

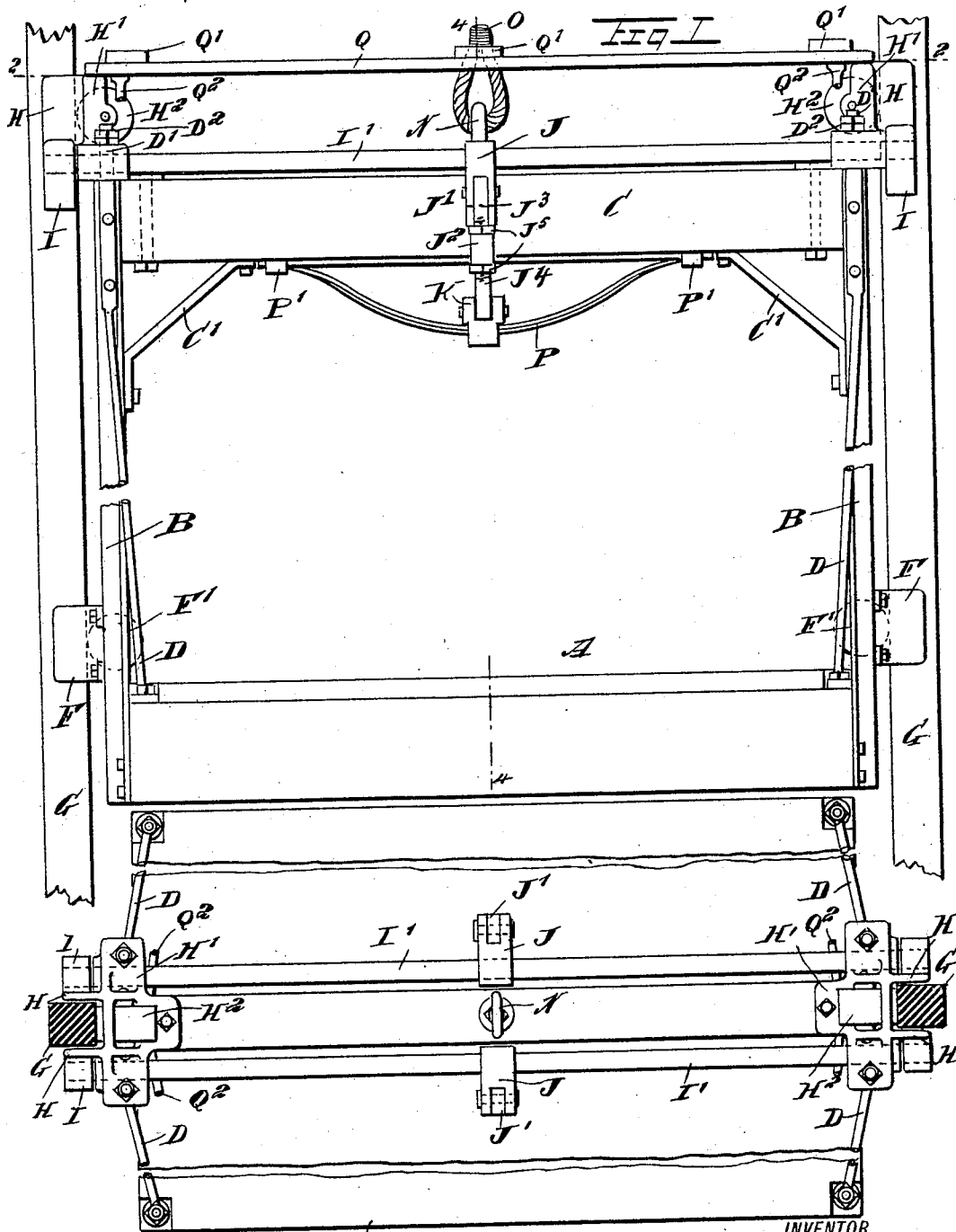
(No Model.)

3 Sheets—Sheet 1

A. E. PELHAM.
ELEVATOR PLATFORM.

No. 578,156.

Patented Mar. 2, 1897.



