W. LIVINGSTONE.

Improvement in Elevators.

No. 130,509. Patented Aug. 13, 1872.

Fig. 1.

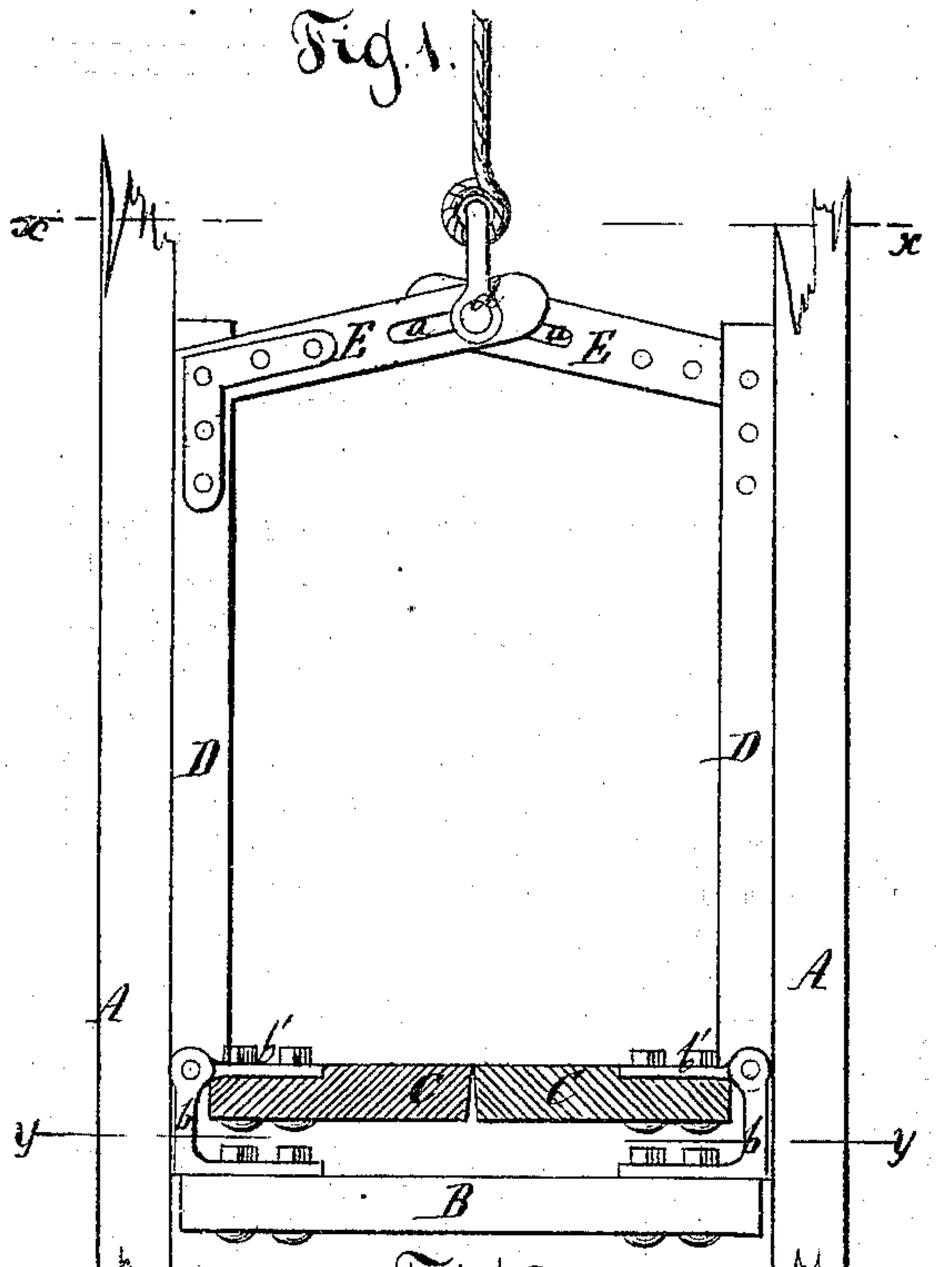


Fig. 2.

