J. S. BALDWIN.

ELEVATOR.

No. 76,693. Patented Apr. 14, 1868.

Fig: 1.

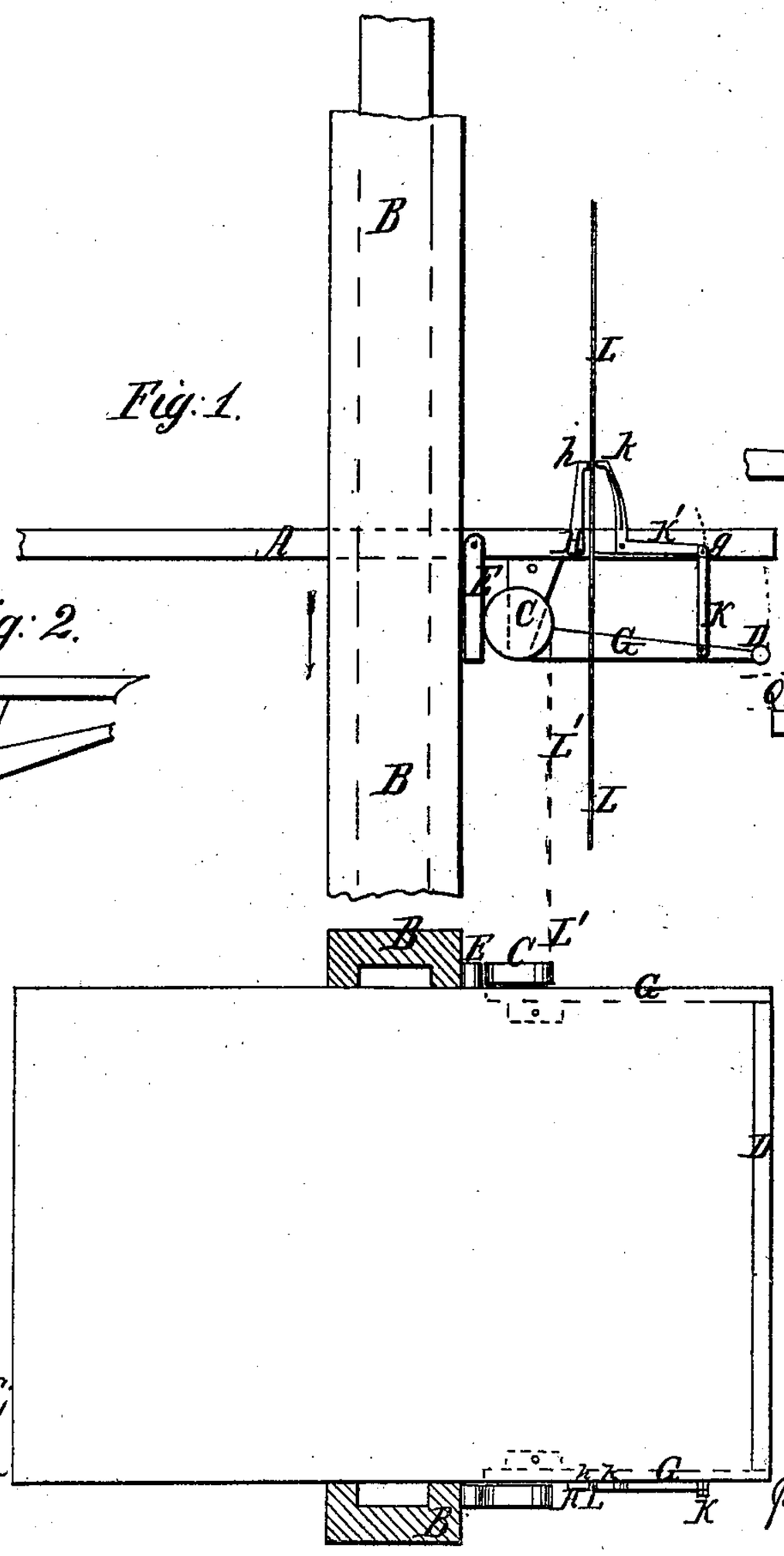


Fig: 2.

