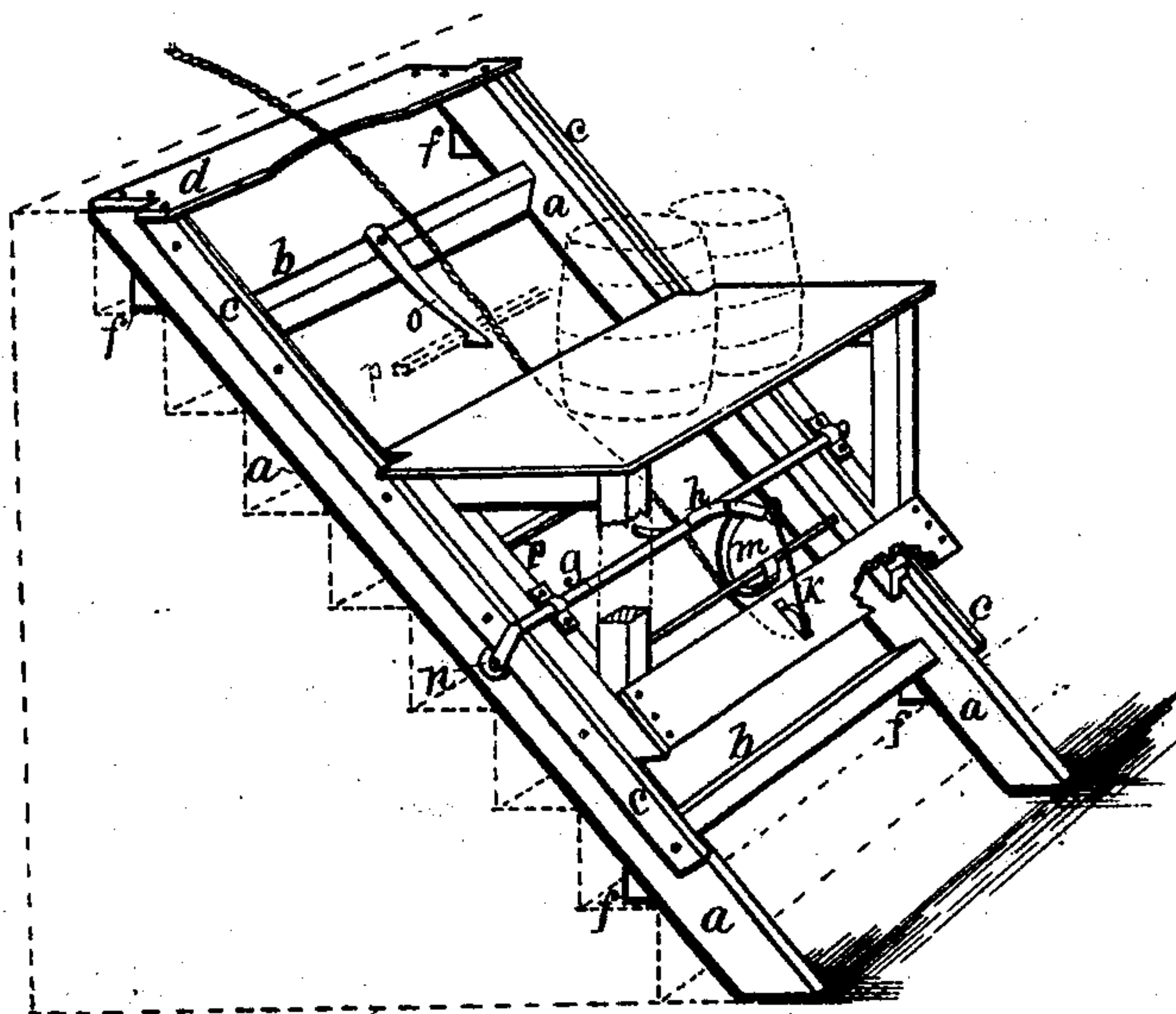


R. SEEBURGER.
Elevators.

No. 152,013.

Patented June 16, 1874.



Witnesses.
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UNITED STATES PATENT OFFICE.

RAIMUND SEEBURGER, OF DES MOINES, IOWA.

IMPROVEMENT IN ELEVATORS.

Specification forming part of Letters Patent No. **152,013**, dated June 16, 1874; application filed April 13, 1874.

