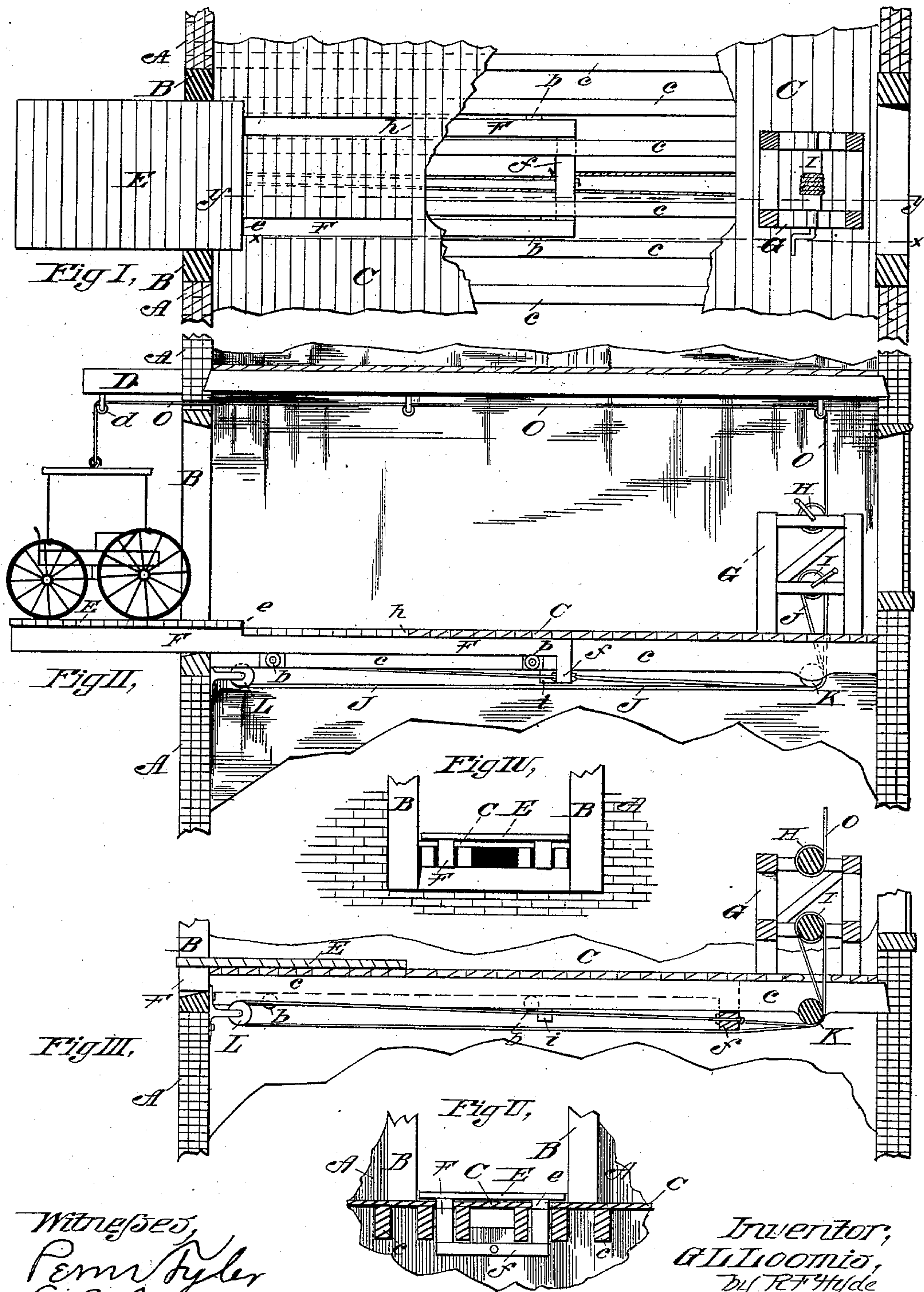


(No Model.)

G. L. LOOMIS.  
CARRIAGE ELEVATOR.

No. 389,583.

Patented Sept. 18, 1888.



Witnesses,  
Perry Tyler  
& E. C. Case

Inventor,  
G. L. Loomis,  
by R. F. Hyde  
Att'y,



# UNITED STATES PATENT OFFICE.

GEORGE L. LOOMIS, OF NORTHAMPTON, MASSACHUSETTS.

## CARRIAGE-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 389,583, dated September 18, 1888.

Application filed March 19, 1888. Serial No. 267,609. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE L. LOOMIS, a citizen of the United States, residing at Northampton, county of Hampshire, and State of Massachusetts, have invented a new and useful Carriage-Elevator, of which the following is a specification.

My improvements relate to mechanism for hoisting vehicles and other bulky objects upon the outside of buildings, so as to land them upon or deliver them from an upper floor with facility and safety, and with the additional advantage of saving the large amount of space within a building required for a hatch or inclined way; and my invention consists in the combination and construction, as hereinafter described, and more particularly pointed out in the claims.

My invention is fully illustrated in the accompanying drawings, in which—

Figure I is a plan view of a portion of the floor of a building, having a part of the flooring broken away to expose the joists and the relative position of part of my mechanism therewith. Fig. II is a sectional elevation of a building having my improvements combined therewith, and upon the dotted line *xx* of Fig. I. Fig. III is a partial sectional elevation of a building, showing my mechanism combined therewith in a different position from that shown in the preceding figures and upon the dotted line *yy* of Fig. I. Fig. IV is an end view of part of my mechanism, looking inward; and Fig. V is an end view of the same, looking outward and in section through the joists close to the wall of the building.

