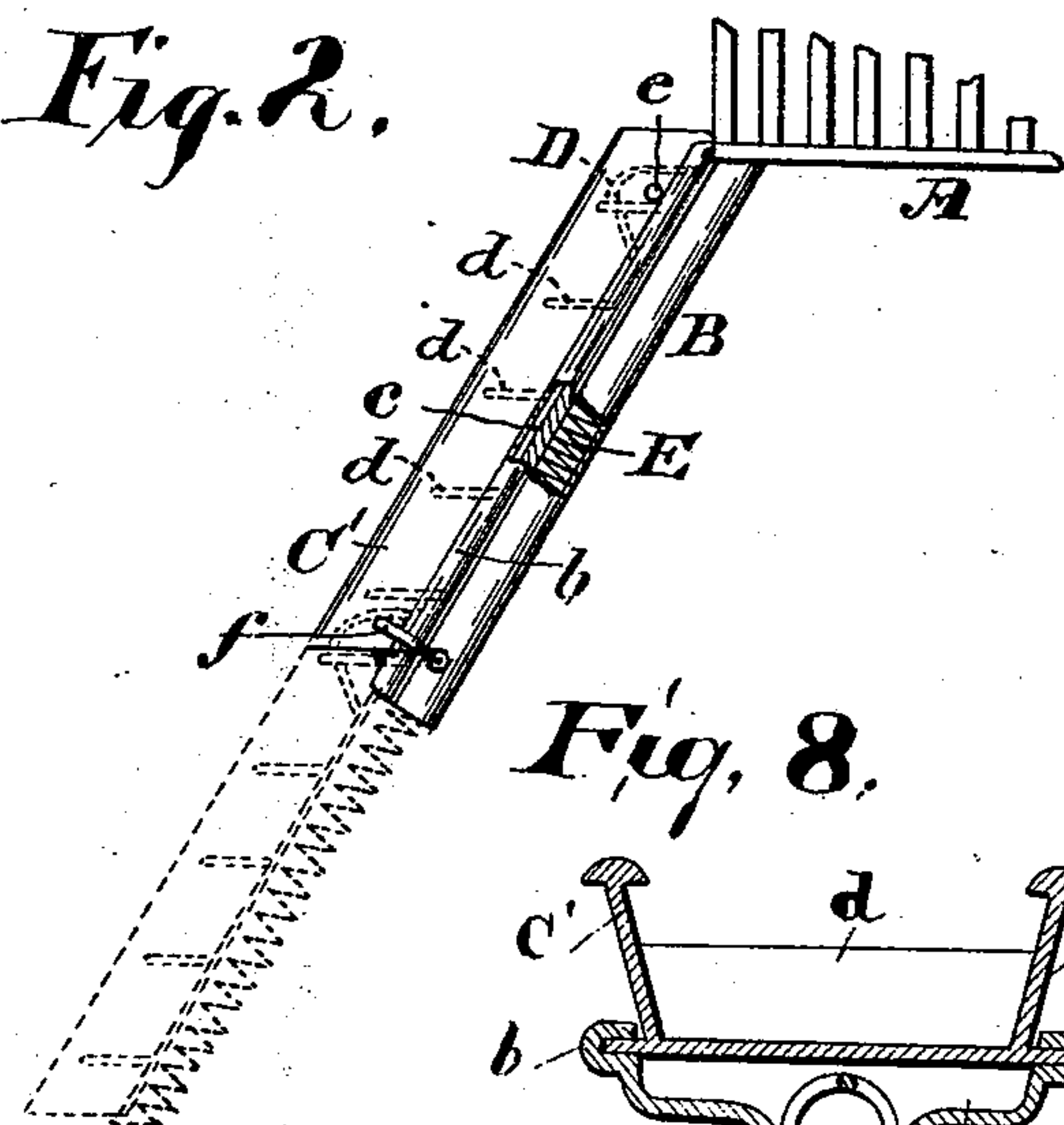


Fig. 8.