To all whom it may concern:

Be it known that I, RAIMUND SEEBURGER, of Des Moines, in the county of Polk and State of Iowa, have invented a Portable Elevator for Stairways, of which the following is a specification:

The object of my invention is to provide a portable elevator that can be placed on a cellar stairway or any other support, and easily operated by one or more persons, to raise and lower boxes and barrels of merchandise, and all kinds of articles and packages too heavy to be carried. It consists in the manner of forming, combining, and co-operating a skid and a truck, as hereinafter fully set forth.

My drawing is a perspective view, illustrating the construction, application, and operation of my invention.

a a represent the parallel beams of the skid. They may vary in dimensions and weight to suit different places and purposes. *b b* are the cross-pieces by which the beams are framed together. *c c* are guard and track rails, secured in any suitable way to the outsides of the beams *a*, in such a manner that they will project laterally from the beams, and also above the top edges of the inclined beams. *d* is a top end cover, hollowed out on its front edge, and rigidly attached to the ends of the beams. *f f* are triangular blocks rigidly attached on the under sides of the beams, and near their upper and also lower ends, and serve as rests or catches to retain the skids on the steps of the stairway or other supports that may be used to hold them in an inclined position. *A* represents a truck of triangular form. It may be framed together in any suitable manner, and may vary in size to suit skids of different dimensions. *g* is a rock-shaft journaled to the inclined base of the truck-frame in any suitable way. The truck-frame may be wood and the bearings for the rock-shaft attached; or the truck-frame may be cast with bearings formed and fitted in the metal. *h* is an arm projecting in opposite directions from the middle of the shaft *g*. *k* is a rope attached to the end of the arm *h*, and passes downward over the pulley *l*, which is mounted in and carried by a cross-piece on

the truck *A*, and from thence the rope *k* passes up over the skid-top *d*. *m* is a spring supported by a cross-piece spanned between the beams *a a*, and serves to hold up the arm *h*. *n* is a traveling pulley that has its bearing in the end of the rock-shaft, which is bent down at right angles on the outside of the skid and track-rail *c c*. A corresponding pulley is carried in the same way on the opposite end of the shaft. *o* is a spring-catch projecting downward from the upper cross-piece *b*, and is designed to engage the bar *p*, spanned across the base of the truck-frame *A*. *r* represents a turn-button or pawl, *a*, series of which may be used to arrest and hold the truck *A* at different points on its passages up and down.

In the operation of my portable elevator, the skid is placed on the stairs in a position that will allow the blocks *f* to rest upon the steps. The truck is then placed at the lower end and in position to allow the traveling pulleys *n* to pass under the track-rails *c c*. The rope *k k* is passed up over the top of the skid, or it may be passed up and then returned over a pulley attached at the top of the stairway. Pulling on the free end of the rope will draw the truck *A* and its contents to the top of the skid, and the spring *o* will seize the bar *p* and hold the truck on a level with the top of the skid to allow its freight to be removed. In the same position the truck may be loaded to descend, and to free it from the catch *o* it is only necessary to pull on the rope *k*, the lower end of which is passed over the pulley *l*, and attached to the upper end of the arm *h* on the shaft *g*. Pulling the rope draws down the top end of the arm *h* and elevates the lower end of the same arm, which will strike the point of the spring-catch *o* and disengage it from the bar *p* and free the truck. The force applied to the rope *k* and communicated by the arm *h* to the rock-shaft *g* presses the pulleys *n* against the under sides of the track-rails *c c*, and causes friction to counterbalance the weight of the load on the truck. Flanges on the insides of the base of the truck-frame serve to guide it in its passages up and down over the inclined beams

a a. The pressure of the weight on the truck is in a perpendicular line downward, and is distributed by the inclined base of the truck to the beams *a a*, and consequently descends gradually.

By means of the rope, and the pulleys carried by the rock-shaft and the track-rails, a friction or brake force can be used to govern the descent of the loaded truck, and to prevent accidents. The platform of the truck is always level, and an open vessel full of fluid can be carried up and down the incline in an upright position without spilling contents.

I claim as my invention—

1. The skid *a a b b*, having the track-rails *c c*, the cover *d*, the blocks *f*, and the spring-

catch *o* attached, substantially as described, and for the purposes specified.

2. The triangular truck *A*, carrying the rock-shaft *g*, arm *h*, rope *k*, pulley *l*, spring *m*, pulleys *n*, and bar *p*, substantially as described, and for the purposes specified.

3. The combination of a portable skid, having projecting track-rails *c c*, with a triangular truck having brake-pulleys *n*, carried by a rock-shaft, *g*, substantially as described, and for the purposes specified.

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Witnesses:

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