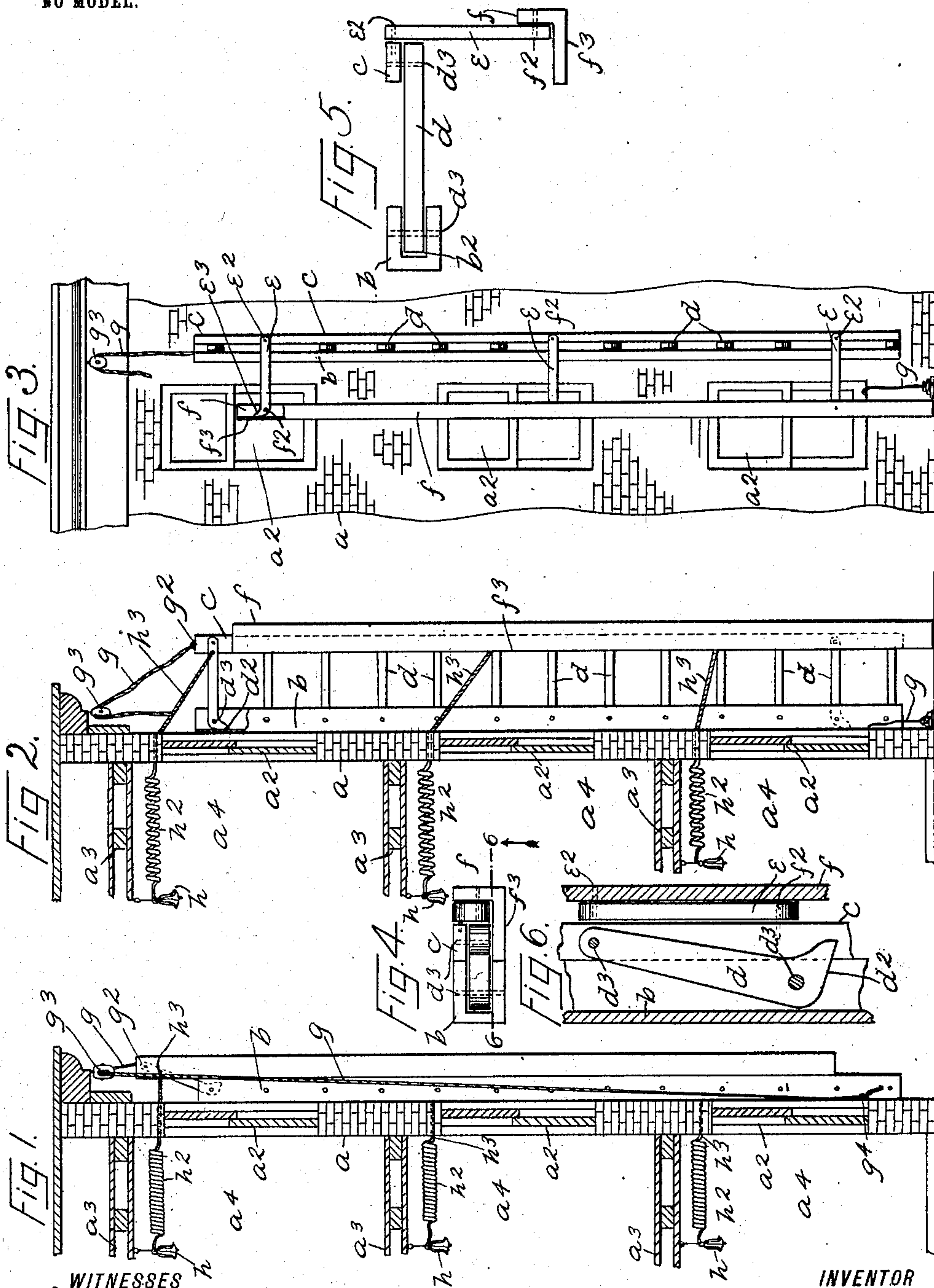


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H. BRACKLO.  
FIRE ESCAPE AND LADDER.  
APPLICATION FILED APR. 9, 1902.

NO MODEL.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## FIRE-ESCAPE AND LADDER.

SPECIFICATION forming part of Letters Patent No. 719,990, dated February 10, 1903.

Application filed April 9, 1902. Serial No. 101,984. (No model.)

*To all whom it may concern:*

Be it known that I, HERMANN BRACKLO, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fire-Escapes and Ladders, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved combination fire-escape and ladder which may be used either as a ladder or fire-escape whenever desired and which may be supported in connection with a building and compactly folded together when not in use and by means of which an alarm may be sounded on the various floors of a building in case of fire.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same reference characters in each of the views, and in which—

Figure 1 is a sectional side elevation of one wall of a building provided with my improved combination fire-escape and ladder; Fig. 2, a similar view showing the parts in position for use; Fig. 3, a front view of the parts as shown in Fig. 2; Fig. 4, a plan view or end view of my improved combination ladder and fire-escape detached from a building and showing the parts folded together; Fig. 5, a similar view showing the parts extended for use; Fig. 6, a partial section on the line 6 6 of Fig. 4.

