

(No Model.)

E. BOND, Dec'd.

S. A. BOND, Administratrix.

HOISTING APPARATUS FOR ELEVATORS.

No. 258,011.

Patented May 16, 1882.

Fig. 1.

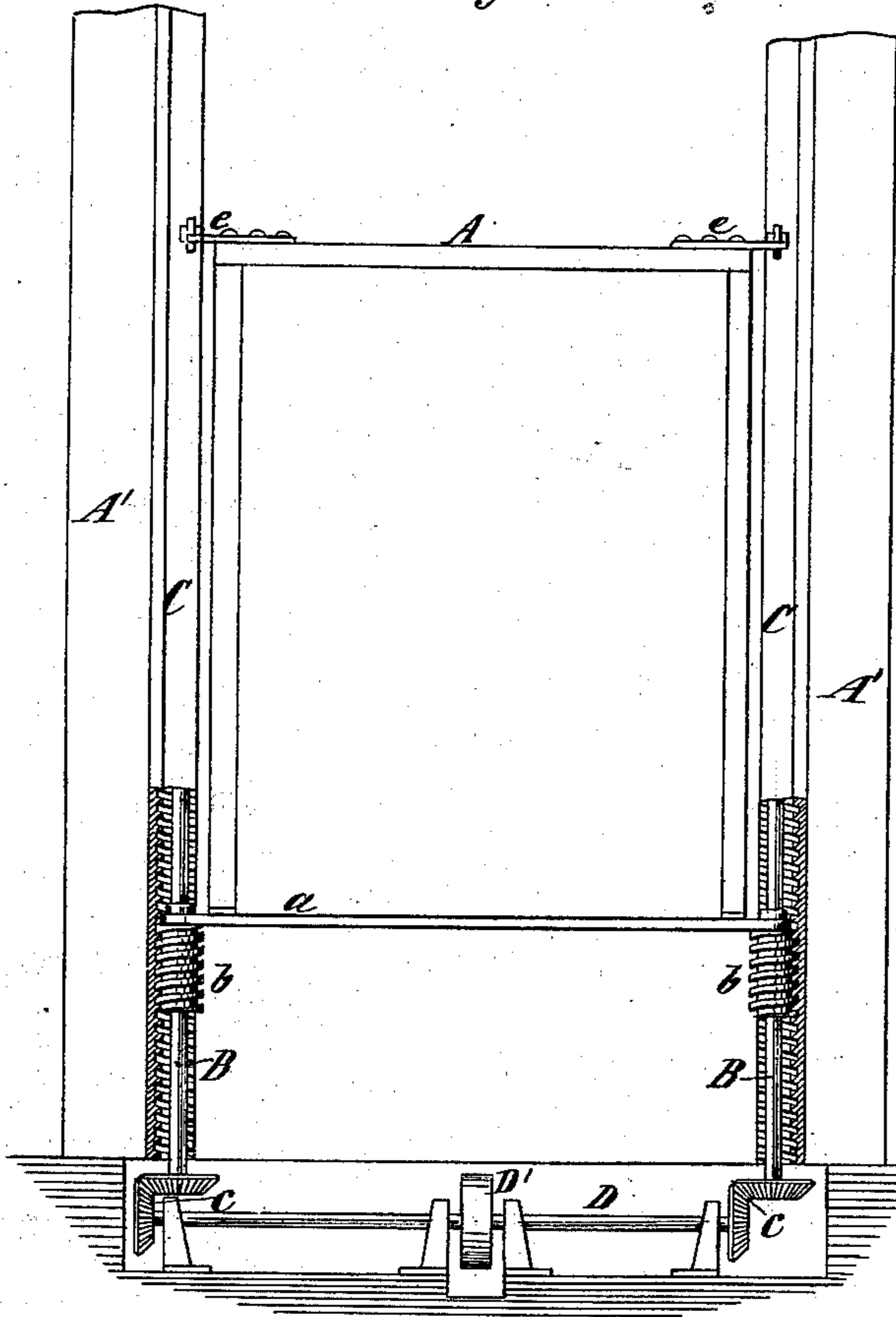


Fig. 2.

