



# UNITED STATES PATENT OFFICE.

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## APPARATUS FOR OPENING DOORS.

SPECIFICATION forming part of Letters Patent No. 344,338, dated June 29, 1886.

Application filed April 17, 1886. Serial No. 199,233. (No model.)

*To all whom it may concern:*

Be it known that I, ELI A. BABCOCK, a citizen of the United States, residing at Cambridge City, in the county of Wayne and State of Indiana, have invented a new and useful Improvement in Apparatus for Opening Doors, of which the following is a specification.

My invention relates to an improvement in apparatus for opening doors; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my apparatus applied to a pair of folding doors. Fig. 2 is a similar view showing the apparatus moved in position for releasing the doors.

A represents a pair of folding doors, which are hinged at their outer edges to the sides of the door-frame in the usual manner. At the top of the door-frame is provided a suitable keeper, B, and the door-sill is provided with notches C.

D represents a lever, which is fulcrumed, as at *d*, to one side of one of the doors near the free edge thereof. To one end of this lever is connected a vertically-movable downwardly-extending bolt, E, which is adapted to engage one of the openings C, and at a suitable distance from the fulcrum *d*, [toward the other end of the lever D, is connected an upwardly-extending vertical bolt, F, which passes through a guide, G, that is secured to the door, and is adapted to engage an opening in the keeper B. One end of the lever D projects slightly beyond the door, and extends for a slight distance on one side of the opposite door. To the said latter door is fulcrumed a lever, H, one end of which bears upon the free end of the lever D. Connected to the said lever H, on opposite sides of its fulcrum *h*, is a downwardly-extending vertical bolt, I, which is adapted to engage one of the openings or recesses C in the sill, and an upwardly-projecting vertical bolt, K, which passes through a guide, L, that is secured to the door, and is adapted to engage an opening in the keeper B.

M represents a pair of sheaves, which are

suspended from opposite sides of the door-frame, or to any other suitable support. Cords N pass over the said sheaves. One end of each cord is attached to one of the doors, and to the depending end of each cord is attached a weight, O.

P represents a sheave or guide, which is attached to the door A. A cord, R, passes over the said sheave, and one end of the said cord is attached to the lever H, and the other end of the cord extends to any suitable point.

In order to open the doors it is only necessary to pull upon the cord R, which causes the lever H to move so as to release the bolts I and K, and also trip the lever D simultaneously, and cause it to release the bolts E and F, thereby unfastening the doors. The weights which are attached to the doors then cause them to swing open, as will be very readily understood.

Springs for opening the doors may be substituted, if preferred, in lieu of the weights.

This apparatus may be also attached to a single door.

An apparatus thus constructed is cheap and simple, and enables the doors to be released and thrown open instantaneously, which will be found very advantageous in theaters and other public places in the event of an alarm of fire.

Having thus described my invention, I claim—

1. The combination, with the folding doors, of the levers fulcrumed thereto and engaging with each other, and the bolts connected to the said levers for locking the doors, substantially as described.

2. The combination, with the folding doors, of the levers fulcrumed thereto and engaging with each other, the bolts connected to the levers for locking the doors, the cord attached to one of the levers for tripping the same, and means for opening the doors, substantially as described.

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

ELI A. BABCOCK.

Witnesses:

S. J. MILLER,  
JOHN L. RICHEY.