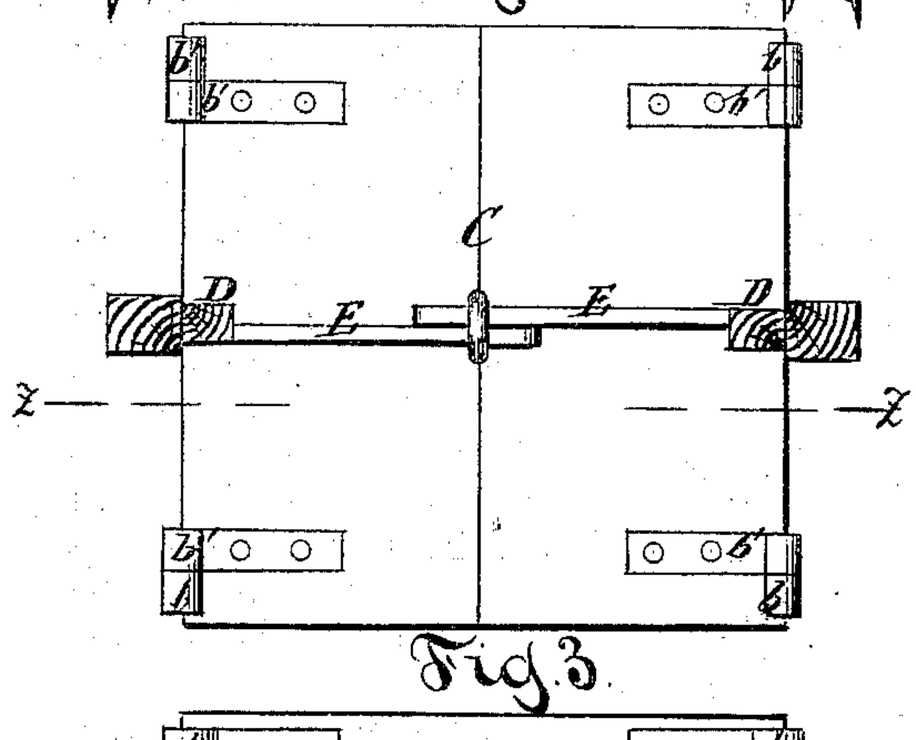


Fig. 3.

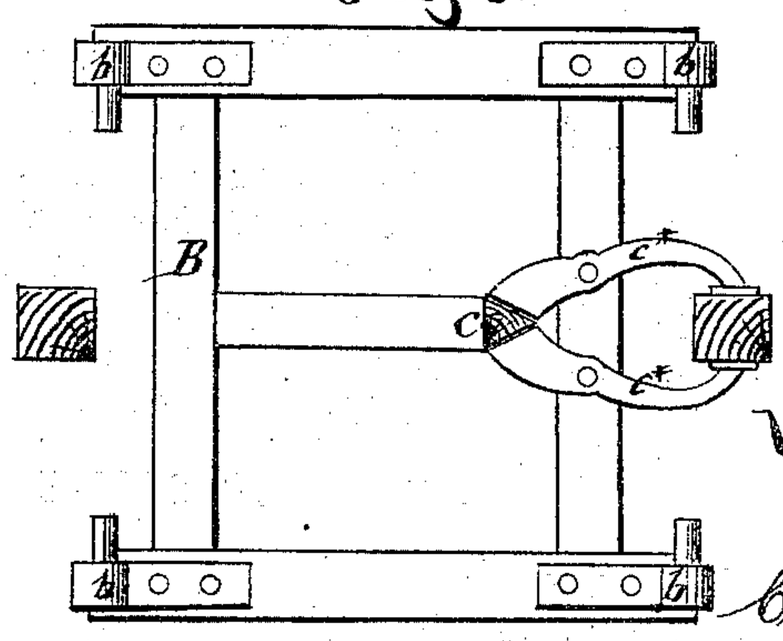


Fig. 4.