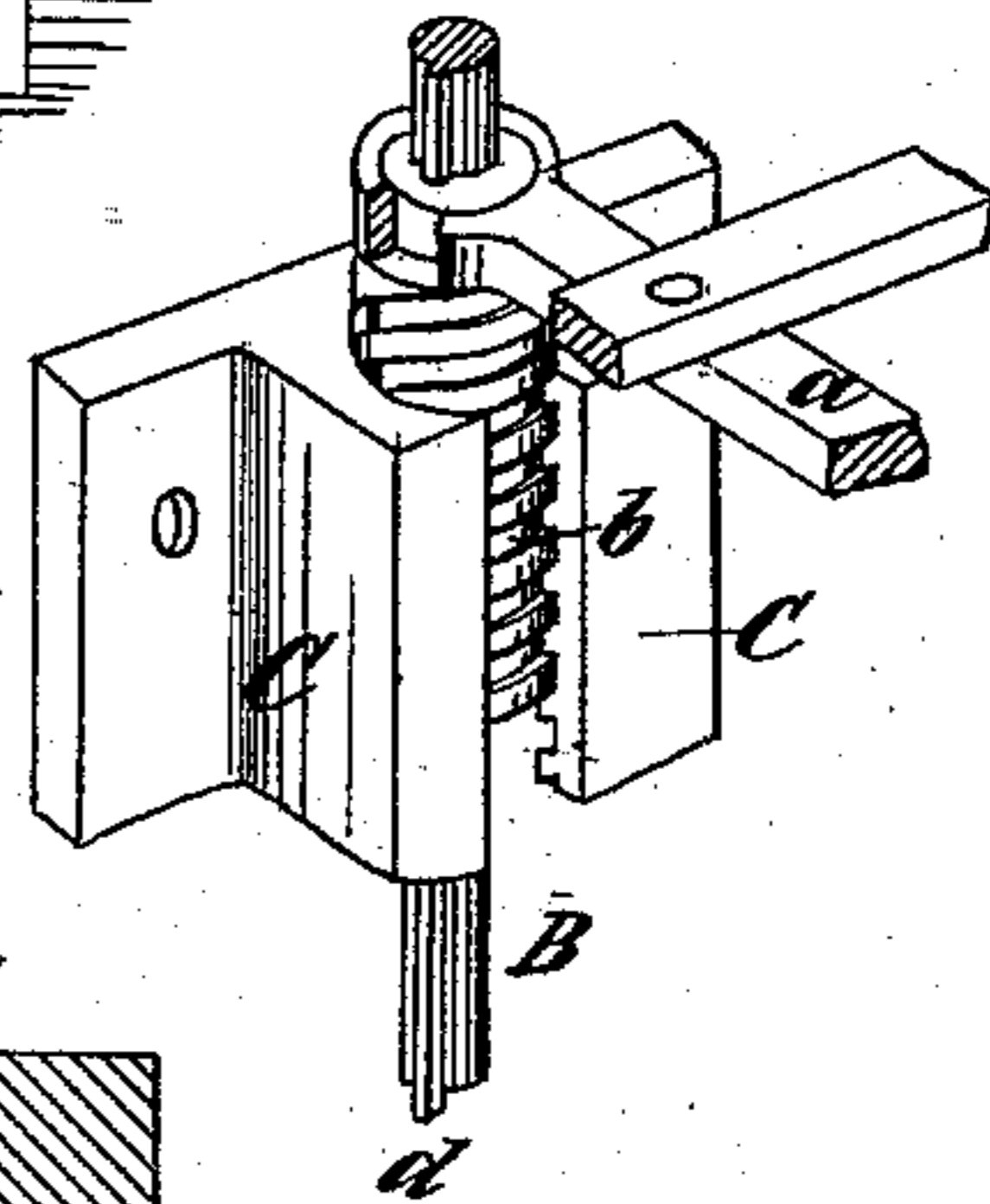
