

(No Model.)

2 Sheets—Sheet 1.

M. M. MOORE.
ELEVATOR.

No. 500,344.

Patented June 27, 1893.

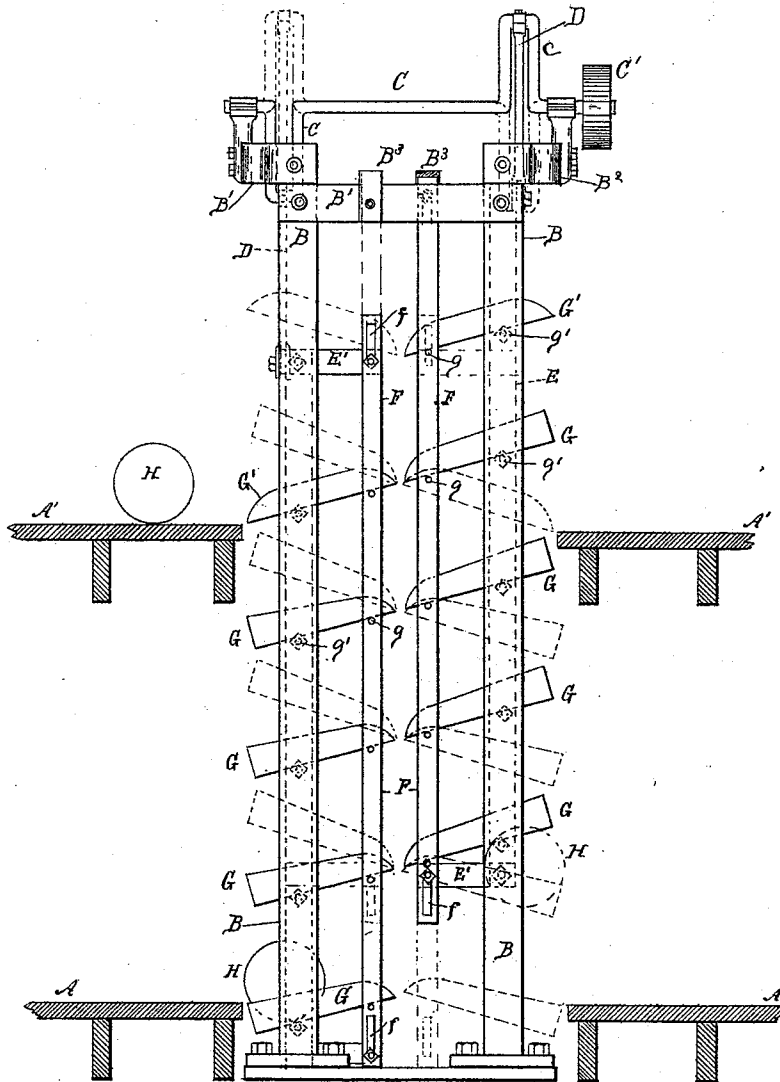


Fig. 1

WITNESSES.

John Hallock
Wm. M. Moore, Jr.

INVENTOR.

Morton M. Moore
by Hallock & Hallock
his atty

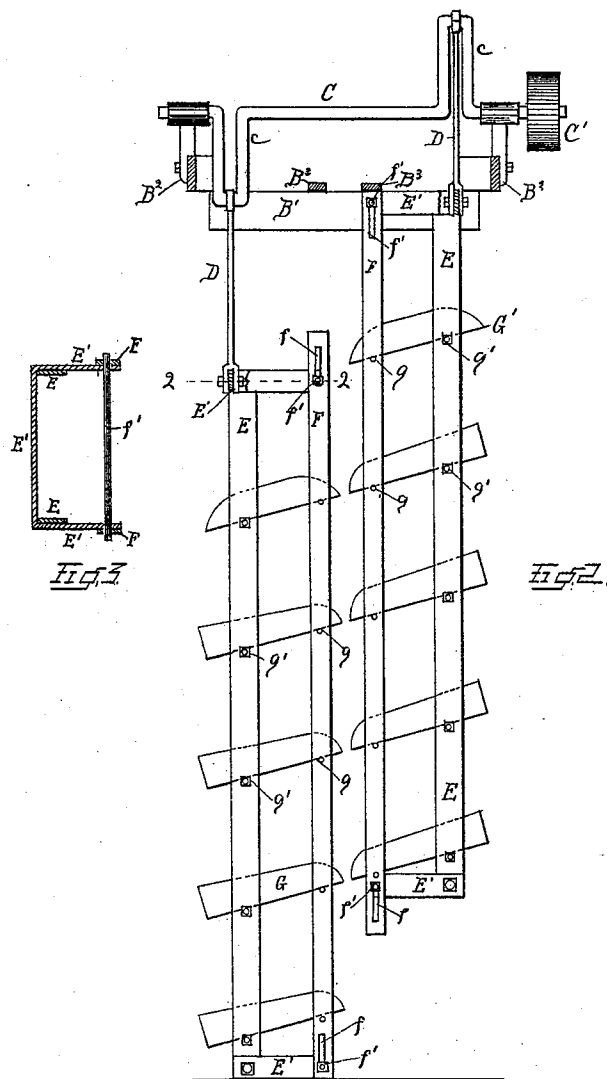
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2 Sheets—Sheet 2.

