(No Model.)

R. P. RANKIN.

AUTOMATIC ELEVATOR GUARD.

No. 288,113. Patented Nov. 6, 1883.

Fig. 1.

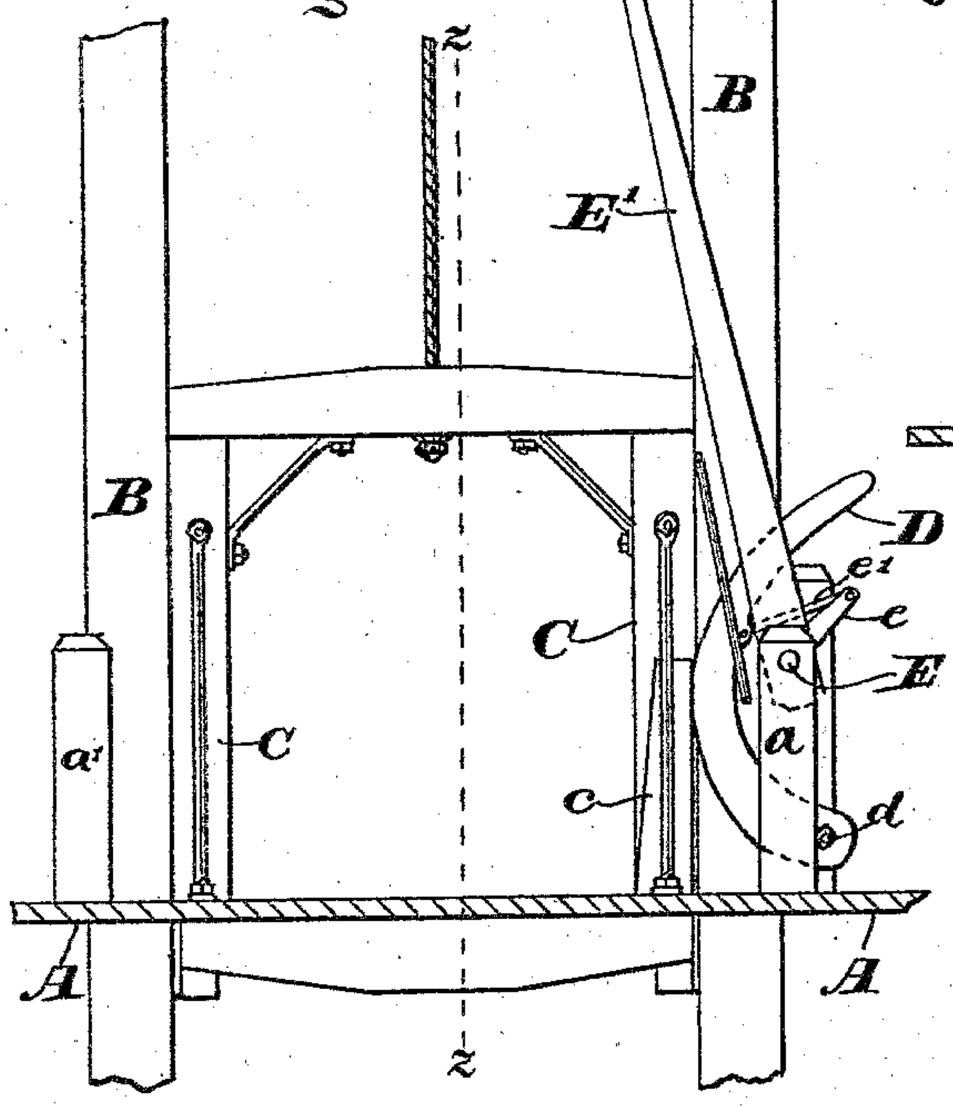


Fig. 2.

