

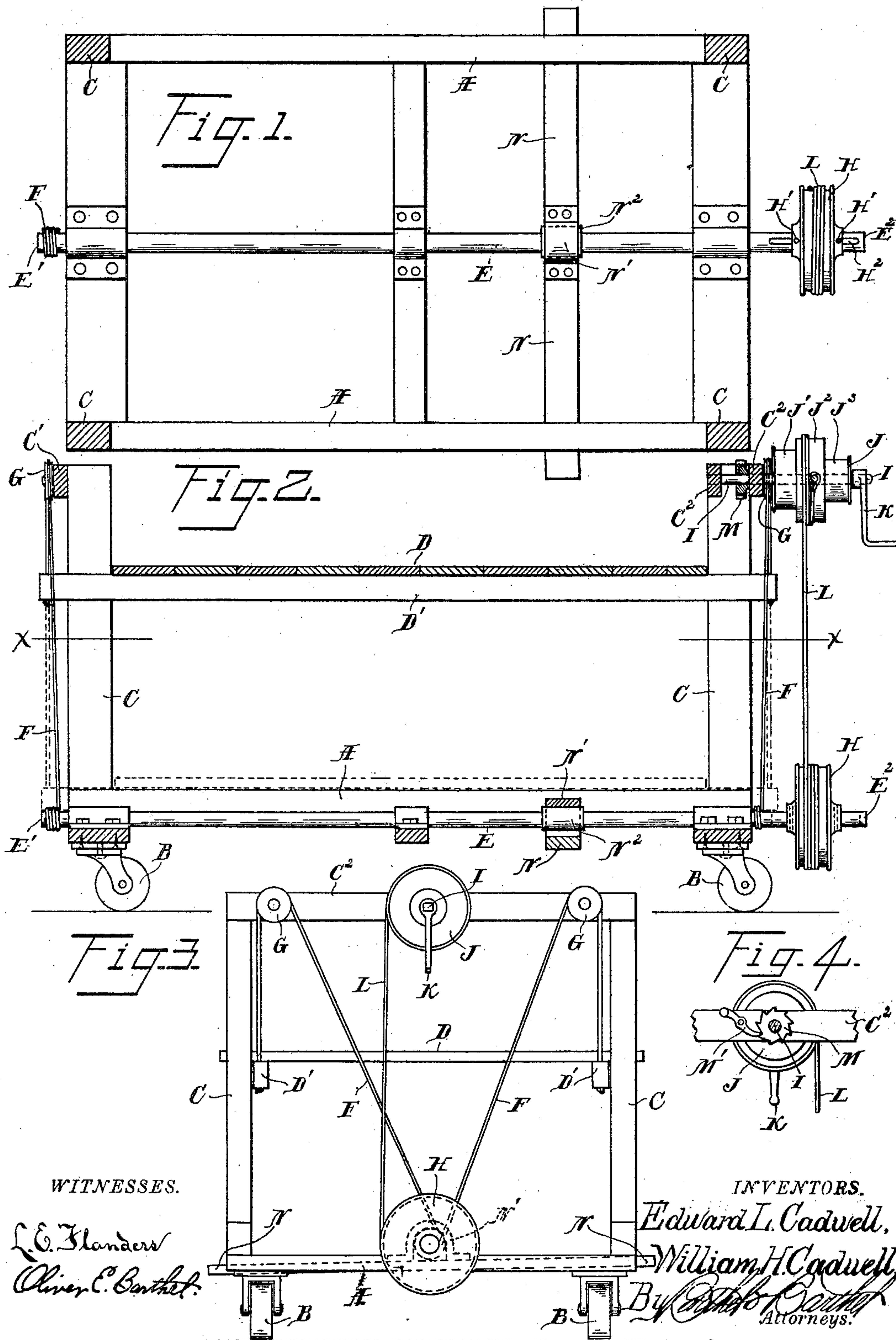
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Patented Nov. 18, 1902.

E. L. & W. H. CADWELL.
ELEVATING TRUCK.

(Application filed Sept. 15, 1902.)

(No Model.)



WITNESSES.

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UNITED STATES PATENT OFFICE.

EDWARD L. CADWELL AND WILLIAM H. CADWELL, OF WAYNE, MICHIGAN.

ELEVATING-TRUCK.

SPECIFICATION forming part of Letters Patent No. 713,746, dated November 18, 1902.

Application filed September 15, 1902. Serial No. 123,410. (No model.)

To all whom it may concern:

Be it known that we, EDWARD L. CADWELL and WILLIAM H. CADWELL, citizens of the United States of America, residing at Wayne, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Elevating-Trucks, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to improvements in trucks or other vehicles having a vertically-movable platform, and especially to trucks for moving baggage at railway-stations and for similar purposes.

The object of the invention is to provide a cheap and efficient construction which may be easily and quickly manipulated; and it consists in providing means for varying the speed according to the load and in providing a suitable brake to control the lowering of the platform.

It also consists in the particular arrangement and combination of parts and in certain other new and useful features, all as hereinafter more fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a horizontal section on the line $x x$ of Fig. 2 of a device embodying our invention; Fig. 2, a longitudinal vertical section of the same; Fig. 3, an end elevation, and Fig. 4 a detail showing the ratchet and pawl for holding the platform in its elevated position.

A is a rectangular bed or frame, to the lower side of which are secured the four casters or wheels B, one near each corner, and extending vertically upward from each corner of said frame is a post C, the pair of posts at each end being connected by the cross-bars C' and C'' at their upper ends. Extending longitudinally of the frame A and adjacent to the inner side of the posts are the two stringers D' , to which the planking forming the platform D are secured, said planking extending beyond said stringers and engaging the inner edges of the posts, so that the platform is guided in its movement by said posts.