WITNESSES:
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Rev. J. H. Boston

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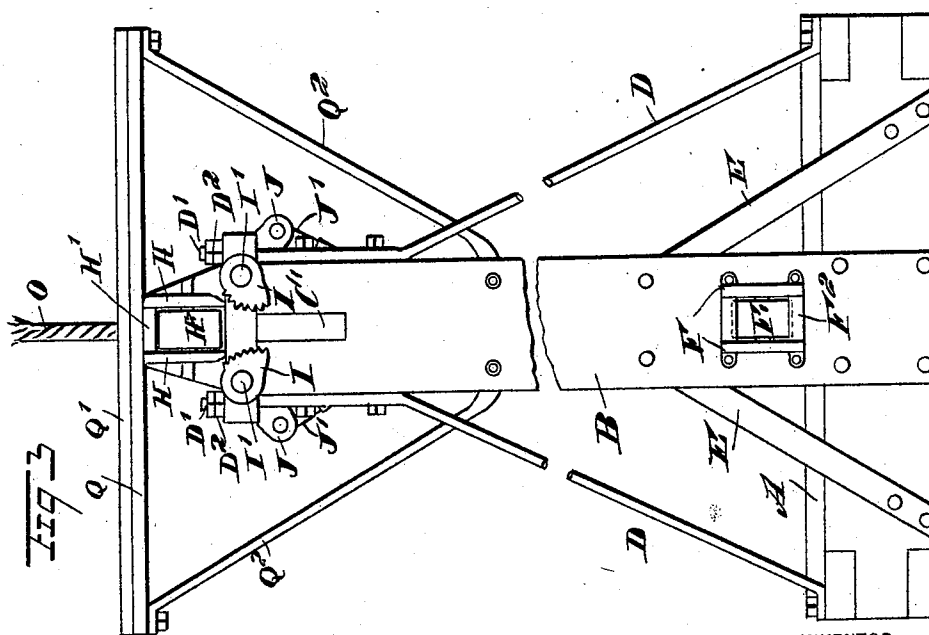