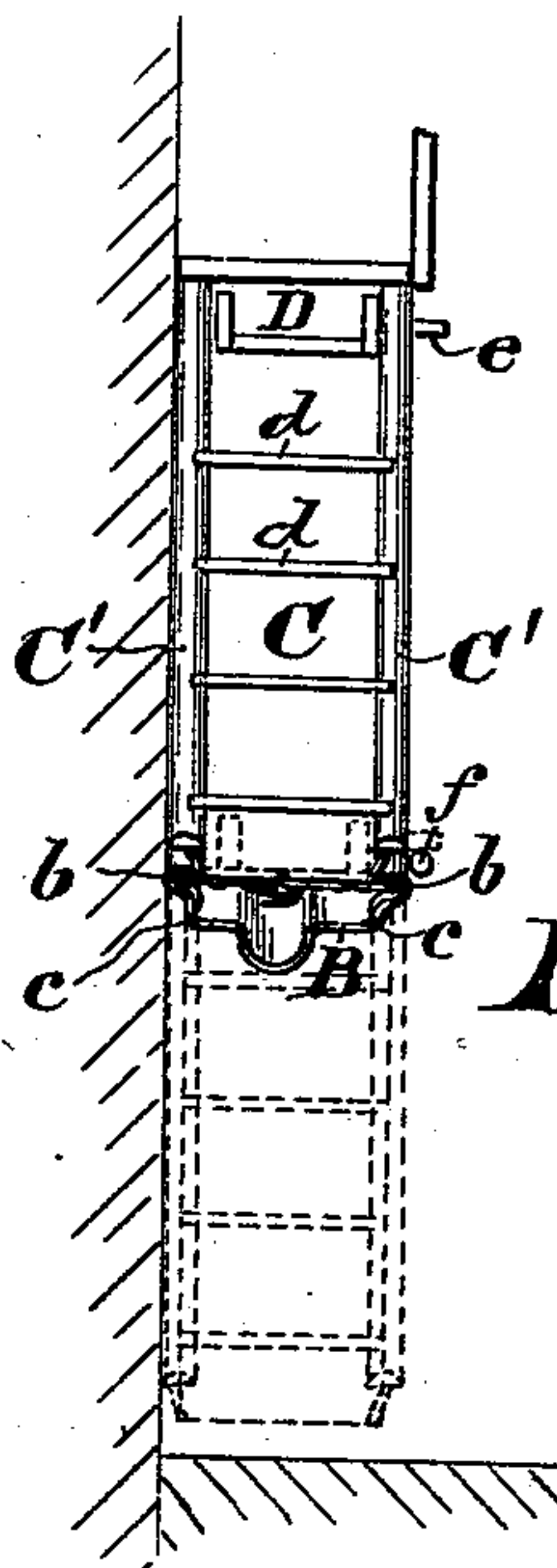
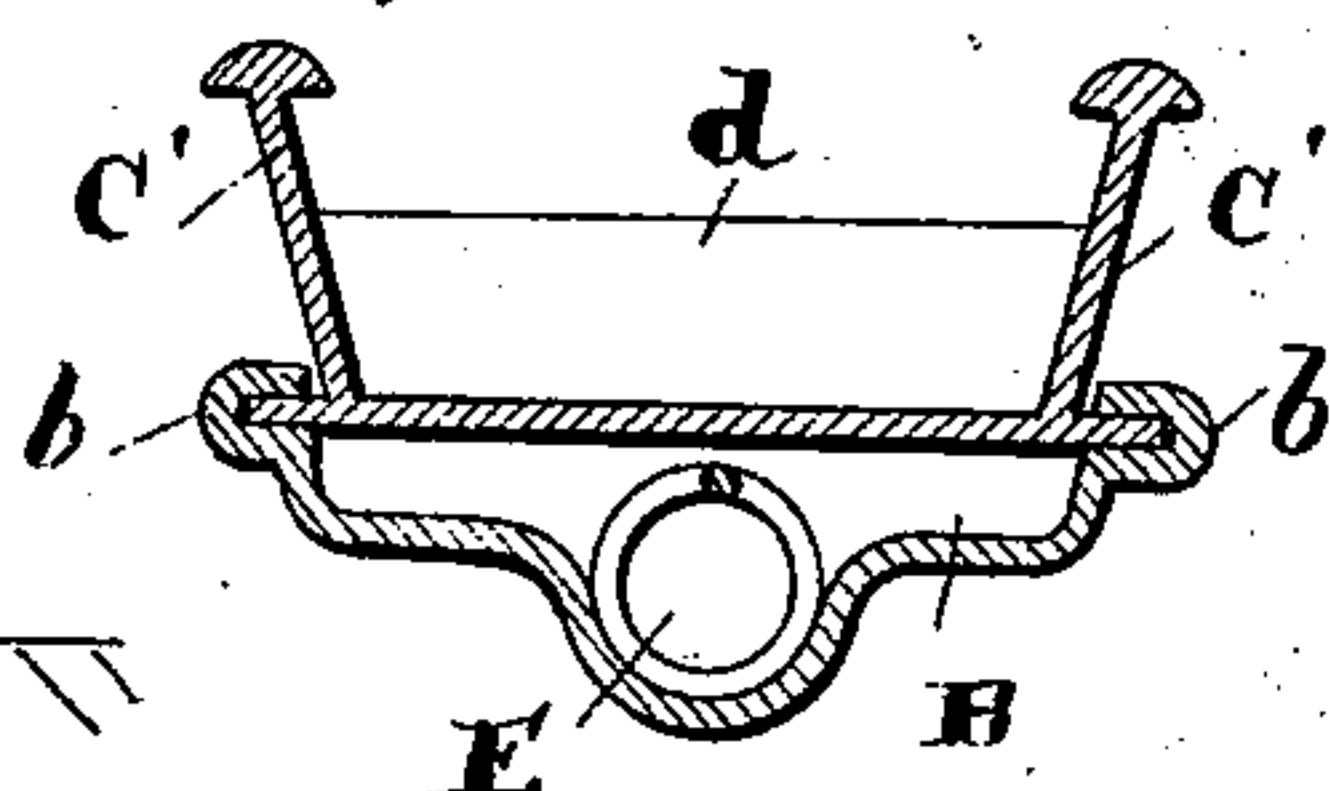