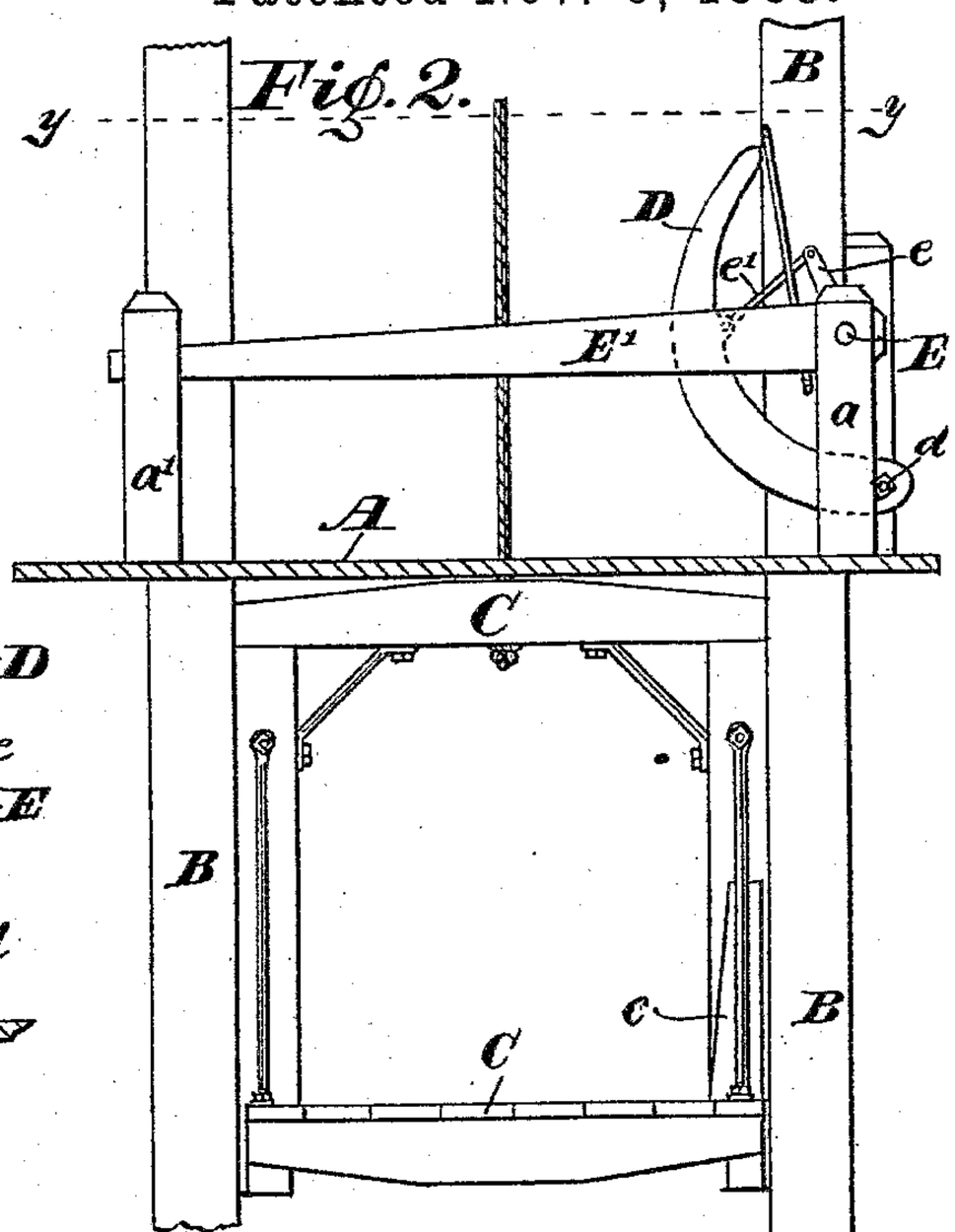


Fig. 3.