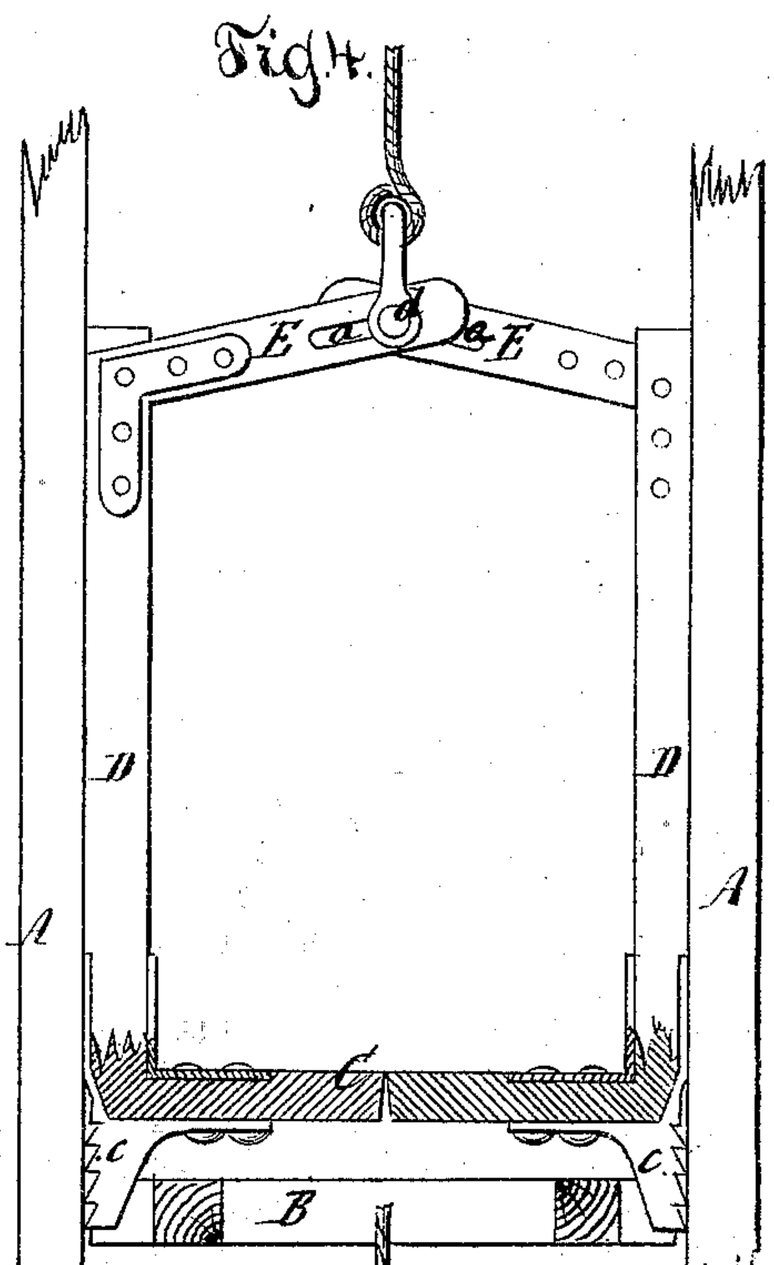
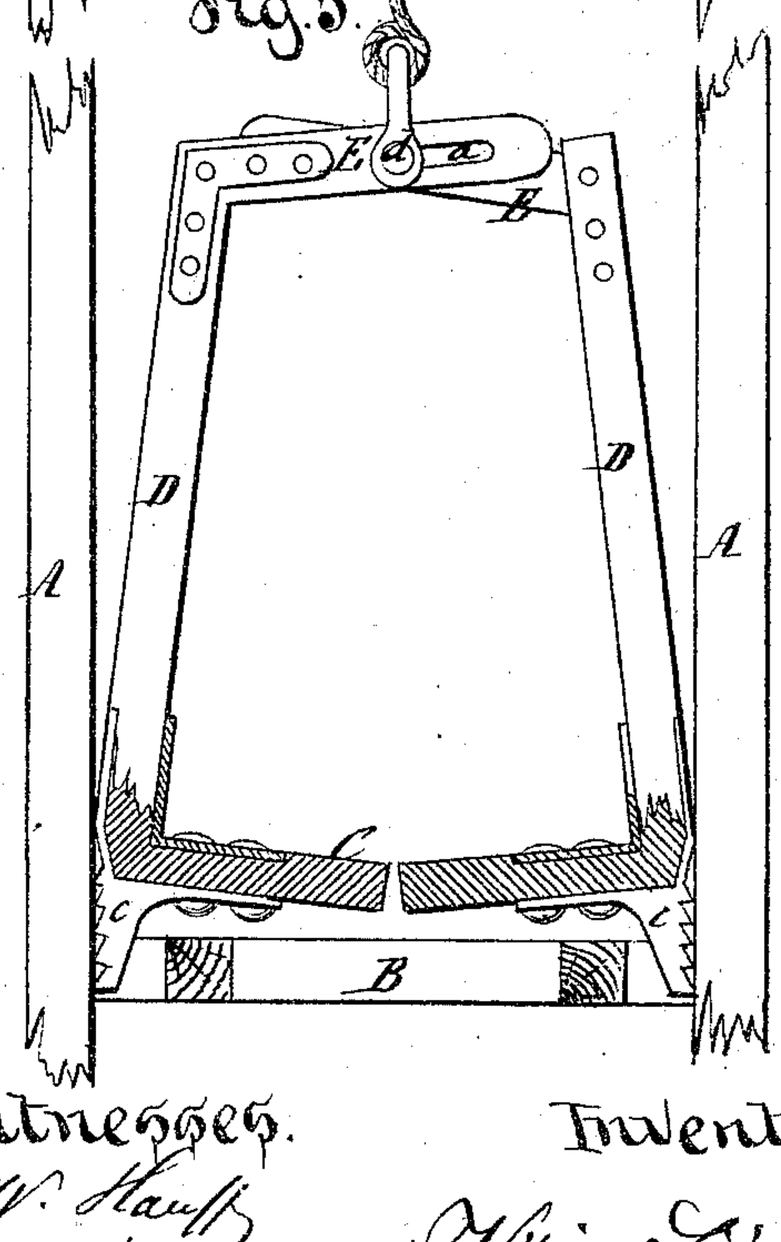


