

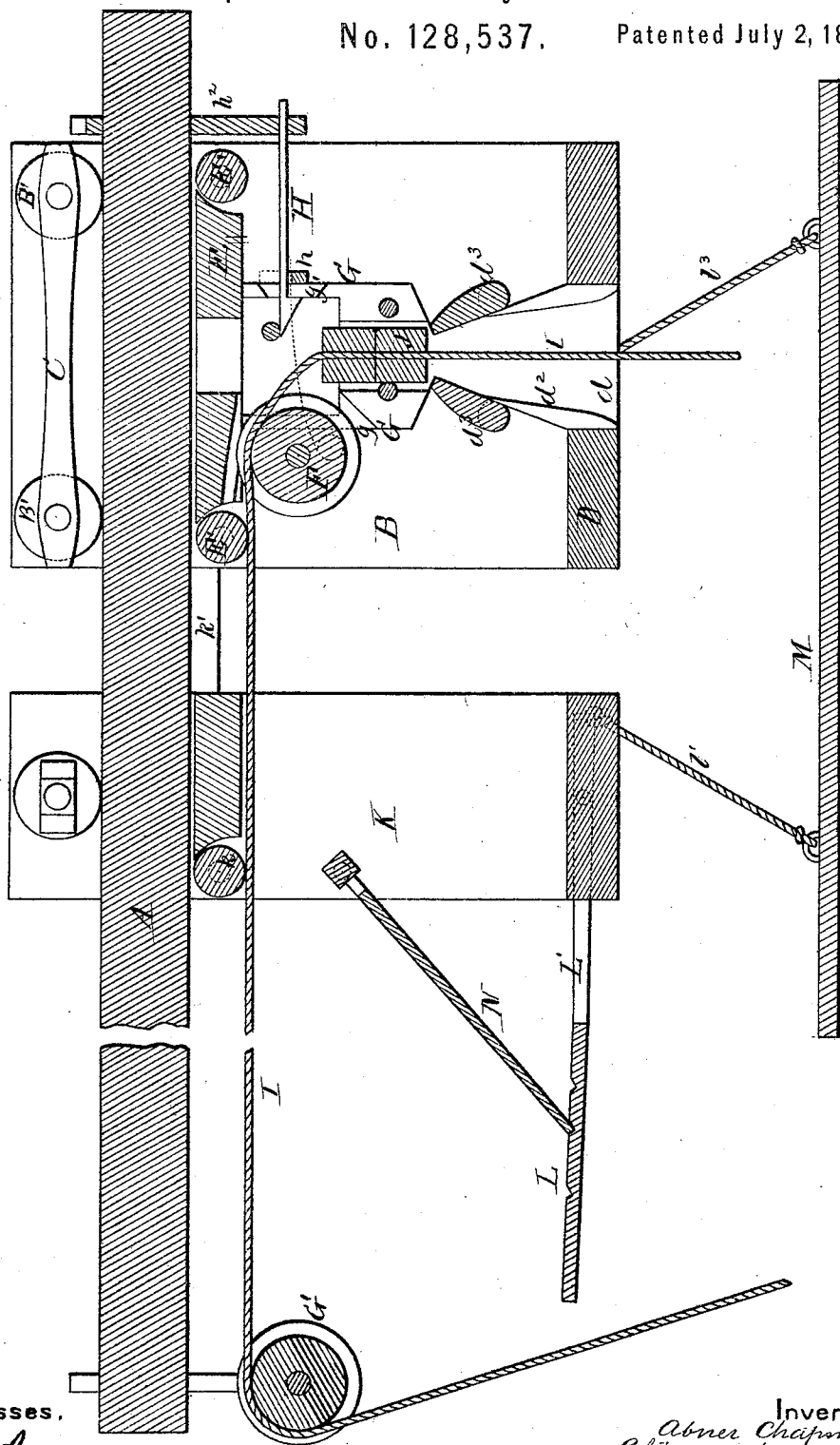
A. CHAPMAN.

Improvement in Hay-Elevator.

No. 128,537.

Patented July 2, 1872.

Fig. 1.



Witnesses.

L. Anderson
Villette Anderson

Inventor.

