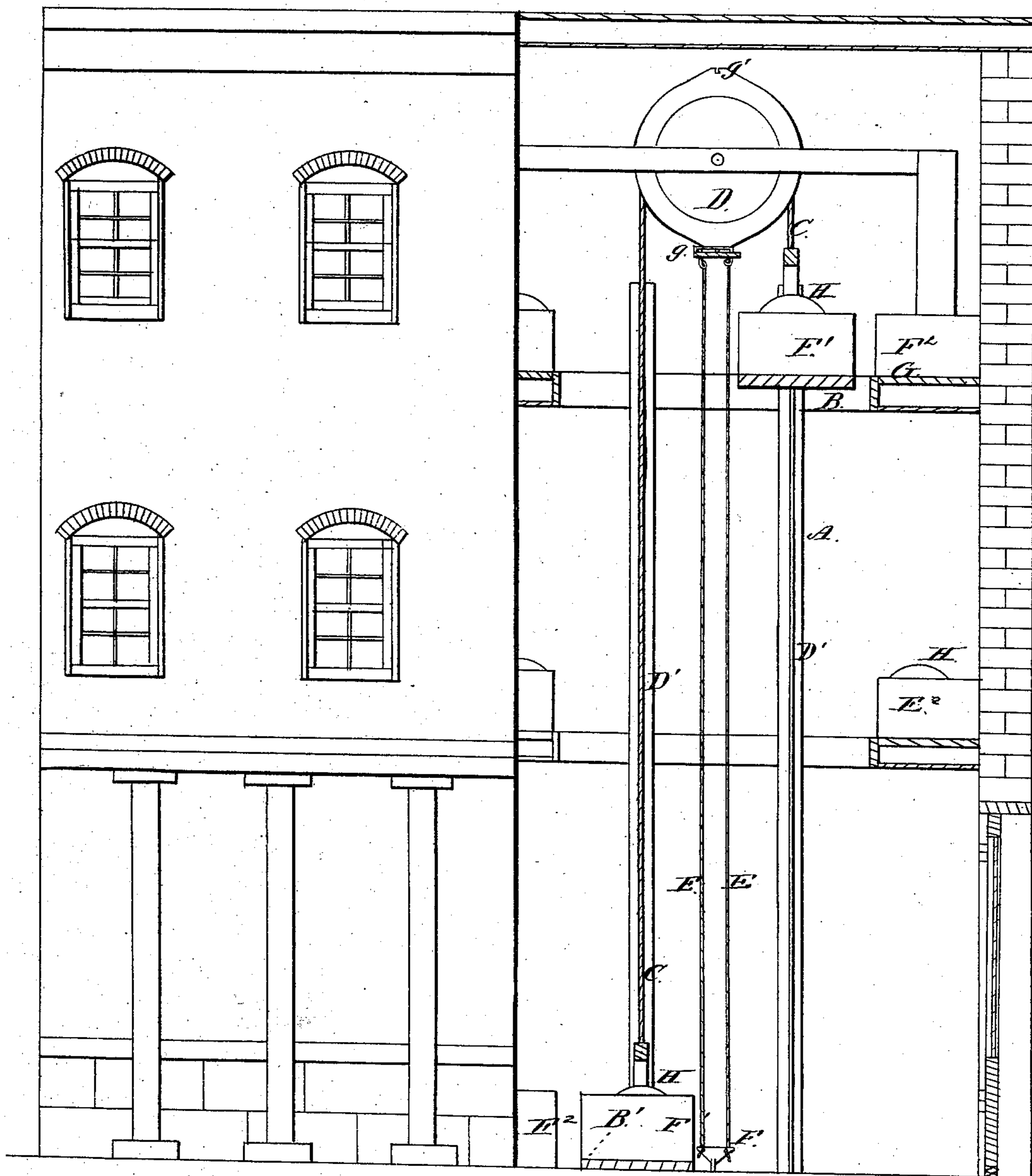


# H. H. BLAKE. Elevators.

No. 156,329.

Patented Oct. 27, 1874.



Witnesses

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# UNITED STATES PATENT OFFICE.

HENRY H. BLAKE, OF SEWICKLY, PENNSYLVANIA.

## IMPROVEMENT IN ELEVATORS.

Specification forming part of Letters Patent No. 156,329, dated October 27, 1874; application filed September 23, 1874.

*To all whom it may concern:*

Be it known that I, H. H. BLAKE, of Sewickly, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Elevators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings which form part of this specification, in which is shown a vertical central section of my improvement.

This invention has relation to a passenger-elevator provided with two moving platforms so arranged and connected that the weight upon one platform shall counterbalance or balance the weight of the other, and thus the ascent of one be influenced or effected through the descent of the other, and vice versa.

The novelty of this invention consists in, first, the combination, with an elevator, of rolling weights to counterbalance the load; and, secondly, the combination, with the elevator-platforms and with the building-floors, of coinciding boxes for the reception and disposal of the weights, all as hereinafter fully described.

Referring to the accompanying drawings, A designates the frame-work of a passenger-elevator, having the two platforms B B' connected together and sustained by a cord or chain, C, passing over and around a grooved drum or wheel, D, located at the top of the elevator. D' D' are the platform-guides, and E E the propelling-cords, which are connected at their lower ends to a bell-crank or rocking plate, F, and at their upper ends each to a spring-dog, g, engaging with notches g' in the rim of the wheel D. F<sup>1</sup> F<sup>2</sup> designate narrow boxes arranged, respectively, upon the platforms B B' and the floors or landing-places G. These boxes are so disposed that the box of each platform will coincide with each floor-box adjacent thereto as the platforms ascend and descend. The approximate ends of the coinciding boxes are open for the passage of rolling weights H, whose powers are indicated upon

them in any suitable manner, to represent the number of pounds each contains.

The modus operandi of the apparatus is as follows: A sufficient number of weights are transferred to the platforms to cause them to counterbalance each other—say, two hundred pounds upon each. A passenger who wishes to ascend or descend steps upon one of the platforms and rolls therefrom his approximate weight—say, one hundred and fifty pounds. The platforms then contain equal loads, as before, and the passenger may ascend or descend by drawing upon the propelling-cord in the proper direction. Leaving the platform at the end of his journey, the incumbent replaces his approximate weight and leaves the elevator in proper condition for another passenger.

I have described specifically means for the employment of rolling weights, but I regard sliding weights as their substantial equivalents.

I do not claim, broadly, the combination with an elevator of transferable weights, as I am well aware that chains have been used for the purpose of regulating the relative character of the power, weight, and load—as shown, for instance, in Patents Nos. 109,331 and 125,064.

Having described my invention, I claim—

1. The combination, with an elevator, of a rolling weight or weights, for the purpose of regulating the relative weight of the load and power, substantially as described.

2. The elevator-boxes B' B', provided with the boxes F<sup>1</sup> F<sup>1</sup> to receive the rolling weights, in combination with the floors F<sup>2</sup>, provided with similar receptacles, constructed to register with those upon the elevator, as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 29th day of August, 1874.

HENRY H. BLAKE.

Witnesses:

R. A. BALPH,  
CHAS. A. CONNOLLY.