Fig. 3,

WITNESSES:

INVENTOR,

Robert Tollberger
Louis Proone

Samuel Katzin,

BY Drake & Co. ATTY'S.

(No Model.)

2 Sheets—Sheet 2.

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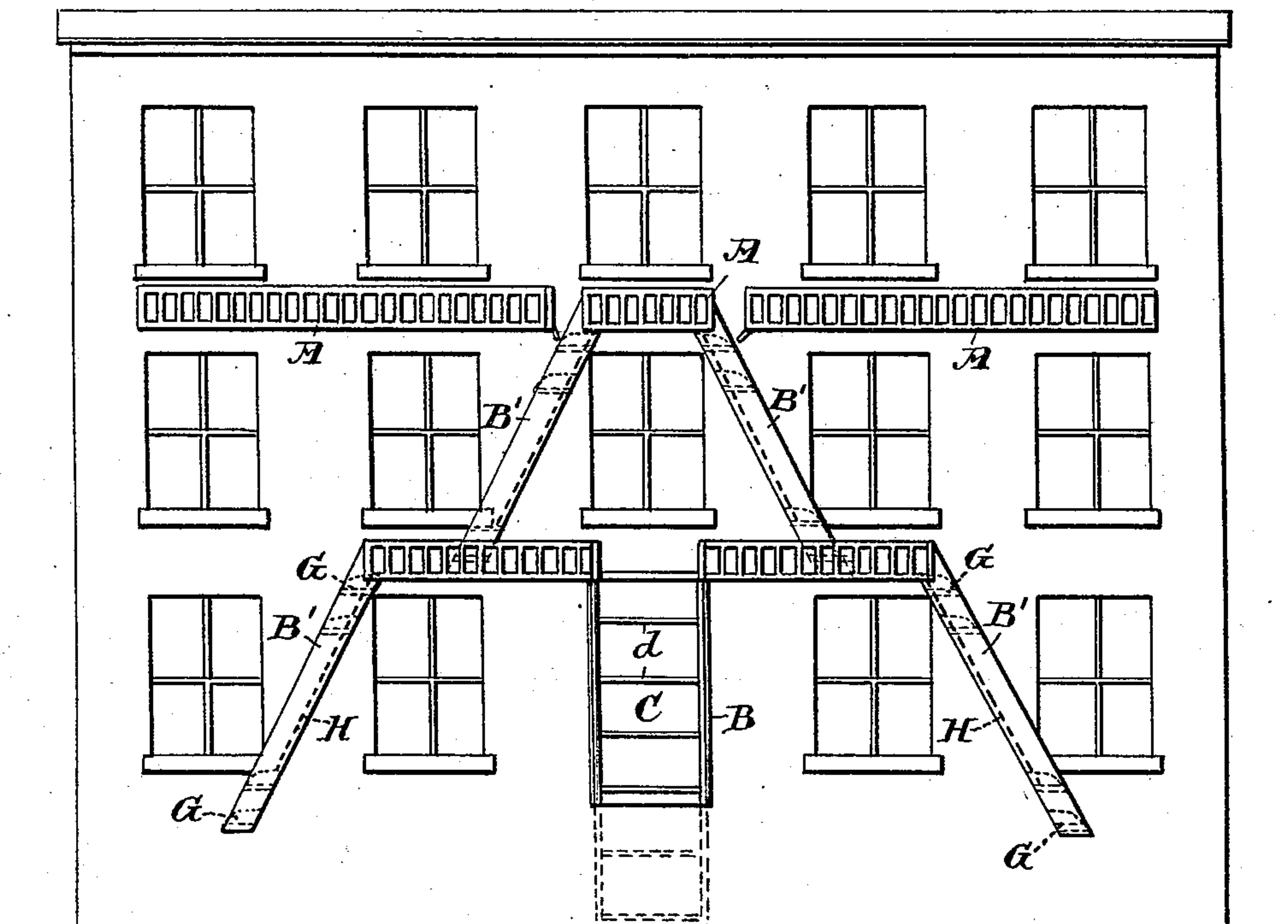