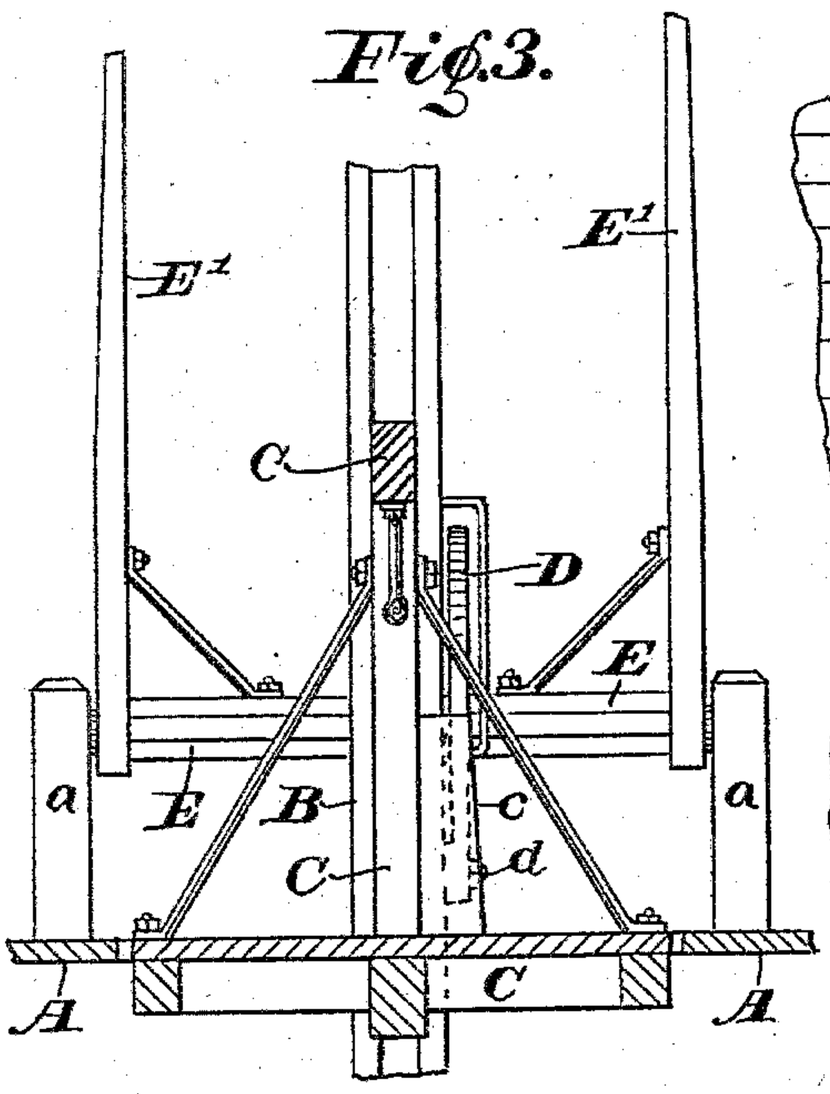
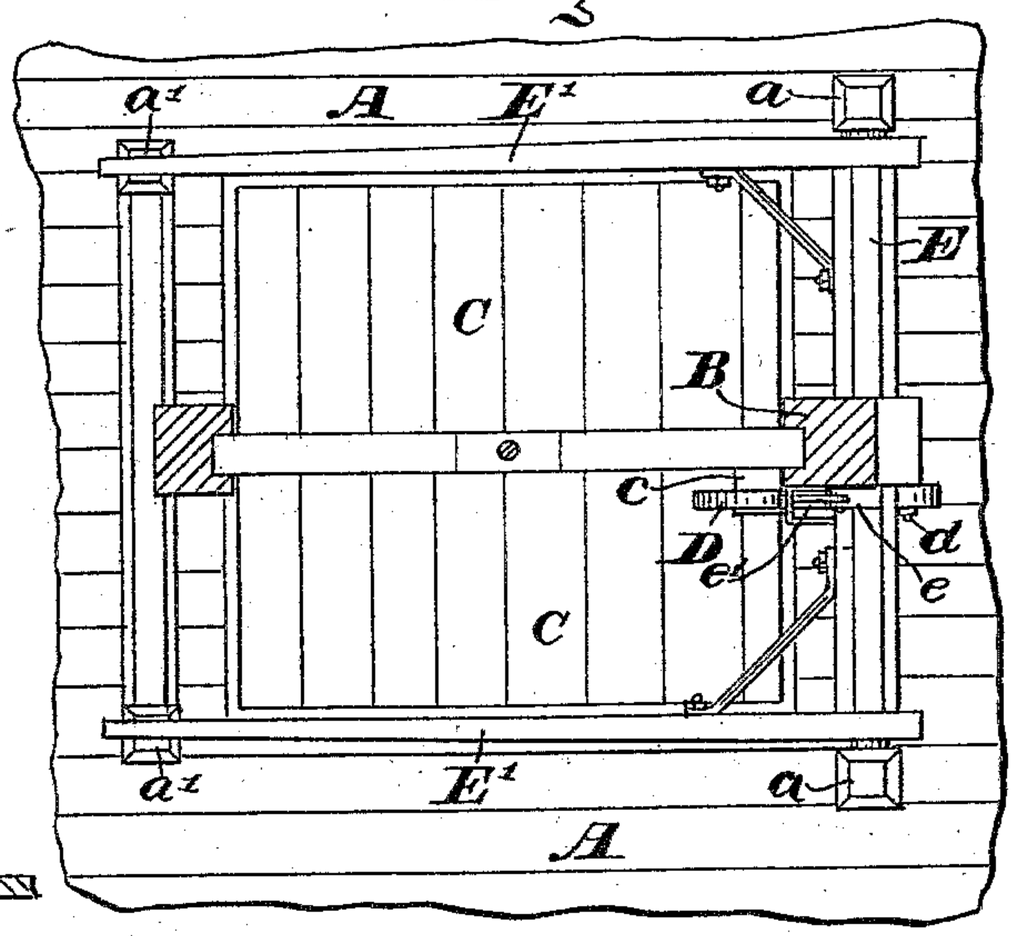


Fig. 4.