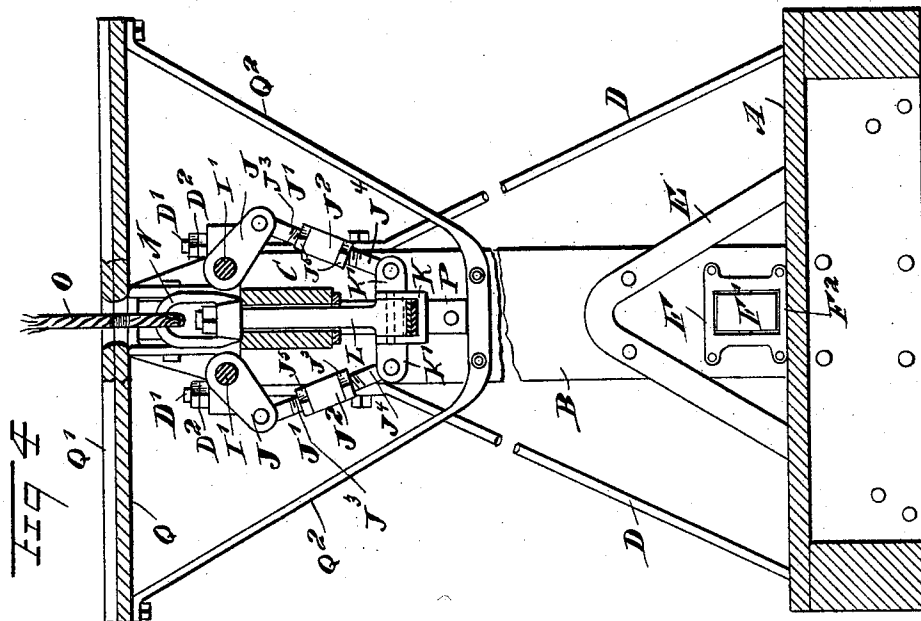
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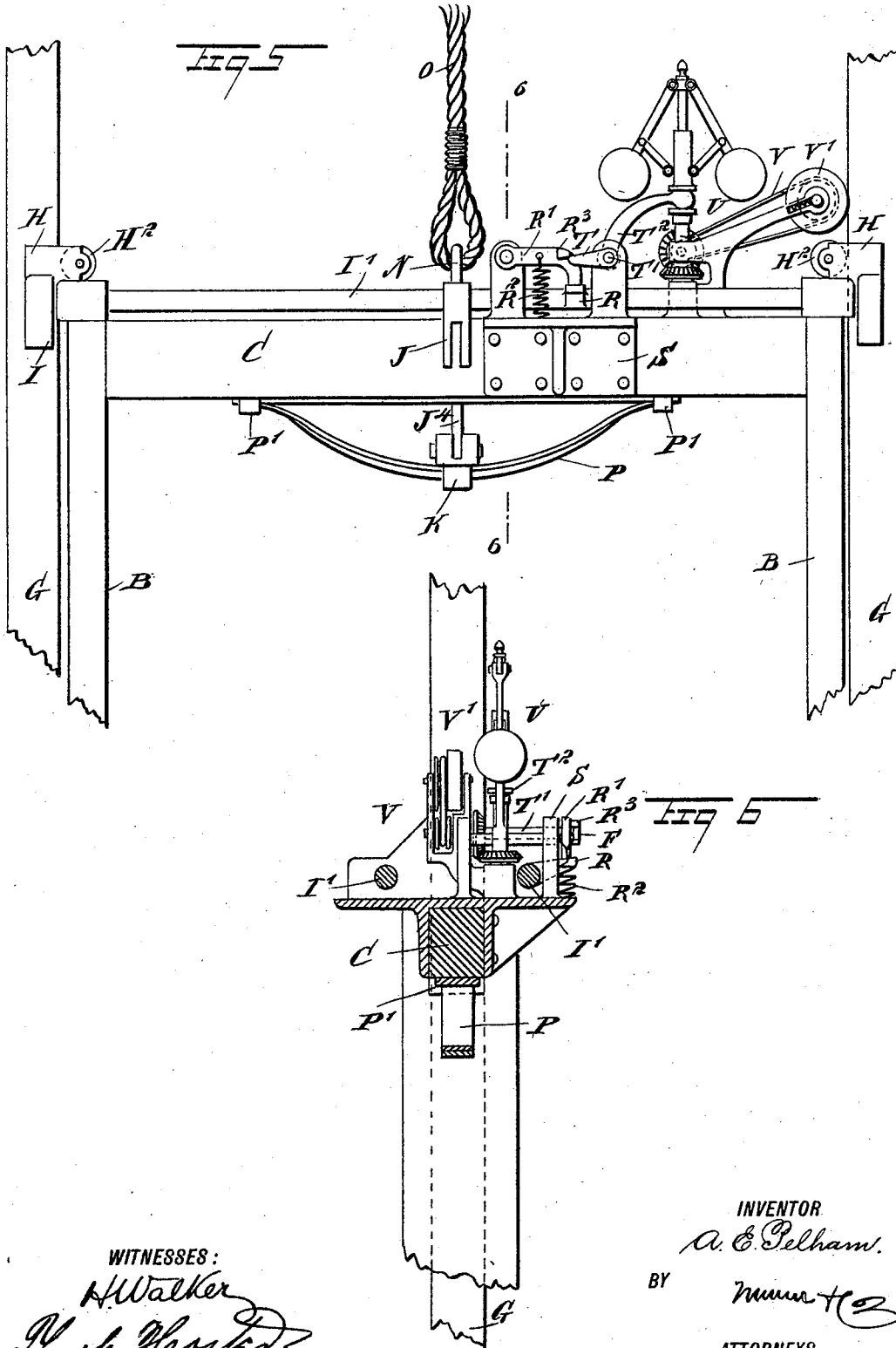
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UNITED STATES PATENT OFFICE.