Fig. 4,

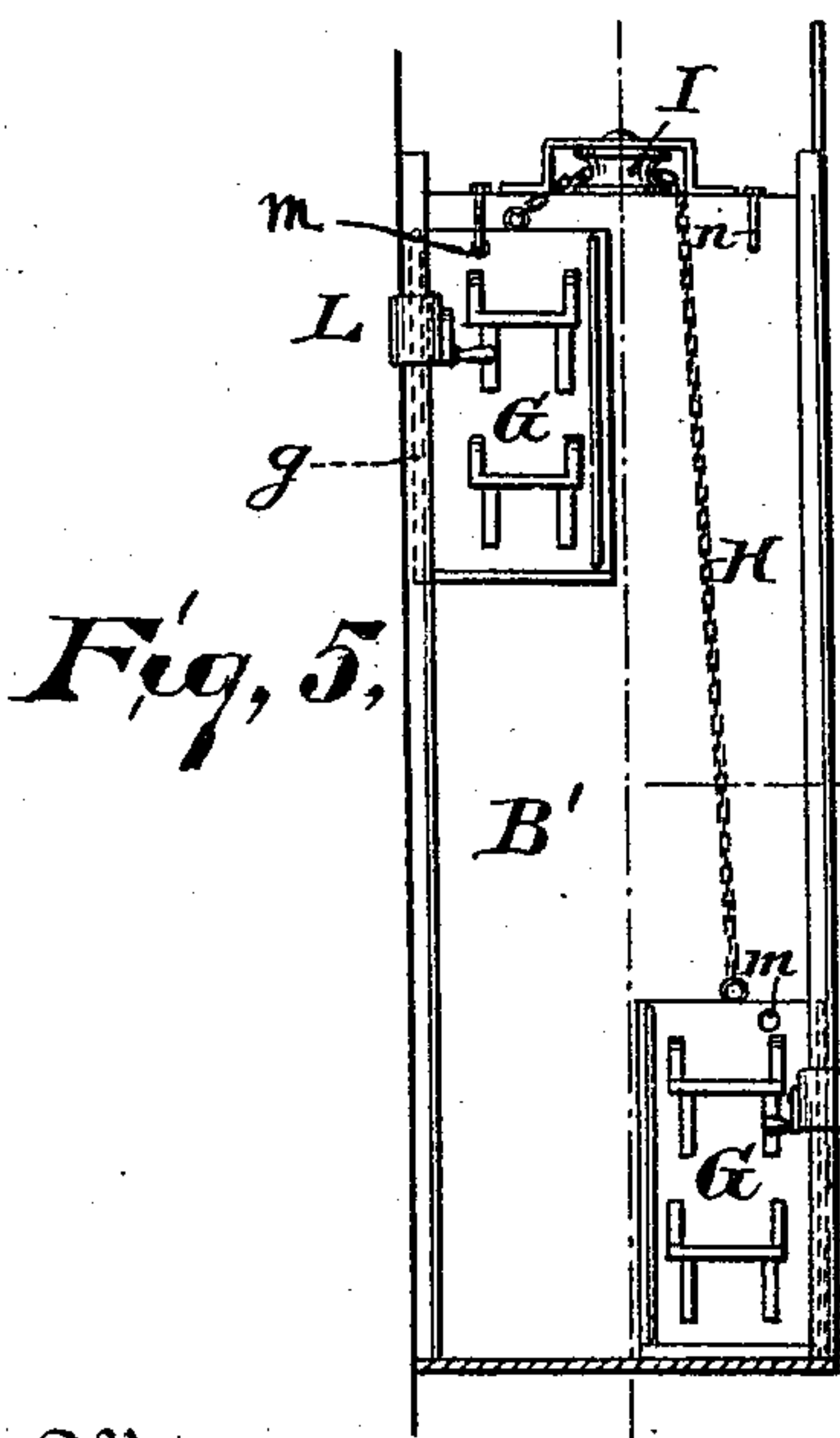


Fig. 5,

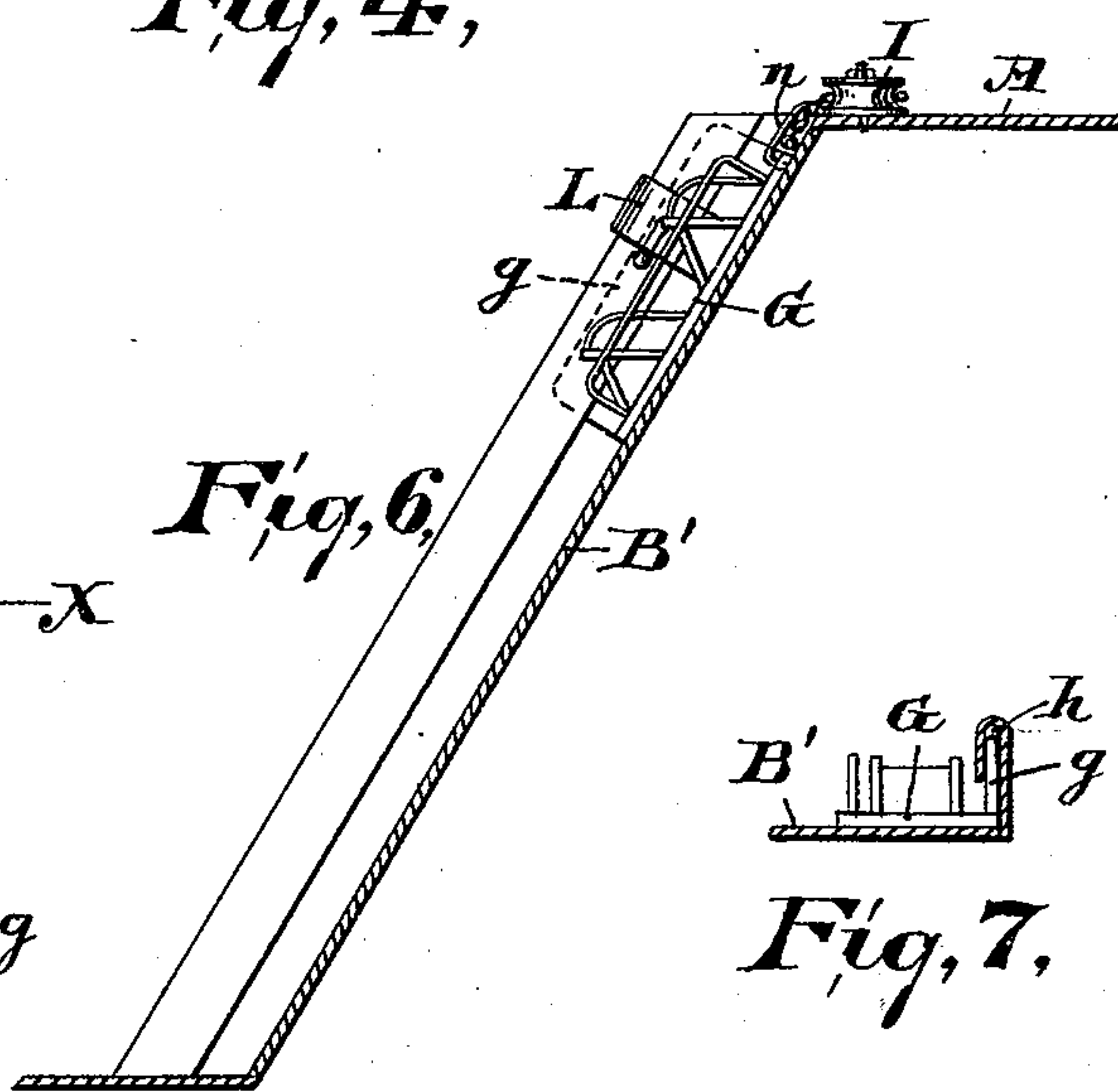


Fig. 6,

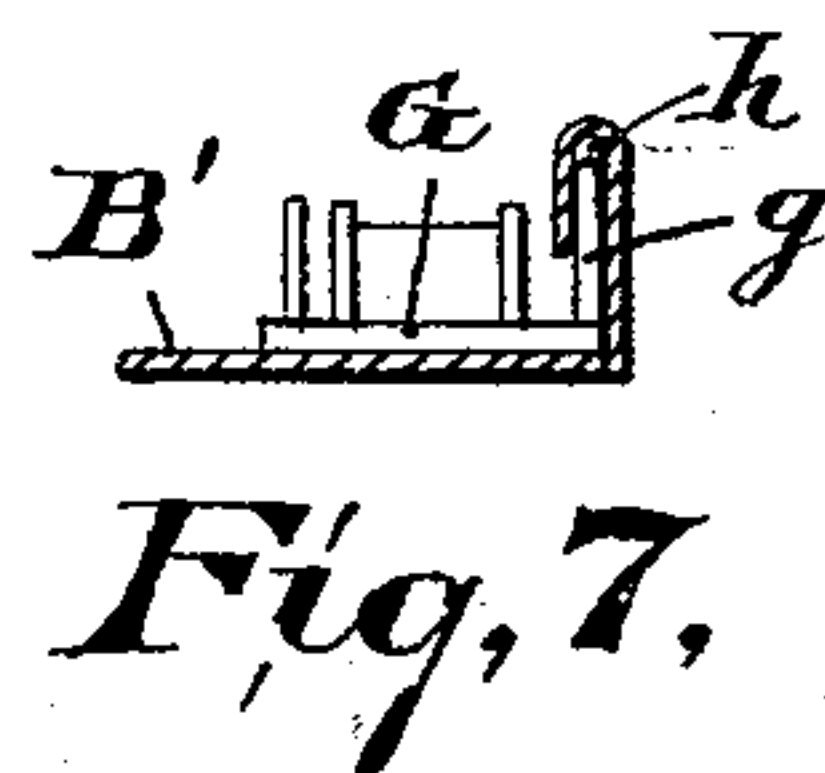


Fig. 7,

Witnesses

Inventor,

Robert Loeberger
Louis Brown

Samuel Katzin,
By Drake & Co. Atty's.

UNITED STATES PATENT OFFICE.

SAMUEL KATZIN, OF NEWARK, NEW JERSEY.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 550,076, dated November 19, 1895.

Application filed December 14, 1894. Serial No. 531,760. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL KATZIN, a citizen of Russia, residing at Newark, in the county of Essex and State of New Jersey, have
5 invented certain new and useful Improvements in Fire-Escapes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will
10 enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to promote
15 the exit or escape of the inmates from a burning building, and to secure other advantages hereinafter referred to.

The invention consists in the improved fire-escape and in the arrangement and combination of the parts thereof and connected therewith, as herein set forth and finally pointed
20 out in the claims.

