

(No Model.)

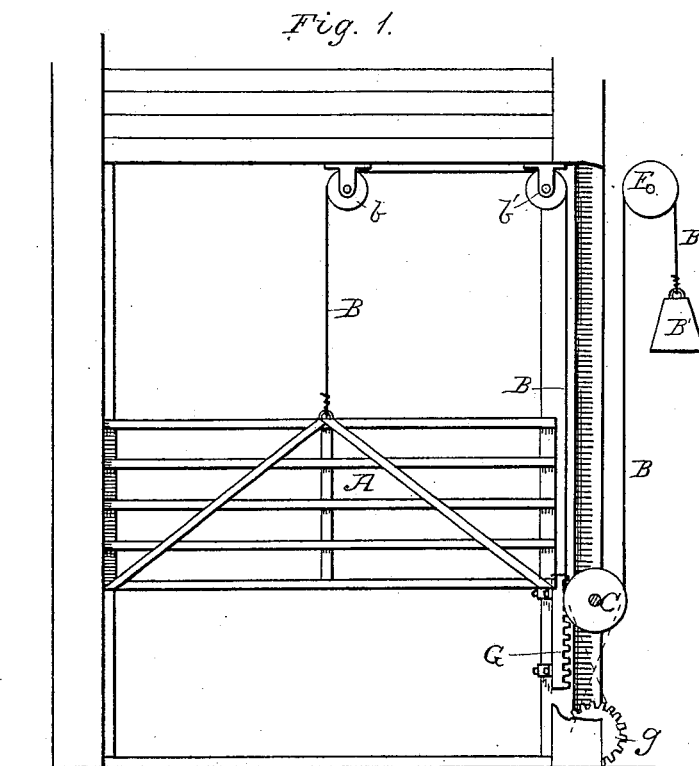
2 Sheets—Sheet 1.

J. F. S. SMITH.

AUTOMATIC GATE FOR ELEVATORS.

No. 265,342.

Patented Oct. 3, 1882.



Witnesses:

*Frank Thompson*  
*S. S. Schoff*

Inventor:

*John F. S. Smith*  
by *Coyne & Co.*  
*Att'y*

(No Model.)

2 Sheets—Sheet 2.

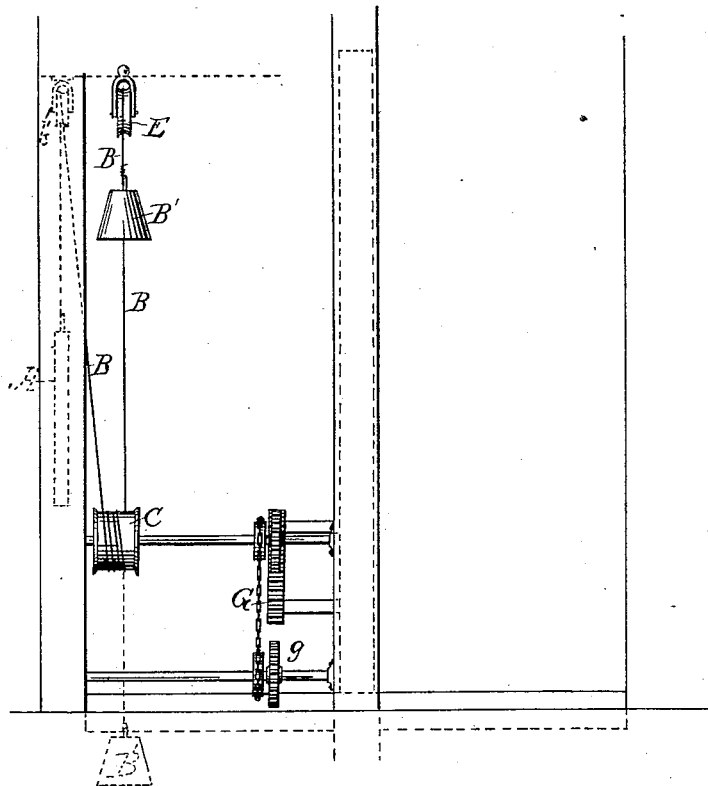
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*Fig. 2.*



Witnesses:

*Frank D. Thompson*  
*S. S. Schoff*

Inventor:

*John F. S. Smith*  
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Attys

# UNITED STATES PATENT OFFICE.

JOHN F. S. SMITH, OF CHICAGO, ILLINOIS.

## AUTOMATIC GATE FOR ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 265,342, dated October 3, 1882.

Application filed April 17, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN F. S. SMITH, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful  
5 Improvements in Automatic Gates for Elevators; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the  
10 same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my invention is to furnish such an improvement to my automatic gate-opener  
15 for elevators, described and claimed in application filed December 6, 1881, and patented July 11, 1882, No. 260,794, as will enable said gate to be so applied and operated that it will not of its own weight drop when the rack is  
20 between or traveling from one pinion to the other. This I accomplish by winding the rope which lifts the gate several times around the drum and connecting to the free end thereof, directly or indirectly a weight sufficiently heavy,  
25 with the aid of the friction of the other machinery, to counterbalance and maintain the gate in a suitable position, all in connection with devices upon the elevator-truck and wire, substantially as described in the following  
30 specification and shown in the drawings, in which—

Figure 1 is a front elevation of an elevator-shaft, showing the relative location of my weight attachment. Fig. 2 is a side view.

35 In the drawings is represented an elevator-gate, A, moving in suitable guides and raised or lowered by the rope B, which, passing over the pulleys *b* and *b'*, is wound several times around the drum C, and has attached to its  
40 free end a weight, as shown by dotted lines in the drawings, or, passing over the pulley E, has attached to the end the weight B'. The latter manner of arranging the weight is preferable, as it avoids cutting through the floor.  
45 The drum C is operated by means of the rack G, attached to the side of the elevator-truck,

which engages alternately with two corresponding pinions, one of which is keyed to the same shaft as said drum, and the other pinion, *g*, is keyed in the same relative position on a similar horizontal shaft below the same, said shafts  
50 being connected by a cross-belt or otherwise, so as to obtain a contrary or reversible movement, as described and claimed in the foregoing application.

55 It will be understood that the elevator-gate is lifted or lowered upon the approach or withdrawal of the elevator-truck by means of the rack engaging alternately with the pinions, and that when the said truck has arrived at a station, either in its upward or downward trip, the rack will be at a point between said pinions. It is while the rack is in this position that the weight of the gate is liable to overcome the friction of the machinery and drop to its first  
60 position. This objectionable feature is what I obviate by attaching the weight in the manner hereinbefore described. I do not, however, wish to be considered as claiming anything embraced in my application of December 6,  
65 1881, and I here disclaim, particularly and generally, any such intention; but

What I do claim as new, and desire to secure by Letters Patent, is—

70 In an automatic gate for elevators, a gate automatically raised or lowered through the medium of a rope wound several times around a drum, said drum being operated upon the approach or withdrawal of the elevator cage or truck by a rack attached to the side of the  
75 same and alternately engaging two pinions arranged and connected in the manner hereinbefore specified, in combination with a weight attached to the free end of said rope, substantially as and for the purpose set forth.  
80

85 In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

JOHN F. S. SMITH.

Witnesses:

S. S. SCHOFF,

FRANK D. THOMASON.