ALPHONZO EUGENE PELHAM, OF NEW YORK, N. Y.

ELEVATOR-PLATFORM.

SPECIFICATION forming part of Letters Patent No. 578,156, dated March 2, 1897.

Application filed October 2, 1896. Serial No. 607,645. (No model.)

To all whom it may concern:

Be it known that I, ALPHONZO EUGENE PELHAM, of New York city, in the county and State of New York, have invented a new and Improved Elevator-Platform, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved elevator-platform which is simple and durable in construction, and more especially designed for use in elevators carrying hods, wheelbarrows, and other vehicles, articles, passengers, &c.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement. Fig. 2 is a sectional plan view of the same on the line 2 2 of Fig. 1. Fig. 3 is an end elevation of the same. Fig. 4 is a transverse section of the same on the line 4 4 of Fig. 1. Fig. 5 is a side elevation of a modified form of the improvement, and Fig. 6 is a cross-section of the same on the line 6 6 of Fig. 5.

The improved elevator-platform is provided with the bottom or platform proper, A, on which are erected on opposite sides the standards B, connected with each other at the top by a cross-beam C, as plainly shown in the drawings. The standards B are securely held in place by braces D and E, connected with the bottom or platform proper, A, and the cross-beam C and said standard are connected by diagonal braces C'.

On the outer faces of the standards B are secured the lower slides F, adapted to engage the sides of the shaft-posts G, secured in the building and on which the platform or cage is guided in its up-and-down movement. The slides F are formed integrally on a casting F², bolted or otherwise fastened to the standards B, the castings also carrying the bearings for the shafts of the wheels F', adapted to engage the sides of the shaft-posts G, to reduce the

frictional contact of the elevator-platform on the said posts to a minimum.

The upper slides H are formed integrally on a casting H', secured to the top of the standards B by the bolts D', formed on the upper ends of the braces D, the said bolts having suitable nuts D², screwing on the top of the castings H'. In the castings H' are formed bearings for the shafts of the wheels H², similar to the wheels F', and likewise engaging the inner sides of the posts G. The castings H' are also provided with transversely-extending bearings for the clutch-shafts I', carrying on their outer ends the clutches I, adapted to engage the sides of the posts G in case the supporting-cable for the platform breaks, as hereinafter more fully described, the said clutches then serving to hold the cage in position and prevent a rapid descension thereof.

The middle parts of the shafts I' are provided with downwardly and outwardly extending arms J, connected by links J' with lugs K', projecting laterally from a head K, pivoted on the lower end of a pin L, passing through an opening in the cross-beam C, to carry at its upper end an eyebolt N, secured on the pin L, with a lock-nut screwed onto the pin, to securely lock the eyebolt N in position to prevent it from unscrewing by the cable or rope O, connected with the said eyebolt and used for raising and lowering the platform. Each link J' is made in sections J³ J⁴, connected with each other by a turnbuckle J², adapted to be locked in place by jam-nuts J⁵, screwing on the link-sections J³ J⁴. By adjusting the turnbuckle J² the links can be shortened or lengthened to adjust the clutches I relative to the posts G, to take up all wear and tear on the clutches and posts. The head K engages the middle portion of the spring P, resting with its free ends on the under side of the cross-beam C, preferably in sockets P', secured to the said cross-beam.

It is evident that in case the cable breaks the spring P acts in the usual manner on the head K, the links J', and arms J to turn the shafts I', so as to move the safety-clutches I in contact with the sides of the shaft-posts G to lock the elevator-platform in place and conse-

quently prevent accident or damage to the passengers, vehicles, or materials supported on the said platform.

The elevator-platform may be provided with a top or cover Q, stiffened by cross-beams Q' or angle-irons resting on the castings H'. Braces Q² may also be connected with the said cover Q and fastened to the standards B, as indicated in the drawings.

It is evident that by having the castings H' the construction of the elevator-platform can be greatly simplified, especially as the said castings form integral guideways for engaging the shaft-posts and integral bearings for the clutch-shafts and the shafts of the friction-wheels H², the castings also forming a support for the top cover of the platform.

If desired, the elevator-platform may be inclosed on three sides by slats or other suitable means.

