

G. A. GRAY, Jr.
Safety Attachment for Elevator.

No. 211,152.

Patented Jan. 7, 1879.

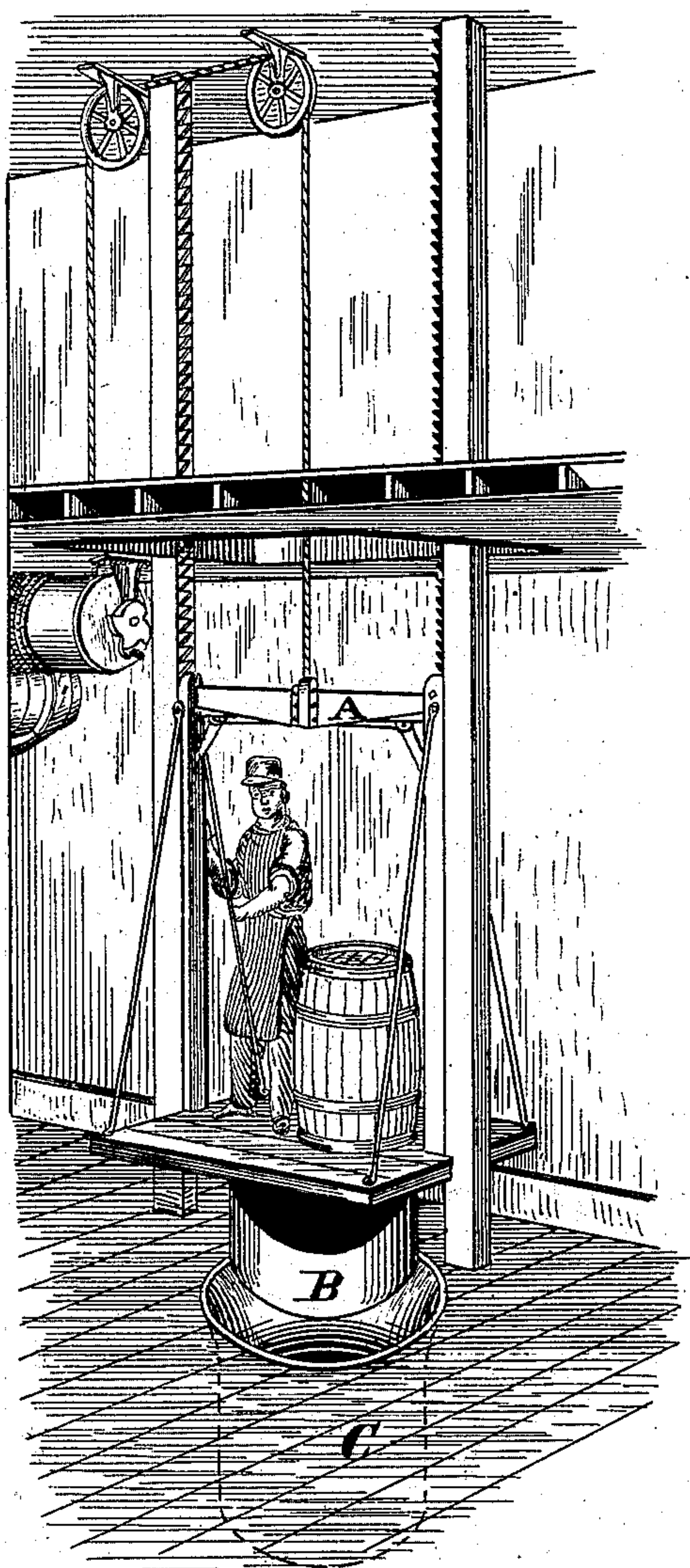


Figure 1

