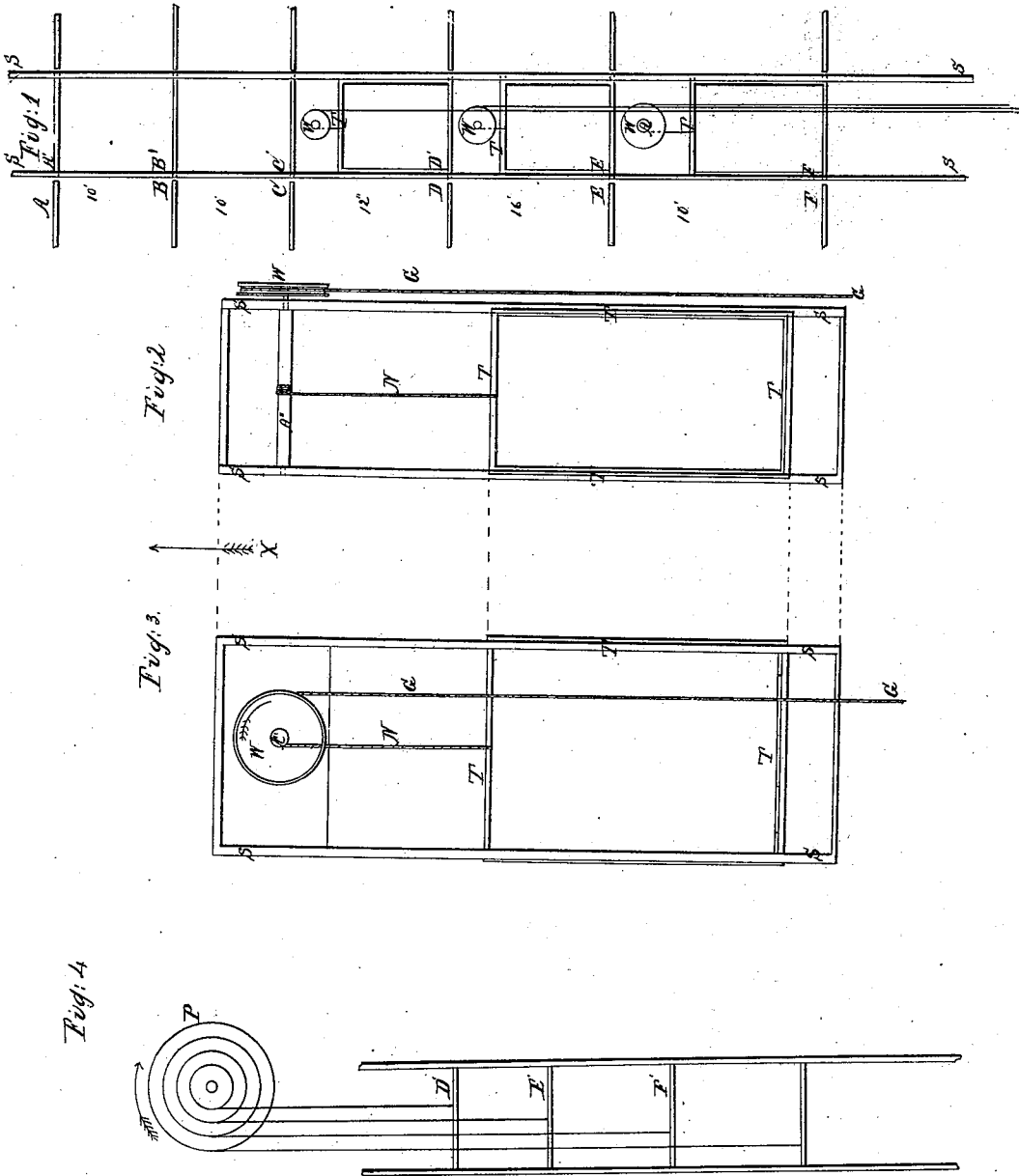


J. S. BALDWIN.
ELEVATOR FOR TRANSPORTING PASSENGERS.

No. 76,694.

Patented Apr. 14, 1868.



Witnesses
J. S. Baldwin
J. A. Baldwin

Inventor
James S. Baldwin

United States Patent Office.

JAMES S. BALDWIN, OF NEWARK, NEW JERSEY.

Letters Patent No. 76,694, dated April 14, 1868.

IMPROVEMENT IN ELEVATORS FOR TRANSPORTING PASSENGERS.

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 elevator to which my improved method of construction refers, is one which has been in use for many years in a partially-developed shape. It is described in Overman's Metallurgy, fifth edition, page 98, and in the Mechanics' Magazine for March or April, 1867, (the exact page could not be ascertained at the time of writing; the quotation is from memory, no copy of the magazine being accessible,) as well as in other works of a similar character. As described in said works, and as now operated, the said machine consists of two sets of platforms, arranged at equal distances from each other, vertically. One set has a constant reciprocating motion equal in amplitude to the distance between two platforms; the other set is either stationary or has a similar motion. Now, in adapting this elevator to buildings of the ordinary description, which I am enabled to do by improvements not herein described, I find it necessary to give the platforms a differential movement adapted to the varying height of the different stories.

Figure I represents the six floors of a building, A B C D E F, at varying distances above each other, as shown by the figures, and A' B' C' D' E' F' are the corresponding floors or platforms of the elevator. S S S S, in the several figures, represents the framework of the same. Now, if this framework is raised and lowered, by appropriate machinery, a distance corresponding to that between any two floors, then, owing to the variation in the distances between the several floors, it must either exceed or fall short of said distances, as the case may be. To remedy this, I give the main frame a movement corresponding to the interval which occurs most frequently, as, in the present case, ten feet between A, B, and C; and to enable the other floors, D' E' F', to gain the distance which they would otherwise fall short, I mount each of them in a frame, T T T T, Figures I, II, and III, capable of receiving an independent motion inside the main frame S S S S, and by the use of the windlass W A'', shown in front and side elevation in Figs. II and III, supply the deficiency in their movement. This windlass is provided with the cord G G, firmly fastened below, and the cord N wound round the axle A'', and fastened to the movable interior frame T T T T. Now, if the main frame receives an upward movement, as indicated by the arrow X, the cord G G, being fastened at the lower end, must unwind from and impart a rotary motion to W, winding up the cord N on the axle and drawing up the frame T and its floor, thus giving the requisite addition to the motion of the main frame. When the main frame is lowered, the weight of T T T T will cause N to unwind and G G to be wound in again.

If the floors D' E' F', Figure IV, are capable of an independent motion, and are suspended from a cone-pulley overhead, their motions will vary with the diameters of said pulley, and by the proper construction of said pulley, a reciprocating rotary motion imparted to it will be followed by a reciprocating vertical motion of the suspended platforms. The interior frames T T T are not shown in Figure IV, their use being presupposed.

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

The elevator for buildings having floors of varying height, constructed substantially in the manner set forth.

JAMES S. BALDWIN.

Witnesses:

C. S. BALDWIN,

S. A. BALDWIN.