In the drawings forming part of this specification I have shown at *a* one of the walls of a building, in which are placed windows *a*<sup>2</sup>, and this building is provided with separate floors *a*<sup>3</sup> and corresponding ceilings, whereby separate compartments *a*<sup>4</sup> are formed, and in the practice of my invention I provide a combination ladder and fire-escape comprising two main side bars or parts *b* and *c*, the part *b* being adapted to be secured vertically to the wall of the building in any desired manner, and said part is preferably provided with a longitudinal groove *b*<sup>2</sup>, which opens outwardly and in which the rungs *d* are pivoted

at one end, the opposite end thereof being pivoted to the part *c*.

The ends of the rungs *d* in the part *b* are provided with cam-heads or downwardly-directed portions *d*<sup>2</sup>, and the connection thereof with the part *b* is made by strong pivot-pins *d*<sup>3</sup>, the connection of said rungs with the part *c* being made by similar pivot-pins. As thus constructed the part *c* may be folded upwardly, as shown in Figs. 1 and 6, and rest closely adjacent to or against one side of the part *b*, or the said part *c* may be lowered into the position shown in Fig. 2, in which position the rungs *d* are held horizontally, as shown in said figure. The part *c* is also provided with rungs *e*, which are pivoted thereto at *e*<sup>2</sup> and which are pivotally connected with a supplemental bar or part *f* at *f*<sup>2</sup>, which is provided with an inwardly-directed flange *f*<sup>3</sup>, and the rungs *e* at the ends thereof which are connected with the bar or part *f* are provided with cam-heads or upwardly-directed projections *e*<sup>3</sup>, and by means of this construction the part or bar *f* may also be lowered, so that the rungs *e* will be in a horizontal position, as shown in Figs. 2, 3, and 5.

The bar *c* when raised into the position shown in Fig. 1 may be held therein by a cord *g*, connected with the upper end thereof at *g*<sup>2</sup> and passed around a pulley *g*<sup>3</sup> and extended downwardly adjacent to the windows *a*<sup>2</sup> and secured at *g*<sup>4</sup> or at any other desired point, and when the necessity arises for using the fire-escape or ladder this cord may be cut at either of the windows, and the part *c* will drop into the position shown in Figs. 2 and 3, and the device may then be used as a ladder, and any one at either of the windows may descend to the ground thereon. When the part *c* is in the position shown in Figs. 3, 4, and 5, the part or bar *f* may be pulled outwardly and dropped into the position shown in Figs. 3 and 5, and the said bar or part *f* and the flange *f*<sup>3</sup> thereof will operate as a guard-rail and may be used in ascending or descending the ladder. I also preferably suspend at any desired point within the compartment *a*<sup>4</sup> a bell or other alarm device *h* and connect therewith a spiral spring *h*<sup>2</sup>, with each of which is connected a cord *h*<sup>3</sup>, which is passed through the window-frame, preferably at the top thereof, and con-



nected with the bar or part *c*, and when the part  
*c* and its attachments are lowered into the  
 position shown in Figs. 2, 3, and 5 the bell or  
 other alarm device *h* will be operated, and  
 5 this gives notice to the occupant or occupants  
 of the compartment of a fire or other danger,  
 and said occupant or occupants may at once  
 descend to the ground, as will be readily un-  
 derstood. It will also be understood that the  
 10 cord *g* may be cut at any point, and any occu-  
 pant of any of the compartments may thus be  
 able to give an alarm to the occupants of the  
 other compartments, and when the part *c* is  
 again raised the spring *h*<sup>2</sup> will contract and  
 15 the slack of the cords *h*<sup>3</sup> will be drawn in, as  
 shown in Fig. 1.

This device is simple in construction and  
 operation and perfectly adapted to accom-  
 plish the result for which it is intended, and  
 20 changes in and modification of the construc-  
 tion described may be made without depart-  
 ing from the spirit of my invention or sacri-  
 ficing its advantages.

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

1. A combination ladder and fire-escape  
 composed of two parts connected by rungs,  
 one of said parts being provided with a lon-  
 30 gitudinal groove in which the rungs are piv-  
 oted and said rungs being provided with cam-  
 heads adapted to bear against the back of

said groove, and said rungs being also pivot-  
 ally connected with the other part, and said  
 last-named part being also provided with piv- 35  
 oted rungs which are pivotally connected with  
 a supplemental part or bar having an in-  
 wardly-directed flange and the ends of said  
 rungs at their pivotal connection with said  
 last-named part or bar being also provided 40  
 with cam-heads adapted to bear on said flange,  
 substantially as shown and described.

2. A combination ladder and fire-escape  
 comprising main and supplemental parts or  
 bars, one of which is provided with a longitu- 45  
 dinal groove, rungs pivoted at one end of said  
 groove and provided with cam-heads adapted  
 to bear on the back thereof, said rungs be-  
 ing also pivoted to the supplemental part or  
 bar, and another part or bar connected with 50  
 the supplemental part or bar by means of  
 rungs which are pivotally connected thereto,  
 said other part or bar being provided with a  
 flange and said rungs with cam-heads adapted  
 to bear thereon, substantially as shown and 55  
 described.

In testimony that I claim the foregoing as  
 my invention I have signed my name, in pres-  
 ence of the subscribing witnesses, this 8th day  
 of April, 1902.

HERMANN BRACKLO.

Witnesses:

F. A. STEWART,  
 C. E. MULREANY.