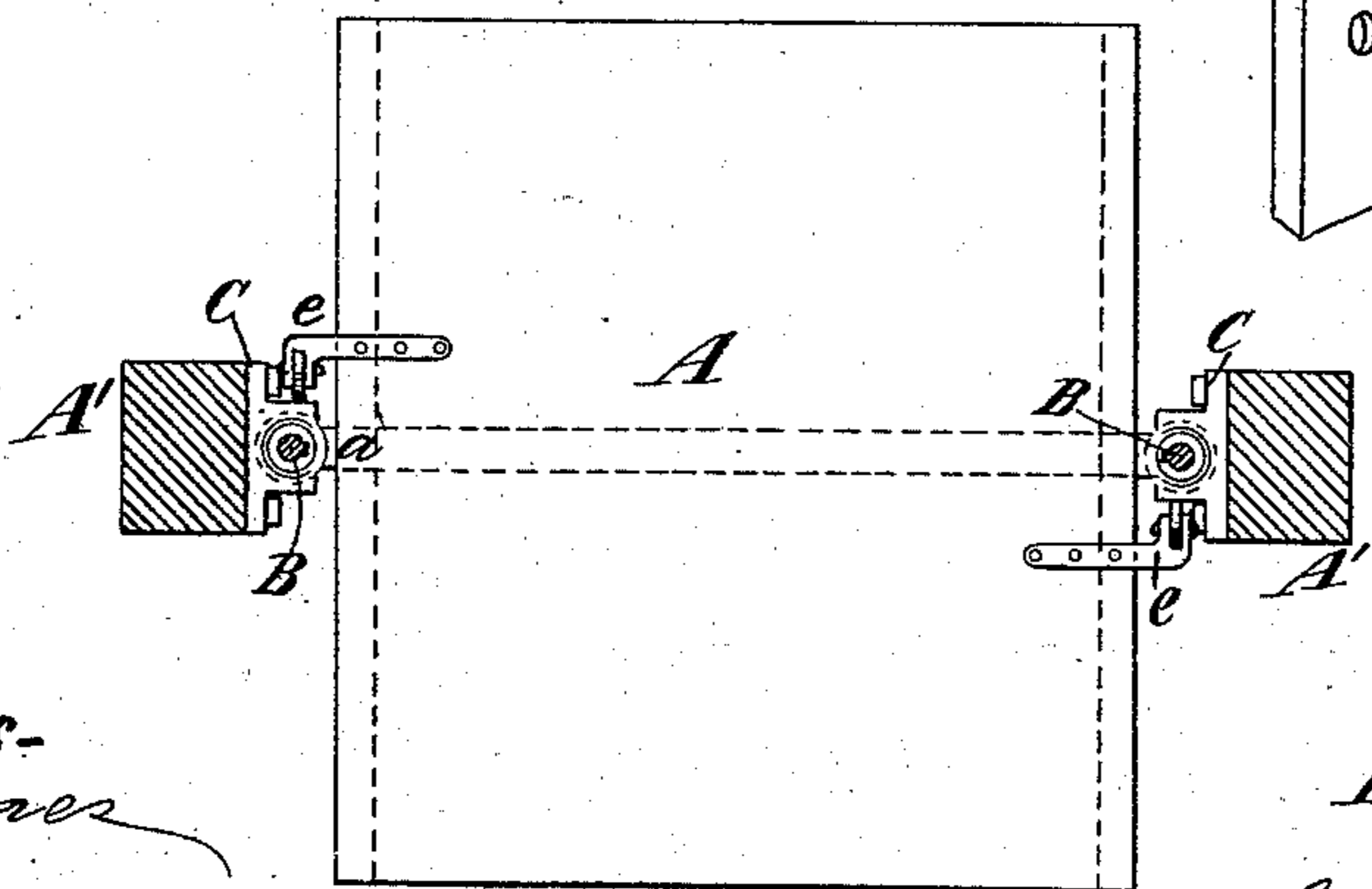