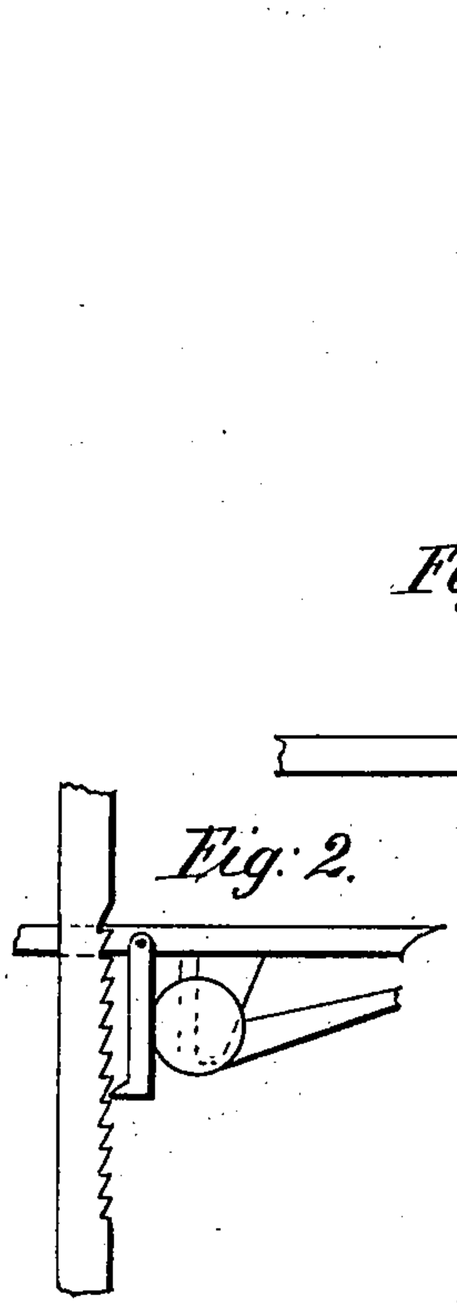
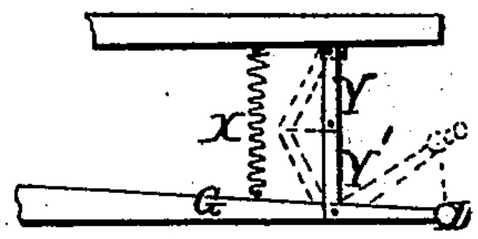
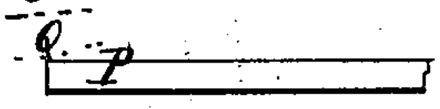


Fig: 3.





Witnesses;
C. S. Baldwin
J. A. Baldwin

Inventor;
James S Baldwin

United States Patent Office.

JAMES S. BALDWIN, OF NEWARK, NEW JERSEY.

Letters Patent No. 76,693. *dated April* 14, 1868.

IMPROVED ELEVATOR.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JAMES S. BALDWIN, of Newark, in the county of Essex, and State of New Jersey, have invented a new and improved Method of Constructing Elevators used for transporting passengers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The object of my invention is the prevention of those accidents which sometimes occur through the interposition of some part of the human body between the edge of the elevator, while in motion, and the edge of the landings or stationary platforms on the several floors. For this purpose, I apply to the lower side of said edges a yielding bar, or its equivalent, which, being the first part to come in contact with the interposed body, will be pressed upward, and, this motion being properly transmitted and applied to brakes and other suitable stop-gear, the elevator will be checked in its ascent or descent, as the case may be.

There are several ways in which the motion imparted to the yielding bar may be transmitted and applied. I shall proceed to describe that which I prefer to use in most cases.

Let A, Figure I, be the platform of the elevator, moving between the slides B B B B. P is the edge of the landing, and Q the outline of an interposed body, which, coming in contact with the yielding bar D, as above mentioned, will move it, together with the lever G and eccentric C, the latter, in turn, pressing the brake E firmly against the fixed slide B. If necessary, the brake E can either be replaced or assisted by a dog, engaging a rack, as in Figure II.

The connecting-rod K, attached to G, and also to the end, *g*, of the bent lever K′ *k*, will, upon the slightest upward motion of D, cause the rod or cord L L to be firmly grasped between the end, *k*, of said lever and the end, *h*, of the fixed arm H *h*, and the cord or rod will then move as if it were a part of the elevator. The functions of this rod or cord are the same as those of a similar part of the elevators at present in use. It shuts off the steam, or otherwise disconnects the motive-power, and, if necessary, applies a brake or similar check-motion to the drum on which the rope is wound, or to whatever machinery may be used instead of said drum; but, instead of being moved by the hand of the attendant, by my plan it is operated automatically by the action of an interposed body on D.

In some cases, to insure speedy action, it is necessary to employ a reserve force, which, being released or called into action by a slight pressure on D, will cause the movement of the several parts, as hereinbefore described, to be made at once. I regard a spring, as represented by X in Figure III, as the best example of such a reserve force, although there are several equivalent methods that may be employed. The said spring tends to draw G forcibly upward; but this motion is restrained by the jointed brace Y Y′, so long as its two portions are in line with each other; but, when this alignment is disturbed by a slight movement of the yielding bar D, attached to the bent prolongation of Y′, the brace yields, taking the position shown in outline, and G moves, together with its attached parts, as in Fig. I.

The application of the several parts hereinbefore described to the several landings is made in the same manner, except that the cord or rod L L is directly attached to G or C, as shown by the dotted outline L′ L′, Fig. I, and B is replaced by some portion of the elevator occupying the same relative position, or by some portion of the machinery occupying the same relative position, but located at a convenient distance from the elevator itself.

What I claim as my invention, and desire to secure by Letters Patent, is—

The checking or stopping of the elevator by the pressure of an interposed body upon the bar D, or its equivalent, said pressure being transmitted and applied by the means and substantially in the manner described.

JAMES S. BALDWIN.

Witnesses:

S. BALDWIN,

S. A. BALDWIN.