

(No Model.)

J. BYERS & G. TAYLOR.
ELEVATOR HATCHWAY GUARD.

No. 261,133.

Patented July 18, 1882.

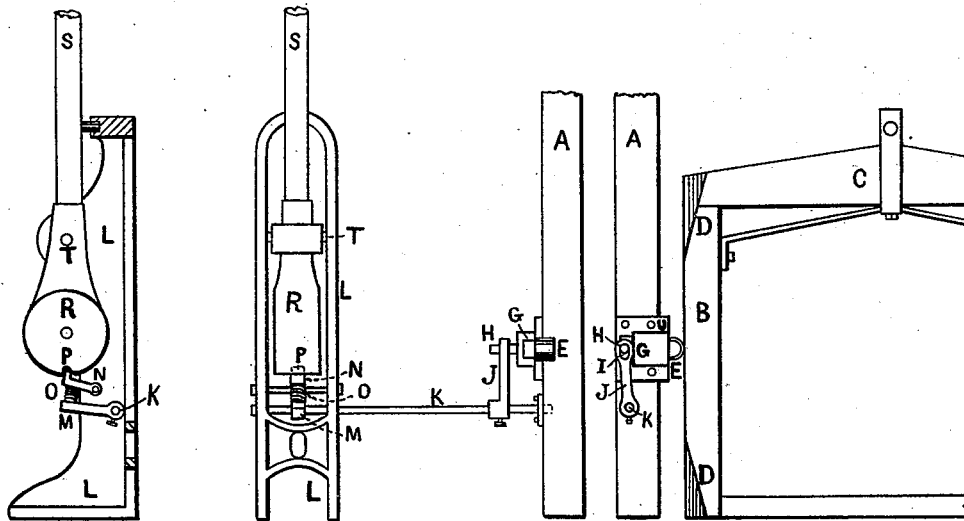


Fig. 1.

Fig. 2.

Fig. 3.

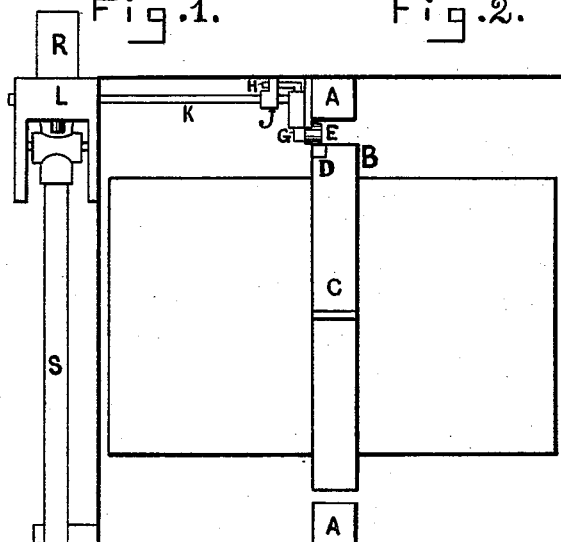


Fig. 4.



Fig. 5.

WITNESSES:

James. F. Dorsey
W. R. Marble

INVENTORS:

George Taylor ~
Joseph Byers ~
Dyvenus Walker ~
At Home

UNITED STATES PATENT OFFICE.

JOSEPH BYERS, OF NEWTON, AND GEORGE TAYLOR, OF EVERETT, MASS.

ELEVATOR-HATCHWAY GUARD.

SPECIFICATION forming part of Letters Patent No. 261,133, dated July 18, 1882.

Application filed April 17, 1882. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH BYERS, of Newton, and GEORGE TAYLOR, of Everett, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Elevator-Hatchway Guards, of which the following is a specification.

The object of our invention is to provide a cheap, simple, convenient, efficient, and durable automatic elevator-hatchway guard, which shall be actuated by the movement of the elevator up and down through the elevator-well, as heretofore; and it consists in the construction, combination, and arrangement of the several devices hereinafter more fully described, and set forth in the claims.