Abner Chapman
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Attorneys

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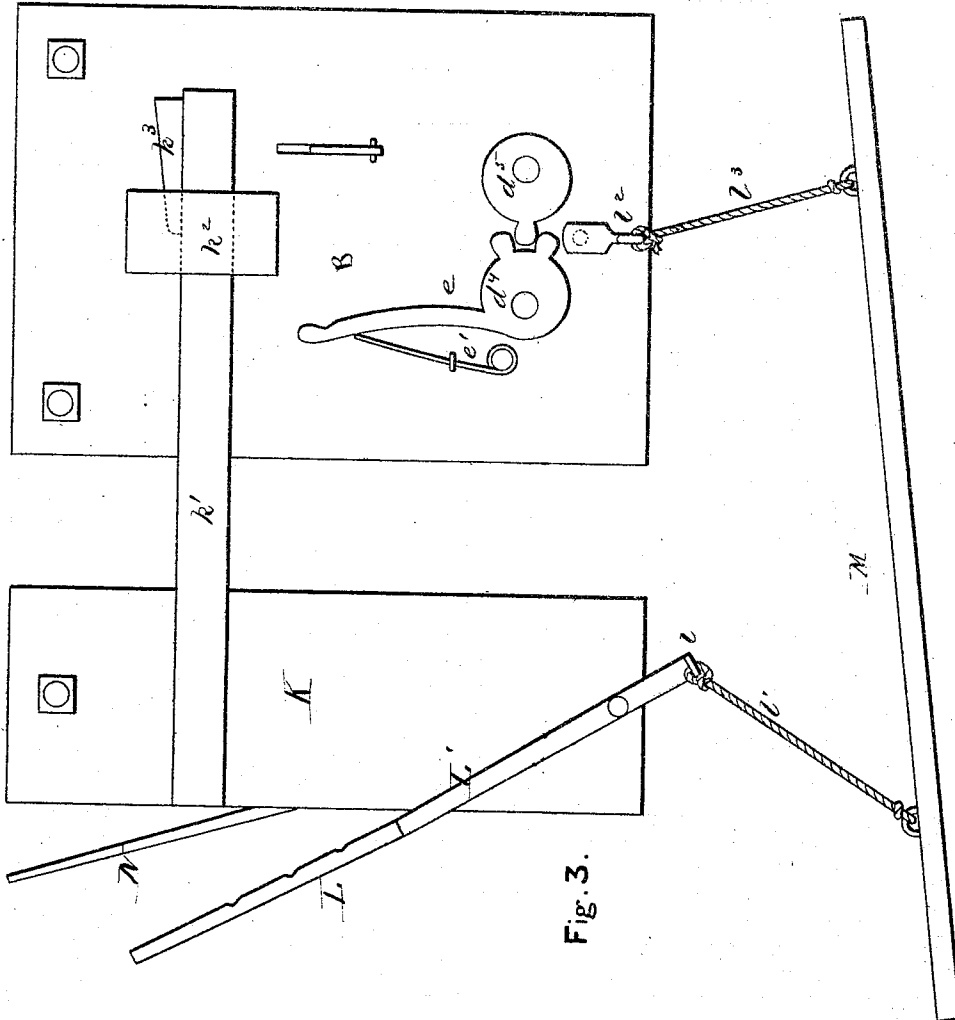


Fig. 3.

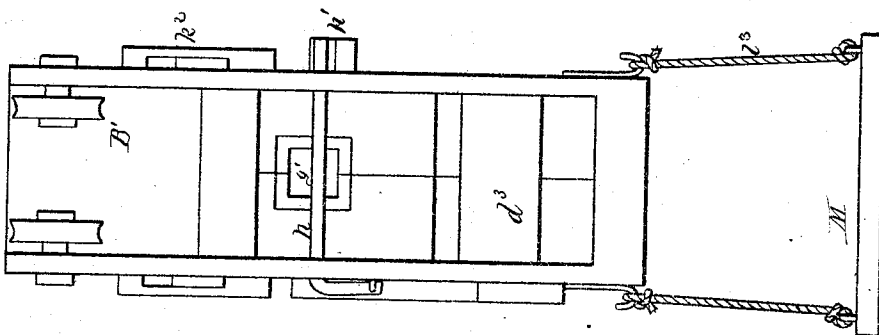


Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

ABNER CHAPMAN, OF DELTA, NEW YORK.

IMPROVEMENT IN HAY-ELEVATORS.

Specification forming part of Letters Patent No. 128,537, dated July 2, 1872; antedated June 22, 1872.

To all whom it may concern:

Be it known that I, ABNER CHAPMAN, of Delta, in the county of Oneida and State of New York, have invented a new and valuable Improvement in Hay-Elevating Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a central vertical longitudinal section of my invention. Fig. 2 is a top view. Fig. 3 is a side view of my invention.