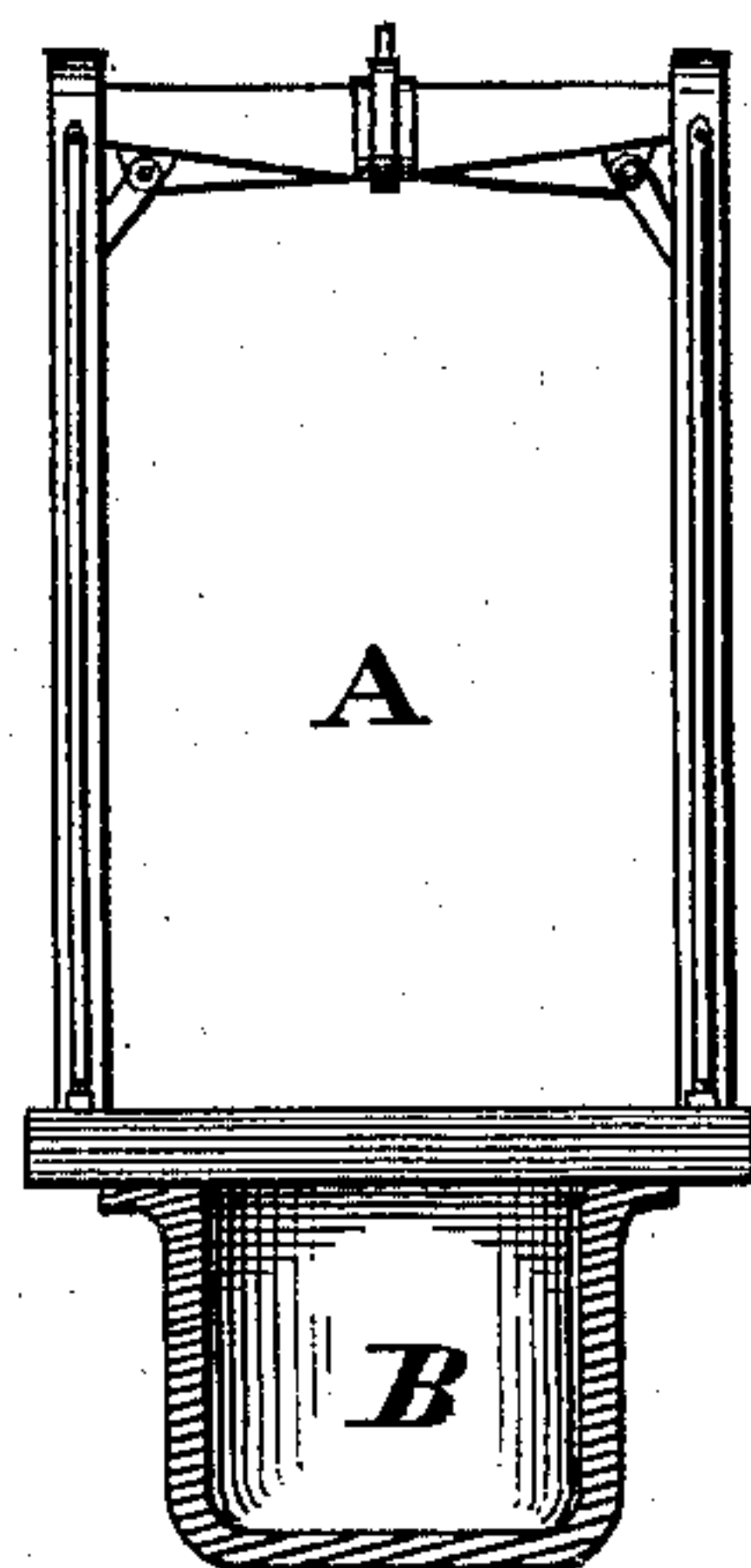


Figure 2

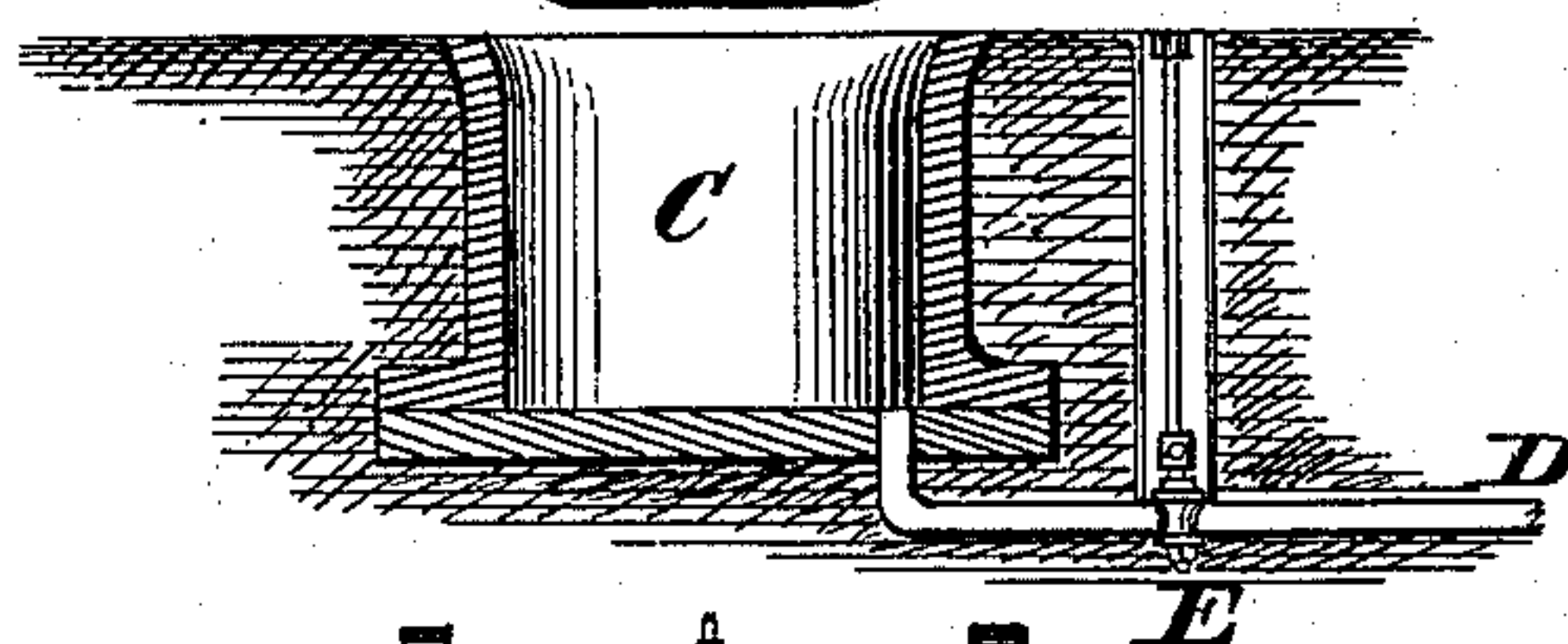