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ELEVATOR.

No. 500,344.

Patented June 27, 1893.



WITNESSES-

James Hallock
Wm. Markes, Jr.

INVENTOR-

Mortimer M. Moore
by Hallock & Hallock
his Atty

UNITED STATES PATENT OFFICE.

MORTIMER M. MOORE, OF ERIE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
TO JACOB F. WALTHER, OF SAME PLACE.

ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 500,344, dated June 27, 1893.

Application filed June 15, 1892. Serial No. 436,765. (No model.)

To all whom it may concern:

Be it known that I, MORTIMER M. MOORE, a citizen of the United States, residing at Erie, in the county of Erie 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 appertains to make and use the same.

This invention relates to hoisting or elevating apparatus and consists in certain improvements in the construction thereof as will be hereinafter fully set forth and pointed out in the claim.

The invention is illustrated in the accompanying drawings as follows:

Figure 1, is a side elevation of the apparatus and its supporting frame work; changed positions of parts, as in operation, being shown by dotted lines. Fig. 2, is a side elevation of the movable parts, the fixed parts or frame work not being all shown. Fig. 3 is a horizontal section on the line 2—2 in Fig. 2.

In the drawings A, represents the lower floor or deck, and A', the upper.

B, B', B² and B³ mark the fixed frame work; C, the actuating crank-shaft; *c c* the cranks of said shaft; C', the driving pulley; D, D, the pitmen connecting the cranks to the reciprocating frames; E, the vertical pieces of the reciprocating frames; E' the horizontal end pieces of the reciprocating frames; F, the shifting bars which tilt the buckets or platforms; G, and G', the tilting platforms.

The fixed frame work consists of four vertical posts B, horizontal pieces, B' and B² connecting said posts, and two cross plates, B³. Two vertically reciprocating frames on opposite sides of the frame B, B', B² are guided on the posts B, and are composed of the vertical bars E, and horizontal end pieces E', which connect the bars E, and extend laterally therefrom toward the middle of the frame work.

Connecting the said inward extending arms are shifting bars F, having slots *f* at their ends, which embrace cross-rods *f'*. The platforms G and G' are pivoted at *g'* to the vertical bars E, and at *g* to the shifting bars F. The platforms G, are closed at their outer

ends and open at their inner ends, and the platforms G' are open at both ends and both have side pieces.

The cranks *c* of the shaft C stand in opposition, and the pitman of each connects with the end piece E' of the frame below it, and as the crank-shaft is revolved the two frames are reciprocated in opposite directions. As a frame moves up and is about at its upward limit, its shifting bar F, contacts with the cross bar B³, and is stopped while the frame goes on to the limit, and carries the outward ends of the platforms up with it while the inward ends are held by the shifting bar, and thus the platforms are tilted, and when the frame goes down the bar F, contacts with the bottom just before the frame reaches its lower limit and the platforms are again tilted.

In Fig. 1 the platforms on the right are shown in full lines as when just tilted by the upward movement of that frame, and those on the left are shown as when just tilted by the downward movement of that frame, and all are shown by dotted lines as when just tilted by an opposite movement. As the platforms of each frame are tilted at the finish of each upward and downward movement, and as the frames carrying said platforms move in exactly opposite order, it follows that when the rear ends of the platforms on one frame are being raised, those on the opposite ends are being depressed, and the inner ends of said platforms stand contiguous so as to cause the two opposite platforms to form one continuous platform of coincident inclination and hence any object that is capable of rolling or sliding easily, that may be on the upper end of the two adjacent like-inclined platforms, will move down to the lower end, and so will be transferred from one platform to the other.

In Fig. 1, at the bottom, H, represents a barrel that has just been placed upon the lowest platform G, on the frame on the left; on the right, in dotted lines, this barrel H, is shown as just transferred to the second platform from the bottom of the frame on the right, and again, on the left, on the floor A', the barrel H, is shown as just discharged from the elevator. Barrels or other objects may

be placed on the platforms of each frame as they come even with the floor A, and they will be carried up and discharged on the floor A', directly above the point where they are
5 loaded on.

I am aware that two sets of vertically and alternately reciprocating platforms have been used for elevating workmen out of mines by the men transferring themselves alternately
10 from one set of platforms to the other, and I therefore do not intend to claim broadly the use of two parallel acting, alternately-reciprocating sets of platforms as a means for elevating objects.

What I claim as new is—

In an elevator, the combination of two vertically and parallel-acting frames that reciprocate alternately, platforms G and G' pivoted to said frames at g' ; shifting bars F, pivoted to said platforms at g , and acting to change
20 the inclination of said platforms at the end of each vertical movement of said frames.

In testimony whereof I affix my signature in presence of two witnesses.

MORTIMER M. MOORE.

Witnesses:

JNO. K. HALLOCK,
WM. P. HAYES.