Fig. 5.



Witnesses.

W. Hauff

Chas. Wahlers.

Inventor.

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UNITED STATES PATENT OFFICE.

WILLIAM LIVINGSTONE, OF BROOKLYN, ASSIGNOR TO HIMSELF AND JOHN N. BLASI, OF NEW YORK, N. Y.

IMPROVEMENT IN ELEVATORS.

Specification forming part of Letters Patent No. **130,509**, dated August 13, 1872.

To all whom it may concern:

Be it known that I, WILLIAM LIVINGSTONE, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Platform-Elevators; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which drawing—

Figure 1 represents a sectional front view of this invention. Fig. 2 is a horizontal section of the same in plane *x x*, Fig. 1. Fig. 3 is a similar section in the plane *y y*, Fig. 1. Fig. 4 is a vertical section of the same in the plane *z z*, Fig. 2, when the hoisting-rope is strained and the platform free to move up or down; and Fig. 5 is a similar view of the same when the strain on the hoisting-rope is relaxed and the platform locked.

Similar letters indicate corresponding parts.

This invention consists in combining, with a sectional platform, a supporting-frame and a locking mechanism acting against the uprights or sides of the elevator-well in such a manner that as long as the hoisting-rope is subjected to a strain the locking mechanism is thrown out of action and the platform is free to move up or down without obstruction, but as soon as the strain on the hoisting-rope is relaxed the weight of the platform itself and that of the load resting on said platform cause the locking mechanism to act, and thereby the platform is effectually prevented from dropping and all accidents from carelessness or from the breakage of the hoisting-rope are avoided.

In the drawing, the letter A designates the uprights or sides of the elevator-well, and between these uprights is placed a frame, B, (best seen in Fig. 3,) which forms the support for a platform, C. This platform is made in two sections, each of which is connected to the supporting-platform B by means of hinge-joints *b b'*, so situated that if the sections of the platform are left to follow their own gravity they assume the position shown in Fig. 5. From each of the sections of the platform rises a standard, D, and from the upper ends of these standards extend arms E E, which overlap each other, and each of which is provided with a slot, *a*, to receive a bolt, *d*, to which the hoisting-rope is secured. From the lower surface of each of the sections of the platform extends a toe, *c*, which may be serrated and situated close to the uprights A, or which may be tapering and made to pass in between two clamping-levers, *c**, (see Fig. 3,) which are pivoted to the supporting-frame B and straddle the uprights A A. If the hoisting-rope is subjected to a strain or tension the toes *c* clear the uprights A or the clamping-levers *c**, and the platform moves up and down without obstruction; but as soon as the strain on the hoisting-rope releases, the sections of the platform C assume the position shown in Fig. 5, the toes *c* bear against the uprights A or against the clamping-levers *c**, and the platform is locked.

It will be readily seen that the weight of the load supported by the platform will increase the hold of the toes *c*, or of the clamping-levers *c**, on the uprights A, and the greater the load the more firmly the platform will be locked.

It is obvious that many different devices might be suggested for the purpose of locking the platform to the uprights or sides of the elevator-well; and I do not wish to confine myself in this respect to either of the precise devices above described.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of a sectional platform, a supporting-frame, and a locking mechanism acting against the uprights or sides of the elevator-well, substantially as described, so that whenever the strain on the hoisting-rope relaxes the weight of the sectional platform and of the load resting thereon brings the locking mechanism into action.

WILLIAM LIVINGSTONE.

W. HAUFF,
C. WAHLERS.