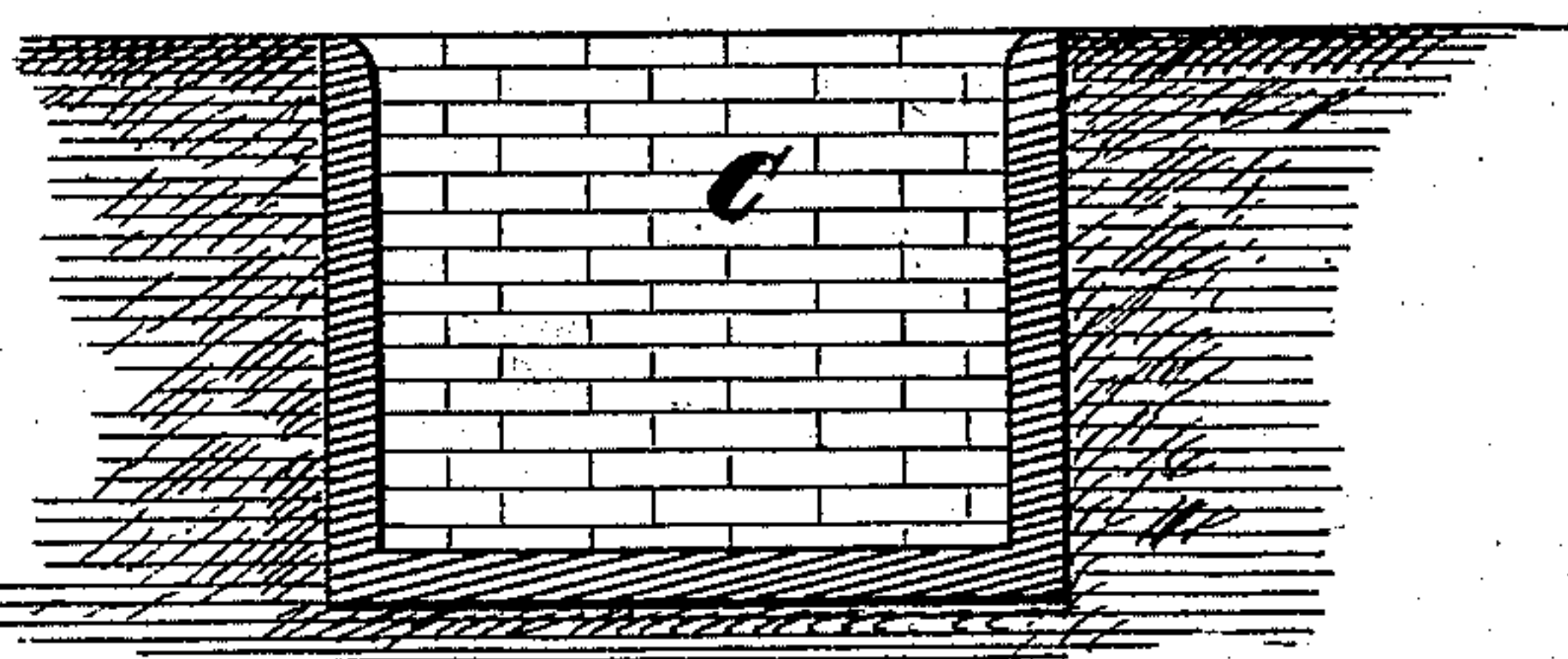
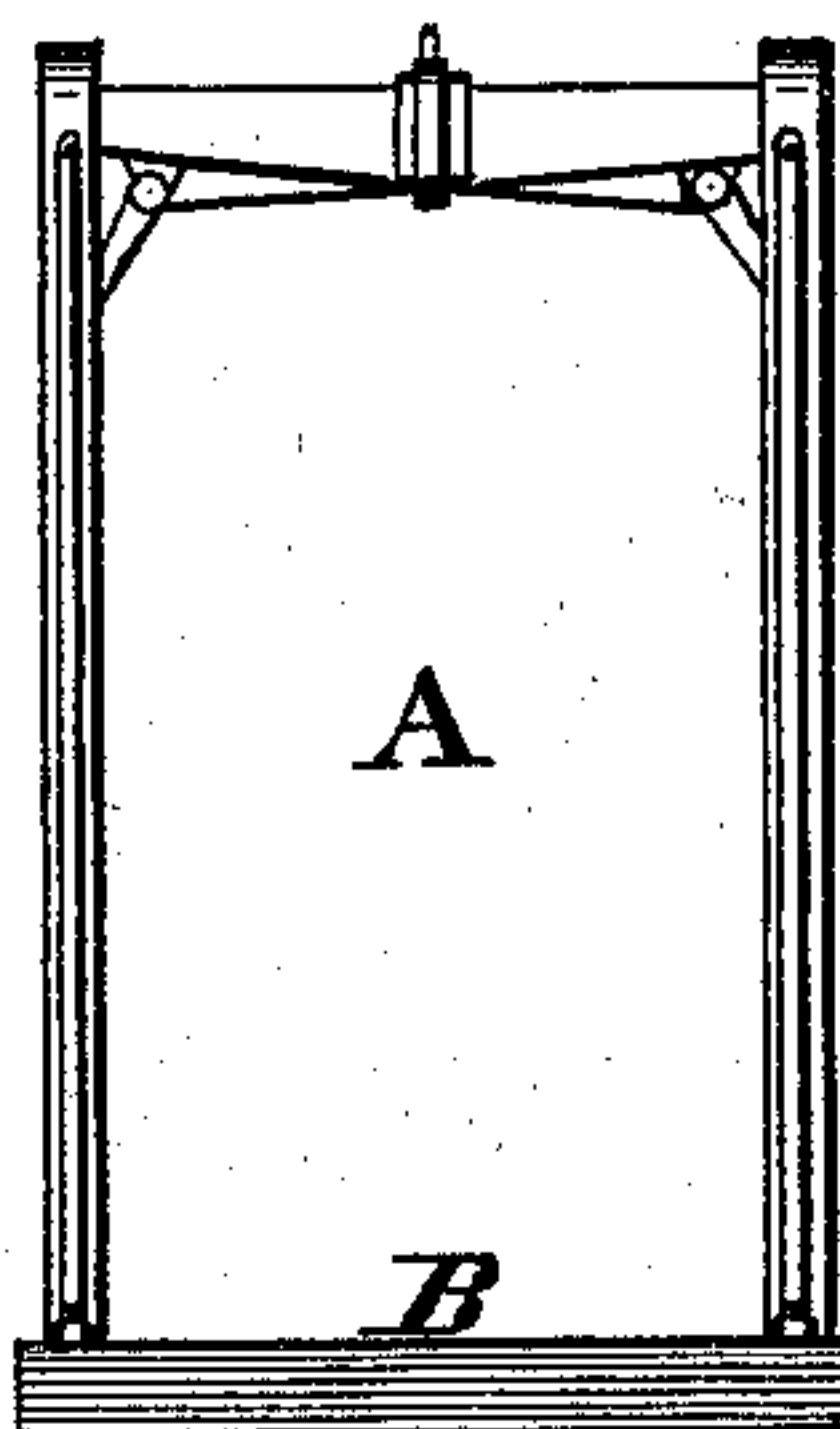