WITNESSES.

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AUTOMATIC ELEVATOR-GUARD.

SPECIFICATION forming part of Letters Patent No. 288,113, dated November 6, 1883.

Application filed January 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, ROBERT P. RANKIN, of the town of Clayton, county of Hendricks, and State of Indiana, have invented certain new and useful Improvements in Automatic Elevator-Guards, of which the following is a specification.

The object of my said invention is to provide a guard for elevator-hatchways which shall be operated by the elevator itself as it passes up and down. This object is accomplished by mounting in bearings alongside the elevator a rock-shaft provided with guard rails or arms which are adapted to be closed down in front of the elevator or be raised up as said shaft is partially rotated, attaching a cam-lever to said rock-shaft, and providing a strike upon the elevator, which will come in contact with said cam-lever, and thus operate said rock-shaft, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a front elevation of an elevator and so much of the posts and surrounding flooring as is necessary to illustrate my invention, the elevator being shown level with the floor and the guard-arms in raised position; Fig. 2, a similar view, showing the elevator below the floor and the guard-arms down; Fig. 3, a central vertical sectional view as seen when looking to the right from the dotted line *z z* in Fig. 1, and Fig. 4 a top or plan view of the several portions as seen when looking downwardly from the dotted line *y y* in Fig. 2.

In said drawings the portions marked A represent the floor or frame-work surrounding the elevator; B, the posts upon which the elevator slides; C, the elevator proper; D, the cam-lever, and E the rock-shaft.

The floor A is the ordinary floor of a building, provided with the usual hatchway for the elevator. Four posts are mounted thereon, two of which, *a a*, support the rock-shaft E, and two, *a' a'*, serve as rests for the free ends of the arms E'.

The posts B are similar to the ordinary posts for the purpose, and have the usu grooves or slides, in or upon which the elev tor proper runs.

The elevator C is or may be of any ord nary or approved form or construction. has a strike, *c*, which is adapted to come contact with the cam-lever D, and thus ope ate the guard as the elevator passes up a down.

The cam-lever D is pivoted at the bottom one of the posts B by a pivot-bolt, *d*, and adapted to be operated by the strike *c* on t elevator C.

The rock-shaft E is mounted in bearings the posts *a* and B, or in any other suitab manner, at a height corresponding to that which it is desired the guard-rails shall when closed. Guard rails or arms E' a rigidly attached to this shaft, which are rais or lowered by partially rotating the sam Said shaft has an arm, *e*, which is connecte by means of the link or rod *e'*, to the ca lever D, whereby said lever is enabled to pa tially rotate said shaft.

The operation of my said invention may recapitulated as follows: When the elevator above or below the floor, the mechanism is the position shown by Figs. 2 and 4, t guard-rails being down, and access to the elev tor-hatchway being thus cut off. When t elevator is raised or lowered, the strike *c* com in contact with the cam-lever D, swinging up, and, through the link *e'* and arm *e*, part rotating the rock-shaft E, which raises t guard-rails to the position shown by Figs. and 3, which permits free access to the elev tor. When the elevator is raised or lowere still farther and the cam is released from co tact therewith, the guard-rails are caused b their gravity to resume the position shown b Figs. 2 and 4. As will be noticed upon a examination of the drawings, the cam-lever so formed that it is operated equally well b the elevator in passing, without reference t the direction in which it is going.

It will be understood, of course, that whe the elevator is near the wall of a building only one of the guard-rails E' will be used and the rock-shaft E need in that case onl

xtend from the central post, B, to one of the osts *a*, and a common stationary railing can e used in place of the removed portion.

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

The combination of the elevator C, having riker *c*, with the standards *a*, rock-shaft E, ne extended arms E′, the curved cam-lever D, the link *e*′, and arm *e*, all arranged and operated substantially as shown and specified.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 4th day of January, A. D. 1883.

ROBERT P. RANKIN. [L. S.]

In presence of—

C. BRADFORD,

CHAS. L. THURBER.