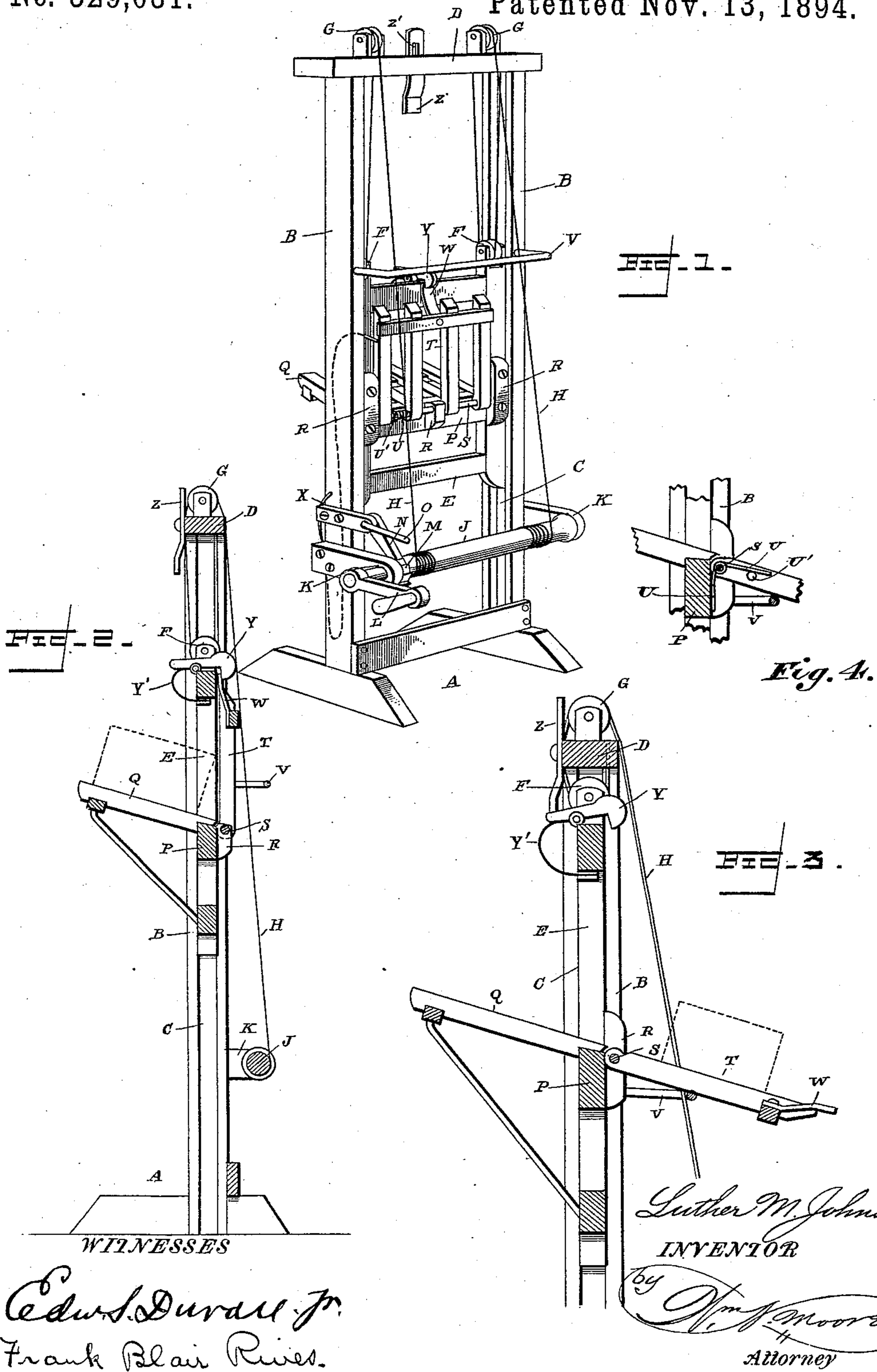


(No Model.)

L. M. JOHNSON.
ELEVATOR.

No. 529,031.

Patented Nov. 13, 1894.



UNITED STATES PATENT OFFICE.

LUTHER M. JOHNSON, OF PAULDING, OHIO, ASSIGNOR OF ONE-HALF TO
JOHN E. DELL, OF SAME PLACE.

ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 529,031, dated November 13, 1894.

Application filed June 4, 1894. Serial No. 513,402. (No model.)