Figure 3



Attest
E. Dewald.
C. T. Shobel

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by
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UNITED STATES PATENT OFFICE.

GEORGE A. GRAY, JR., OF COVINGTON, KENTUCKY.

IMPROVEMENT IN SAFETY ATTACHMENTS FOR ELEVATORS.

Specification forming part of Letters Patent No. **211,152**, dated January 7, 1879; application filed May 10, 1878.

To all whom it may concern:

Be it known that I, GEORGE A. GRAY, Jr., of Covington, in the county of Kenton and State of Kentucky, have invented certain new and useful Improvements in Safety Attachments for Elevators, of which the following is a specification:

My invention relates to safety devices to be attached to elevators for the purpose of saving life and property; and consists in the combination, with the elevator-cage and an air-reservoir arranged thereunder, of a piston secured to the bottom of the cage, and composed of a hollow continuous inclosed shell, whereby the minimum weight is added to the cage, and an equal efficiency of action with a solid piston is secured, as the entire bottom or head of the piston opposes resistance to the air-cushion immediately on entering the air-reservoir; also in the combination, with the piston arranged under and attached to the bottom of an elevator-cage, and an air-reservoir adapted to receive said piston, of a tube or passage leading from the bottom of said reservoir, and supplied with a cock, by means of which the escape of air from said reservoir may be regulated as desired and to suit the weight of the cage.

In the accompanying drawings, Figure 1 is a perspective view of an elevator with my safety attachment made thereto. Fig. 2 represents a cage in elevation, with my device attached and shown in section; and Fig. 3 is a sectional elevation, representing a modification of the same device, in which the platform descending enters a pit incased with brick, wood, or other suitable material.

Letters of like character represent corresponding parts in each of the figures.

In general the top of the air-chamber C would be on a level with the lowest floor to which the cage A descends, and when constructed as shown in Fig. 3 would be of about the same lateral dimensions as the cage-platform, and may be made from two to six feet in depth, according to the height of the building through which the elevator-platform ascends and the weight to be raised, and should be made bell-mouthed, so as to insure the proper entry of the descending platform.

In Fig. 2, a piston, B, is shown as depending from the platform of the cage A, and a cylinder, C, of nearly equal diameter—or, in other words, in which the piston B would be a loose fit—is inserted in the ground, and is provided with a pipe, D, and faucet E. This pipe and faucet may be used to assist in regulating the outflowing air from the cylinder C, and if connected with a suitable drain will keep the cylinder or air-chamber entirely free from water.

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

1. The combination, with the cage A and air-reservoir C, of the piston B, consisting of a continuous inclosed shell, substantially as and for the purpose set forth.

2. The combination, with the cage A, having piston B, and the air-reservoir C, of the air-passage D, provided with the cock E, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand this 2d day of May, 1878.

GEORGE A. GRAY, JR.

Witnesses:

HARRY MILLWARD,
R. B. WILSON.