Referring to the accompanying drawings, in which similar letters of reference indicate corresponding parts in each of the figures where they occur, Figure 1 represents in elevation a building and fire-escape embodying my improvements connected therewith. Fig. 2 is a detail in side elevation of a portion of the fire-escape, and Fig. 3 is a plan view of the same.
30 Fig. 4 represents in front elevation a building and a modified form of my improved fire-escape connected therewith. Fig. 5 is a detail of a portion of the fire-escape in front elevation. Fig. 6 is a side elevation of the same. Fig. 7 is a detail in section taken through line
35 x of Fig. 5; and Fig. 8 is a cross-sectional view, on an enlarged scale, of the construction shown in Figs. 1, 2, and 3.

40 In carrying out my invention I construct upon the wall of a building balconies or platforms A, preferably just below a window, so as to be within easy reach of the inmates of said building. To one or more sides of said
45 balconies are connected slideways B, extending from the upper balconies downward at an angle in the direction of the lower balconies, as shown in Fig. 1; or box-shaped guide-rails B' may be used, extending from one balcony
50 downward to another, as shown in Figs. 4, 5, and 6. Said slideways B are preferably made of sheet-iron or other fire-proof material and

have their longitudinal edges bent over, as at b , in order to receive corresponding lips or flanges c of carriers C. Said carriers are
55 box-shaped and have secured thereto seats D and steps d , extending therefrom outward in a substantially-horizontal direction. The sides C' of said carriers may be cut out, so as to look more ornamental, or be plain, as in
60 Fig. 2, in order to better protect inmates from fire while sliding down. The upper edge of said sides C' may be formed into a hand-rail to facilitate the descent upon the steps d . The central portion of said slideway B is
65 forced outward, forming a chamber for a spring E, Figs. 1, 2, and 3, the lower end of which is firmly secured to the lower extremity of the carrier C and the upper end to the top end of said slideway B or the adjacent
70 balcony. The spring E is calculated to overbalance a little the carrier C. A weight might answer the same purpose. A projection e on the side C' will limit the downward movement of said carriers C by abutting against
75 a stopper f on the slideway B.

In Figs. 4, 5, 6, and 7 a modification of my improved fire-escape is shown wherein I use the above-mentioned trough-shaped slideways B, extending from the upper to the
80 lower balconies. Two carriers G, connected with each other by a chain H, which runs over a pulley I, which is secured to the bottom of the balcony A, may serve as equivalents for carriers C and spring E. Said carriers
85 G are provided with flanges g , which work in grooves h , formed by the sides of the slideways B', which are inwardly turned downward. Seats are also attached to said carriers G. A brake device L, operated by a
90 person sliding down in one of said carriers, will serve to control the movement of the latter, and a spring or gravity-actuated hook n , engaging automatically in an aperture m in said carrier G, will hold the carrier in position and
95 prevent the latter from sliding down against the will of occupants.

The operation of the device is as follows: The inmates of a burning building will reach the balconies A through the windows and
100 step out upon a carrier C or G, as the case may be. Said carriers will slide downward under the weight of the occupants and land the latter on a lower balcony, from which

other carriers will be used until said persons arrive safely on the ground.

In one of my specific constructions shown in the accompanying drawings the carriers will, as soon as left by the occupants when arriving on a lower balcony, be brought up again to their initial position automatically by the spring E to receive other inmates of the building, while in the other construction one of the carriers G is drawn up by the chain H while the other is going down under the weight of occupants. The hook *n* will automatically engage with the ascending carrier and hold the latter up until disengaged from the hook by new occupants.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

1. In a fire escape, the combination of balconies arranged at the several stories; slideways attached thereto and extending from one balcony to another; carriers adapted to slide up and down in said slideways; seats and steps secured to said carriers and projecting therefrom outward in a substantially

horizontal direction; a spring attached at one end to said carriers and at the other end to the slideways or adjacent balconies, said carriers being forced down under the weight of the occupants against the resiliency of said spring and brought up again in their initial position to receive new occupants, by said spring E, substantially as and for the purposes set forth.

2. In a fire escape, the combination, with balconies, of slideways secured thereto, the central portion of each of which is forced out whereby a longitudinal trough-like chamber is formed, a carrier in each slideway, provided with steps or seats and a spring within the chamber secured to the slideway and to the carrier, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of December, 1894.

SAMUEL KATZIN.

Witnesses:

OLIVER DRAKE,
LOUISE BROWNE.