To all whom it may concern:

Be it known that I, LUTHER M. JOHNSON, a citizen of the United States of America, residing at Paulding, in the county of Paulding and State of Ohio, have invented certain new and useful Improvements in Elevators, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in elevators, which while it may be used for any purpose for which it would operate, is specially constructed for elevating cakes or blocks of ice and depositing them in refrigerators or cold storage receptacles, and the object of my invention is the provision of a portable elevator which will be easy to operate and which will quickly elevate and deliver or deposit the blocks of ice and which will be of the simplest, cheapest and most durable construction and thus produce a thoroughly practical elevator.

The invention consists of an ice elevator embodying novel features of construction and combination of parts substantially as disclosed herein.

Figure 1 represents a perspective view of my improved elevator. Fig. 2 represents a vertical sectional view of the elevator with the parts in the position they assume before delivering the block of ice, and Fig. 3 represents a similar view with the parts in the position they occupy when the block of ice is being delivered or deposited. Fig. 4 represents a detail view to particularly show the coiled spring and its relation to adjacent parts.

In the drawings, the letter A designates the base of my elevator from which rise the vertical standards B, having on the inner faces the grooves, channels or guide ways C, and the top connecting or cross piece D, the whole structure forming a strong and durable frame work but easily transported from place to place when desired.

Fitting in the guide ways is the rectangular open traveling frame E, carrying at the top the grooved pulleys F, which are in line with the grooved pulleys G, secured or mounted in bearings on the top piece of the frame

and over these grooved pulleys pass the cords, ropes or chains H, having their lower ends connected to and adapted to be wound upon the windlass or drum J, mounted in bearings K secured to the frame, and on the drum shaft is a crank L, for rotating the windlass to cause the traveling frame to be moved up or down in the guide ways, and to hold the traveling frame at any desired point I place on the drum the ratchet wheel M, with which engages the dog or detent N, mounted in a suitable bearing on the frame and having the lever O, for engaging or disengaging the detent as circumstances require.

In the traveling frame is secured a cross-piece P, to which is rigidly secured the inclined ice supporting platform Q, which is suitably braced and retained against all strain, and adjacent to the cross piece is arranged bearings R, in which is secured a rod S, on which is mounted the tilting platform T, and around the rod is coiled a spring U, which has the free ends bearing against the cross piece and a stud or lug U', secured to the tilting platform, and the spring acts to throw the platform down or tilt the same to discharge the ice, and the limiting bale V, is provided to limit the movement of the platform when it descends to discharge the ice.

From this construction it will be seen that the coil of the spring is arranged on the rod and one end is held rigid against the cross-piece and the other end which is free exerts its tension downward against the stud U', and pushes the tilting platform down when released.

To the free edge of the tilting platform is secured the keeper plate W, adapted when the platform is lifted, either by raising it up with the hand or by using the lifting cord X, to engage the latch Y, having the spring Y', for controlling or holding the latch and to hold the platform in the position shown in Fig. 2, and when the platform is raised, by turning the drum through the medium of the cords connected with the frame and drum, the end of the pivoted latch Y, is struck against the stop Z, which is secured to the top piece of the frame, and the stop disengages the latch from the keeper on the tilt-

ing platform, and the platform descends, and the block of ice from the rigid inclined platform slides upon the tilting platform and from thence to the ice box, as is evident.

5 The stop plate Z, is provided with a slot Z' by means of which the plate can be adjusted to cause it to engage the latch at different adjustments.

I claim—

10 1. In an elevator, the combination of the vertical frame having the guideways, the frame fitting in said guideways, the rigid inclined platform secured to the frame, the rod secured in the frame adjacent to the rigid
15 platform, the tilting platform hinged to said rod, the spring coiled around the rod and having one end bearing against the frame and the other end bearing against the tilting platform, the keeper secured to the tilting
20 platform, the latch for holding the keeper, the stop for engaging the latch to release the

same and allow the platform to fall and mechanism for moving the frame.

2. In an elevator, the combination of a base, the vertical uprights rising therefrom and 25 having guideways, the drum mounted in the uprights and having the ratchet, the dog engaging the ratchet and having a handle, the cords on the drum, the traveling frame connected to the cords, the rigid and hinged 30 platforms carried by the traveling frame, the keeper and latch for securing the hinged platform, the stop for engaging the latch to allow the hinged platform to descend and the bale on the vertical uprights for limiting the 35 descent of said platform.

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

LUTHER M. JOHNSON.

Witnesses:

K. E. SHUSTER,

J. E. WESNER.