Both shafts I I' may be connected with the spring K and cable O, as described; but one may be disconnected from the spring by removing the link J' and connecting the shaft with a speed-governor to control the shaft and its clutch, according to the speed of the car, so that in case of the breaking of the cable or a very rapid descent or ascent of the elevator the speed-governor will act on the shaft to apply the clutches on the guide-posts. For this purpose I provide the arrangement shown in Figs. 5 and 6 and in which the shaft I', disconnected from the link J', is provided with an arm R, engaged by a lever R', fulcrumed on a bracket S, attached to the cross-beam C. A spring presses on the lever R' in a downward direction; but the lever is normally locked in place by an arm T, engaging a lug R³ on the said lever R'.

The arm T is secured on a shaft T', journaled in the bracket S and provided with an arm engaging the stem of the governor U, so that the action of the latter when running at a high rate of speed causes an upward swinging of the arm T² and a downward movement of the arm T to allow the spring R² to swing the lever R' downward to turn the shaft I' and cause its clutches I to move in contact with the sides of the shaft-posts G to lock the elevator-platform in place.

The governor U may be of any approved construction and driven by a belt V and a pulley V' in contact with one of the posts G, so that on the up or down movement of the platform the pulley rolls off on the shaft to actuate the governor.

When the arm T swings downward, as above described, it passes from under the lug R³ and allows the downward swinging of the lever R', and when the platform comes to a standstill and the governor assumes its normal resting position then the arm T in swinging upward back to its normal position is out of reach of the lug R³ and consequently does not lift the lever R'. The platform thus remains in position until the lever R' is reset.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with the guide-posts of the elevator-shaft, the elevator-platform, a top or cover for said platform, clutches adapted to grip said guide-posts on the breaking of the hoisting-cable, friction-rollers bearing on said guide-posts, and castings secured to said platform and formed with integral slides engaging said guide-posts and also with integral bearings for the shafts of said clutches and of said friction-rollers, and said castings also forming a support for said top or cover for the platform, substantially as described.

2. An elevator-platform, provided with shafts carrying clutches adapted to engage the guide-posts, arms held on the said clutch-shafts, links formed with turnbuckles and connected with said arms, a head connected with the said links, a pin connected with said head, an eyebolt and jam-nut connected with said pin and with the lifting or hoisting cable, and a spring held in the said head and resting with its ends on the under part of the top cross-beam of the platform proper, substantially as shown and described.

3. An elevator-platform provided with shafts carrying clutches adapted to engage the guide-posts, arms held in the said shafts, and links connected with the said arms and made in sections connected with each other by turnbuckles, to permit of lengthening or shortening the links to adjust the clutches relative to the guide-posts, substantially as described.

4. The combination with the guide-posts of the elevator-shaft, the elevator-platform, standards held on the said platform, braces for the said platform and standards, friction-wheels engaging the said posts, castings resting on the upper ends of the said standards and fastened by bolts formed on the said braces, each casting being formed with integral slides engaging said guide-posts and also with integral bearings for the said friction-wheels, substantially as shown and described.

5. An elevator-platform comprising a platform, standards held on the said platform, braces for the said platform and standards, castings resting on the upper ends of the said standards and fastened by bolts formed on the said braces, each casting being formed with integral guideways and bearings for friction-wheels engaging the guide-posts, shafts journaled in said castings and carrying at their ends clutches for engagement with the sides of the guide-posts, arms held on the said clutch-shafts, adjustable links and turnbuckles with jam-nuts connected with said arms, a head connected with the said links, a pin pivotally connected with the said head, and eyebolt and jam-nut connected with said pin and connected with the hoisting-cable, and a spring held in the said head and resting with its ends on a cross-beam con-

necting the said standards with each other, substantially as shown and described.

6. An elevator-platform, provided with castings, each provided with vertically-disposed parallel integral slides for engagement with the guide-posts, and also with longitudinally-extending integral bearings for the

clutch-shafts and with transverse bearings for the guide-post friction-rollers, substantially as shown and described.

ALPHONZO EUGENE PELHAM.

Witnesses:

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JNO. M. RITTER.