Journalled in suitable bearings on the frame A and extended longitudinally thereof at its center is a shaft E, to the extended end E' of

which is secured one end of the cables F, which are adapted to be wound thereon, said cables extending upward over the sheaves or pulleys G, which are secured to the cross-bar C' and secured at their opposite ends to the extended ends of the stringers by being passed through a vertical hole in each. The opposite end E^2 of said shaft is also extended and similar cables secured thereto to lift the opposite end of the platform when said shaft is turned to wind said cables thereon. Loosely mounted upon the end E^2 of said shaft to move longitudinally thereon is a winding-drum H, which is secured to the shaft to rotate therewith by pins H' , which pass through a slot H^2 in the shaft, and secured to a stub-shaft I, which is journaled in suitable bearings in the cross-bars C'' , is the winding-drum J, having the three faces J' J^2 J^3 of different diameters. A crank-handle K is provided to turn the drum J to wind the cable L thereon, which cable is wound around the drum H and secured thereto at its opposite end, so that when the drum J is turned motion is transmitted by the cable L to the shaft E.

When the platform is heavily loaded, the cable L may be shifted to a face of the drum J of smaller diameter and the drum H moved longitudinally into alinement with the face used; but when no great amount of force is required to raise the platform the cable may be wound on the larger face and the work done more rapidly.

To hold the platform in any position to which it may be elevated, a ratchet-wheel M is secured on the stub-shaft I, and a weighted pawl M' is pivoted to the cross-bar C'' to engage the ratchet and prevent its turning in one direction.

In lowering the platform it is necessary to retard its movement, so that it will not strike the frame with great force. This may be done by holding the handle K; but this is difficult to do and requires much strength when the platform is heavily loaded, and therefore a brake-bar N is provided which extends transversely across beneath the frame A and is hung at its center upon the shaft E by a strap or band N' , which encircles the shaft and forms a friction-band to engage the enlarged portion N^2 of the shaft. The ends of the brake-bar extend beyond the sides of

the frame a short distance, so that the operator may place his foot thereon at either side of the truck, and thus bring the opposite end of the bar into contact with the frame to force
 5 the band against the shaft. By this construction the operator is enabled to lift a heavy load with ease and despatch and to as easily lower the same without danger of being injured by the revolving handle or of breaking
 10 the truck by the falling of the loaded platform.

Having thus fully described our invention, what we claim is—

1. In a vehicle of the character described,
 15 the combination with a frame, a vertically-movable platform, a shaft extending longitudinally of said frame, pulleys on the frame, cables secured at one end to said shaft and at their opposite ends to the platform and
 20 passing over said pulleys, and means for turning said shaft to raise the platform; of a brake-bar extending on opposite sides of the frame and adapted to be forced into frictional contact with said shaft from either side
 25 to retard its rotation.

2. In a vehicle of the character described, the combination with a frame, a vertically-movable platform guided by said frame, a longitudinal shaft rotatable in bearings on
 30 said frame, pulleys on said frame, and cables passing over said pulleys and secured at one end to said shaft and at the opposite ends to the platform; of a drum on said shaft, a drum having faces of different diameters, a
 35 cable secured at its ends to said drums and adapted to transmit motion from one to the other, and means for rotating the drum having several faces.

3. In a truck of the character described, the
 40 combination with a frame, a vertically-movable platform mounted on said frame, a longitudinally-extending shaft journaled in bearings, pulleys on said frame, and cables extending over said pulleys and secured at their
 45 ends to the shaft and platform respectively; of a brake-bar extending transversely beneath said frame and beyond the same on opposite sides and adapted to engage the under side of the frame near its ends, and a band
 50 secured to said bar near the middle and embracing the said shaft.

4. The combination with a truck-frame hav-

ing vertical corner-posts; of a vertically-movable platform adapted to be guided by said posts, a longitudinal shaft journaled in bear-
 55 ings upon said frame and having an extended end provided with a slot, pulleys secured to the upper ends of the posts, cables passing over said pulleys and secured at one end to the said shaft and one to each corner of the
 60 platform at their opposite ends, a drum on the extended end of the shaft provided with pins engaging the slot in said end, a stub-shaft secured in bearings at the upper end of the posts, a drum having faces of differ-
 65 ent diameters secured on said shaft, a cable secured at its ends to said drums and wound upon the same, a crank-handle to turn the stub-shaft, a ratchet-wheel on said stub-shaft, and a pawl to engage the ratchet and prevent
 70 the stub-shaft from turning.

5. In a truck, the combination of a rectangular frame, posts secured to said frame at its corners, cross-bars uniting the posts at each end of the frame, a vertically-movable
 75 platform guided by said posts, a shaft journaled in bearings on the lower side of the frame and extending beyond the ends thereof, one end of said shaft being provided with a slot, pulleys supported by said cross-bars, cables passing
 80 over said pulleys and secured at their ends to the shaft and to the corners of the platform respectively, a winding-drum on the slotted end of the shaft, pins in the drum projecting into the slot in said shaft, a stub-shaft jour-
 85 naled in bearings in the cross-bars of the frame, a drum on the stub-shaft having faces of different diameters, a cable secured to said drums and adapted to be wound thereon, a crank-handle to turn the drum having the
 90 several faces, a ratchet on the stub-shaft, a pawl pivoted to the cross-bar of the frame to engage the ratchet, a brake-bar extending transversely beneath the frame and beyond the sides thereof, and a band secured to the
 95 bar and embracing the longitudinal shaft.

In testimony whereof we affix our signatures in presence of two witnesses.

EDWARD L. CADWELL.
 WILLIAM H. CADWELL.

Witnesses:

OTTO E. BARTHEL,
 THOMAS G. LONGSTAFF.