Fig. 3.



Witnesses-
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UNITED STATES PATENT OFFICE.

SUSAN A. BOND, OF BROOKLYN, NEW YORK, ADMINISTRATRIX OF EDWIN BOND, DECEASED.

HOISTING APPARATUS FOR ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 258,011, dated May 16, 1882.

Application filed March 13, 1882. (No model.)

To all whom it may concern:

Be it known that EDWIN BOND, deceased, late of Brooklyn, in the county of Kings and State of New York, invented certain new and useful Improvements in Hoisting Apparatus for Elevators, of which the following is a specification.

The object of the invention is to provide an effective apparatus for operating elevator platforms or cars which will support the platform or car safely at any point in its vertical travel, and will prevent the same from falling without the use of any so-called "safety-appliances," which are liable to get out of order and become inoperative in case of emergency.

The invention consists in the combination, with an elevator platform or car, of upright stationary nuts upon the uprights or guides between which the platform or car travels, upright shafts extending through said stationary nuts from end to end thereof, mechanism for rotating said shafts, and screws fitting said nuts and supporting said platform or car, and connected with said shafts each by a spline and groove, so that they may slide freely longitudinally upon the shafts as they are advanced by rotating in said nuts. The nuts may be slotted longitudinally on the front, and the platform or car supported by a bar which rests upon the upper ends of the two screws, and works up and down in the slots of the nuts.

In the accompanying drawings, Figure 1 represents an elevation partly in section of an elevator embodying the invention. Fig. 2 represents a plan thereof, with the uprights in section; and Fig. 3 represents a perspective view of a portion of one of the nuts, its screw, and a portion of the shaft upon a larger scale.

Similar letters of reference designate corresponding parts in all the figures.

A designates the elevator platform or car, and A' designates the uprights between which the platform or car travels upward and downward.

C designates nuts, which are secured in an upright position to the uprights or posts A', and which are screw-threaded throughout their length.

B designates shafts, which extend verti-

cally through the nuts C, and b designates two screws, which are fitted to work in the nuts C, and which are engaged with the shafts B each by a spline, d, on the shaft engaging with an internal groove in the screw, so that the screw may slide on the shaft. The screws b have a smooth cylindric portion at the upper end; and a designates a bar, which is fitted upon the cylindric portions of the screws, and extends between them. The bar a forms a part of or supports the elevator platform or car A, and the nuts C are slotted at the front, as clearly shown, so that the bar a may work up and down as the screws b are turned. It will readily be seen that as the screws b are turned in one direction or the other the platform or car will be raised or lowered, the screws b sliding freely on the shafts B, and in whatever position the platform or car is stopped it will be safely supported. It will also be seen that there is no possibility of the platform or car falling, and this result is attained without the use of any of the so-called "safety-appliances," which are liable to get out of order and become inoperative when the emergency arises for which they were intended.

Below the elevator-shaft is a horizontal driving-shaft, D, to which rotary motion may be imparted by a belt over a pulley, D', or by any other suitable gearing, and which is connected with the two shafts B by bevel-gearing c. Hence it will be seen that as the shaft D is rotated the shafts B will also be rotated in unison and in the same direction.

The upper part of the platform or car A is provided with guides e, which run upon the exterior of the nuts C.

What is claimed as the invention, and is desired to be secured by Letters Patent, is—

1. The combination, with an elevator platform or car, of upright stationary nuts upon the uprights or guides between which said platform or car travels, upright shafts extending through said stationary nuts from end to end thereof, mechanism for rotating said shafts, and screws fitting said nuts and supporting said platform or car, and connected with said shafts each by a spline and groove, so that they may slide freely longitudinally upon said shafts

as they are advanced by rotating in said nuts, substantially as specified.

2. The combination of the upright stationary nuts C, slotted at the front, the shafts B, arranged in and extending from end to end of said nuts, the screws b, connected with said shafts by splines and grooves, so as to slide freely thereon when advanced by rotating in

said nuts, and the bar a, supported by said screws and working up and down in the slots in said nuts, substantially as specified. 10

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