This invention has relation to a combined hay-elevator and fruit-car; and it consists in the construction and novel arrangement of a car provided with devices which serve as brakes to hold the car in position during the elevation of the load of hay, and to hold the rope secure after the elevation of said load. This invention also consists in the construction and novel arrangement of parts whereby this invention is adapted to use for the purpose of transporting fruit, &c., to distant parts of a building, all as hereinafter described.

In the drawing, A represents an elevated railway, upon which runs a car, B, having grooved wheels B' journaled between its sides, near the top thereof. These wheels are supported by the sides of the car and by the horizontal strips C, as shown in the drawing. D designates the bottom of said car, having a funnel-shaped aperture, *d*, with prolongation *d'*, to which are hinged the spring-gates *d''*. The upper edges of said gates incline toward each other, while the adjacent faces thereof constitute continuations of the opening *d*. E denotes the roof of the car, at either end of which is a roller, E'. Below one end of the roof a grooved pulley-wheel, F, is journaled to the sides of the car. Below the middle part of the roof is located a box composed of the walls G and the sides of the car. The bottom of the box has an opening directly over the aperture *d*. In one of the walls G an opening, *g*, is made, to admit a part of the pulley-wheel F. In the other wall a slot, *g'*, is made to receive the barbed end of a rod, H. This rod lies under a transverse bar, *h*, which passes through slots in the sides of the car, and is at

one end bent down and hinged to the outside of the car, while its other end is in contact with a spring, *h'*, which bears down upon it. The rod H extends out past the end of the car, and is attached to a standard, *h''*, secured to the railway. This rod is designed to hold the car in position during the loading or unloading. The barbed or beveled end entering the slot *g'*, which should be also beveled, takes hold of the car, and is held tight by the force of the spring *h'*. I denotes a rope, designed to hold a hay-fork. This rope passes up through the aperture *d*, over the pulley-wheel F, and thence to and over a pulley-wheel, G', located at the extreme end of the railway. J designates a thimble, attached to the rope I. After a load has been grappled by the fork and the rope drawn up the thimble J forces itself between the wings *d''*, and, after passing them, rests on their upper edges, thereby preventing the rope from slipping. By the raising of the rope and thimble the latter is brought in contact with and lifts the rod H, thereby releasing the same from its hold and allowing the car freedom of movement. The car is drawn along by the rope I. The pivots of the wings *d''* project outside the car and are provided with eccentric toothed gear-wheels *d'''*, engaging together. The wheel *d'''* is furnished with a lever-arm, *e*, by the moving of which the gates *d''* are opened or closed. The purpose of opening said gates is to allow the rope to be let down. A spring, *e'*, which is attached to the side of the car and presses against the lever *e*, serves to close said gates automatically. K designates an extension, which may be attached to the car when it is desired to suspend a platform to hold fruit and other articles. This extension has a pulley or friction-roller at *k*, and is coupled to the car by means of two side arms, *k'*, which fit brackets *k''* on the sides of the car, and are held therein by means of wedges *k'''*. L designates a notched beam, having two diverging arms, L', which are hinged to the lower part of the sides of the extension K. The rear ends of said arms project some distance beyond the hinging-pins, and are formed with eyes or hooks *l* for the attachment of ropes *l'*. The sides of the car are also furnished with hooks *l''* for the attachment of ropes *l'*. The ropes *l'* *l''* are employed for the purpose of sustaining a platform, M,

upon which may be placed fruit or anything which it is desired to transport from one part of a building to another. The forward end of said platform may be raised or lowered by changing the position of the bar L and arms L'. A dog, N, pivoted to the extension K, serves to hold the beam L at any desired position.

I claim as my invention—

1. The combination of the railway A, car B, pulley F, rope I, thimble J, hook-rod H, hinged rod h, and spring h', substantially as described.

2. The toothed wheels d^4 d^5 , lever e, and spring e', in combination with the jaws d^3 , rope I, and thimble J, substantially as specified.

3. The suspended platform M, in combination with the car B, railway A, extension K, and rope I, as and for the purpose set forth.

4. The notched lever L, having the arms L' hinged to the sides of the extension K, connections l', and the platform M, in combination with the dog N, as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ABNER CHAPMAN.

Witnesses:

NOAH S. WILSON,
ANNA M. CHAPMAN.