A is the front wall of a building.

B is a door-frame having its sill flush with the floor C, and having in a vertical line above it the beam D, for supporting the hoisting-block *d*, and *c* are the joists for supporting the flooring, all of these parts being of the usual form of construction.

E is a platform having a surface large enough to hold a carriage when projected beyond the front wall, A, and adapted to pass between the jambs of the door B. The platform E is secured upon a frame, F, consisting of two beams extending from the outer end of the platform inward between the joists *c*, and having their

ends united beneath two or more joists by a cross-piece, *f*. These beams, connected by the platform E and end *f*, rest upon friction-rolls *b*, journaled in the joists *c* adjacent to the beams, and the beams bearing upon the rolls *b* can be moved over the door sill or in grooves cut therethrough to take with them the platform secured thereto.

The inner end of frame F, for about the third of the length of said frame, is covered by the flooring C, in near contact with the beams of the frame, so that when the platform E is extended and bearing the weight of a carriage, as shown in Fig. II, the floor above the beams and the joists above the cross-piece *f* secure the weighted frame F, bearing on the door-sill, or the friction-rolls nearest thereto, from tipping at its free end.

As shown in Figs. I and II, the floor C is cut away from immediately over the beams of frame F, from the door B inward, a distance equal to about one third of the length of said frame, and the beams immediately under the platform rise to lift said platform above the level of floor C, so that the platform retracted, as seen in Fig. III, will pass over the floor proper, and so that the platform when extended, as shown in Fig. I, will have behind it a surface over which things may be easily and safely moved, the slight depression over the beams of the thickness of the flooring opposing no obstacle to the moving of vehicles over the beams. The shoulders *e* upon the frame F, coming against the floor at *h*, form a stop to limit the retraction of the platform, and a lug, *i*, upon the joists *c*, between the beams of frame F, forms a stop against which end *f* brings up to limit the extension of the platform, so that the frame F may be run out or in without care being taken as to the extent of the movement given it.

Upon the floor C, and in a line centrally with the frame F, is a windlass-frame, G, having journaled therein two drums, H I. The lower drum, I, has wound around it several times, to secure sufficient friction, an endless cord, J, as seen in Fig. I. The cord J, passing from drum I through an opening in the floor beneath, is carried over a roll, K, to obtain the proper direction, and from thence over a pulley, L,



fast beneath the sill of door B, having its upper member made fast to the part *f* of frame F, as shown in the drawings, so that a rotation of drum I by means of its crank-handle will  
 5 slide the frame F as the drum is rotated in one or the other direction. From the drum H, provided with the usual pawl and ratchet and crank-handle, passes the cord O to the hoisting-block *d* upon beam D.

10 In operation, the vehicle, being secured to the sling upon the end of the hoisting-cord O, is raised to the required height by the windlass and secured there by the pawl upon drum H to permit the operator to turn his attention  
 15 to the drum I, which, by rotating, he causes to project the platform beneath the suspended vehicle, which is then lowered to rest upon the platform, and can be from thence rolled into the building or be carried therein upon the  
 20 platform. The operation of lowering vehicles from the floor to the ground is substantially the same, and needs no particular description.

One operator can by this device raise any number of the heaviest vehicles, one at a time.  
 25 The internal space hitherto required for a hatch or inclined way is saved, and it may be combined with buildings fronting upon the narrowest streets.

Now, having described my invention, what  
 30 I claim is—

1. The within-described elevator for carriages and other large objects, comprising, essentially, a platform, E, adapted to pass through the door-frame and project therefrom, supporting-beams extending from beneath the  
 35 platform between the joists *c* and supported upon anti-friction rolls, and a cross-piece, *f*, bearing upon the lower sides of the inclosed joists and uniting the inner ends of said beams,

a drum, I, mounted in a frame upon floor C 40 in rear of the movable frame, and provided with an operating crank-handle, a continuous cord, J, wound upon said drum to pass therefrom beneath the floor over a pulley, L, located beneath the door-frame in fixed bearings and 45 attached intermediate the drum and pulley L to the movable frame, and a hoisting-cord, O, and pulley *d* from outside the wall A and over the door-frame B, all operating as and for the purpose set forth. 50

2. The within-described improved carriage-elevator, consisting of a movable platform, E, arranged above the flooring of a building to form a part thereof and adapted to be projected therefrom through a door-frame, as B, a frame 55 for said platform, consisting of supporting-beams extending from beneath the platform between the joists *c* and supported on friction-rollers having a cross-piece, as *f*, against the lower sides of the joists, having offsets from 60 the beams projecting through slots in the flooring and forming supports for the platform E, to raise it above the flooring when retracted, and provided with stops and joists and flooring for limiting the movement of the platform 65 in both directions, a windlass-frame, as G, drum I, continuous cord J, fast to frame F and passing from roll I over pulley L and operating, as described, to impart a sliding movement to frame F upon the rotation of drum I, 70 and drum H, cord O, and support D, outside of the building, substantially as shown and described.

GEORGE L. LOOMIS.

Witnesses:

R. F. HYDE,  
 PENN TYLER.