Figure 1 represents a sectional elevation of a hatchway-guard constructed according to our invention. Fig. 2 represents a front elevation of the same. Fig. 3 represents an elevation of one of the hatchway and elevator posts and frame and actuating-roll. Fig. 4 represents a plan of the device with the guard in position. Fig. 5 represents a detail of construction in section.

A represents the hatchway-posts of the elevator-well, extending vertically from top to bottom of same, as usual, and inside of which are the vertical elevator-supports B, connected rigidly together by the horizontal truss-beam C, as heretofore. The elevator-support B is formed at the upper and lower end portions D with a bevel; or its outer faces, near each end, incline so that when the elevator is passing up or down the well this incline face D will come in contact with the friction-roll E, provided at the end of the sliding horizontal bar G, which has an internal spiral spring, F, acting to force the said roll E against the said elevator-supports, or into the vertical plane thereof. At the opposite end of the said bar E is provided a horizontal projecting pin or stud, H, which projects into the slot or oblong hole I, formed in or near the upper end of the vertical arm J, the opposite end of which is secured to the horizontal rocker-shaft K. The latter has a journal-bearing at this end in the hatchway-post A, its opposite end having a journal-bearing within the vertical double flanged bar-support L, and has connected thereto the short horizontal arm M, provided at its

outer end with a short spiral spring, O, the upper end of which has a bearing against the under side of the rocker-dog N, pivoted at its rear end to post L, and provided with a vertical projection or hook end adapted to engage within the notch P, formed in the rear weighted end, R, of the pivoted swinging guard or bar S, when the same is turned up vertically, as shown in Figs. 1 and 2. The weight of the bar or guard S is just a trifle more than the counter-balance or weighted end R from the fulcrum or pivot T of the said guard, so that when the elevator passes up or down therefrom and the said friction-roll E passes or traverses over the incline face D of the elevator-support B, and is left free, the action of the spring F, inclosed within the box or case U, returning the said sliding bar G and friction-roll E to their former position in the vertical track of the said elevator-support B D, as shown, the bar S drops by its own weight, the latch N being released. Now, it will be seen and understood that when the said elevator bar or guard S is at rest in a horizontal position across an opening or passage-way to the elevator which has been stopped opposite such guard, the short sliding horizontal bar G is forced inwardly, thus operating the connecting-arm J, rocker-shaft K, and connected arm M, and thus compresses the vertical spring O, acting upon the outer end of the said pivoted dog N, until the said guard S is turned upward by hand into nearly a vertical position, when the notch P is brought opposite the end N of the said rocker-dog, which is forced therein, and thus retains the bar in position, as desired.

The counter-balance or weighted end R of the guard is constructed hollow or box-like, and provided with metal disks of various weights, which are removable, so as to adjust this end to correspond with the weight of guard S used, which necessarily must vary considerably, and to properly balance the same it has been the practice heretofore to change or adjust the pivotal bearings thereof to accomplish the desired result; but our device saves this extra expense and trouble.

Having thus described our invention, what we claim is—

1. The combination, with the elevator-sup- 100

port B, having the inclines D, of the horizontal sliding arm or bar G, provided with a spring, F, the vertical arm J, the horizontal rocker-shaft K, provided with the arm M, having the
5 spring O, and the rocking dog N, adapted to engage with the hatchway-guard R S, as and for the purposes set forth.

2. The combination, with the elevator-support B, having the inclines D, of the horizontal sliding bar G, provided with a friction-roll,
10 E, spring F, and suitable guard-latching mechanism, as and for the purposes set forth.

3. The combination, with the elevator-hatchway guard R S, of the rocker-shaft K, arm M, and spring-dog N, substantially as described, 15
as and for the purposes set forth.

JOSEPH BYERS.
GEORGE TAYLOR.

Witnesses:

SYLVENUS WALKER,
JAMES T. DORSEY.