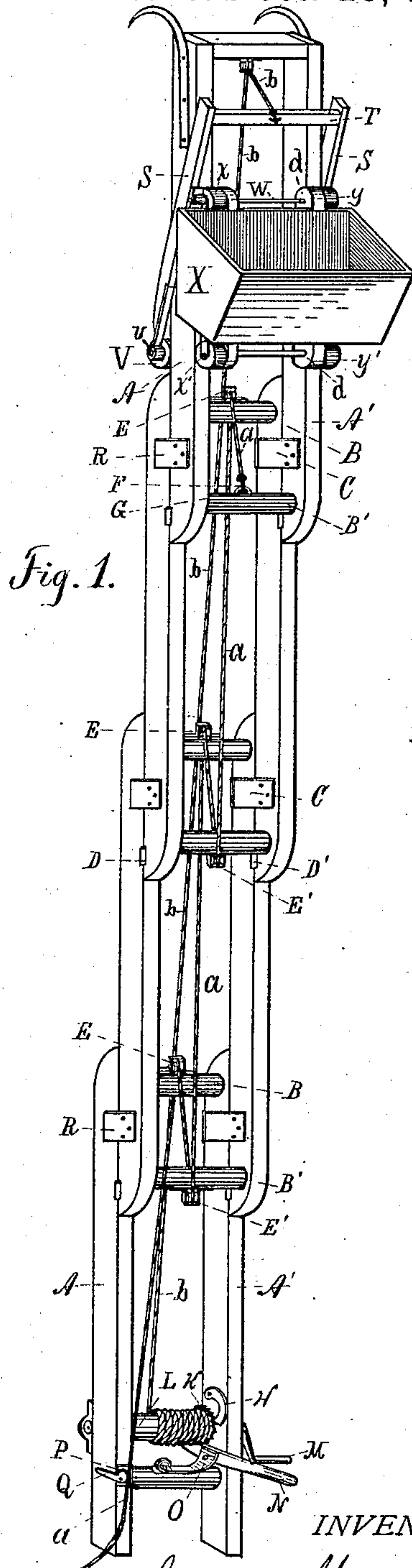
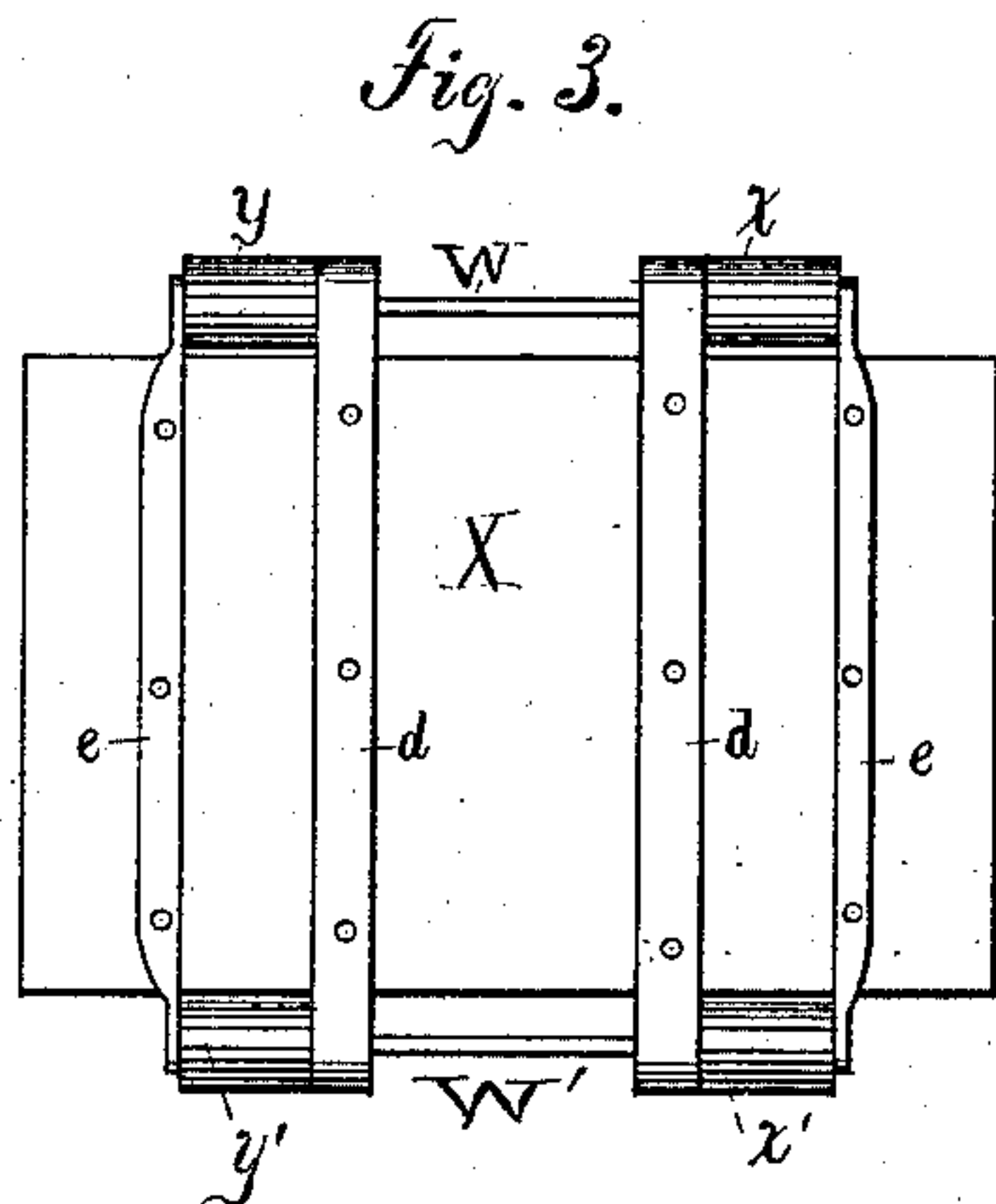
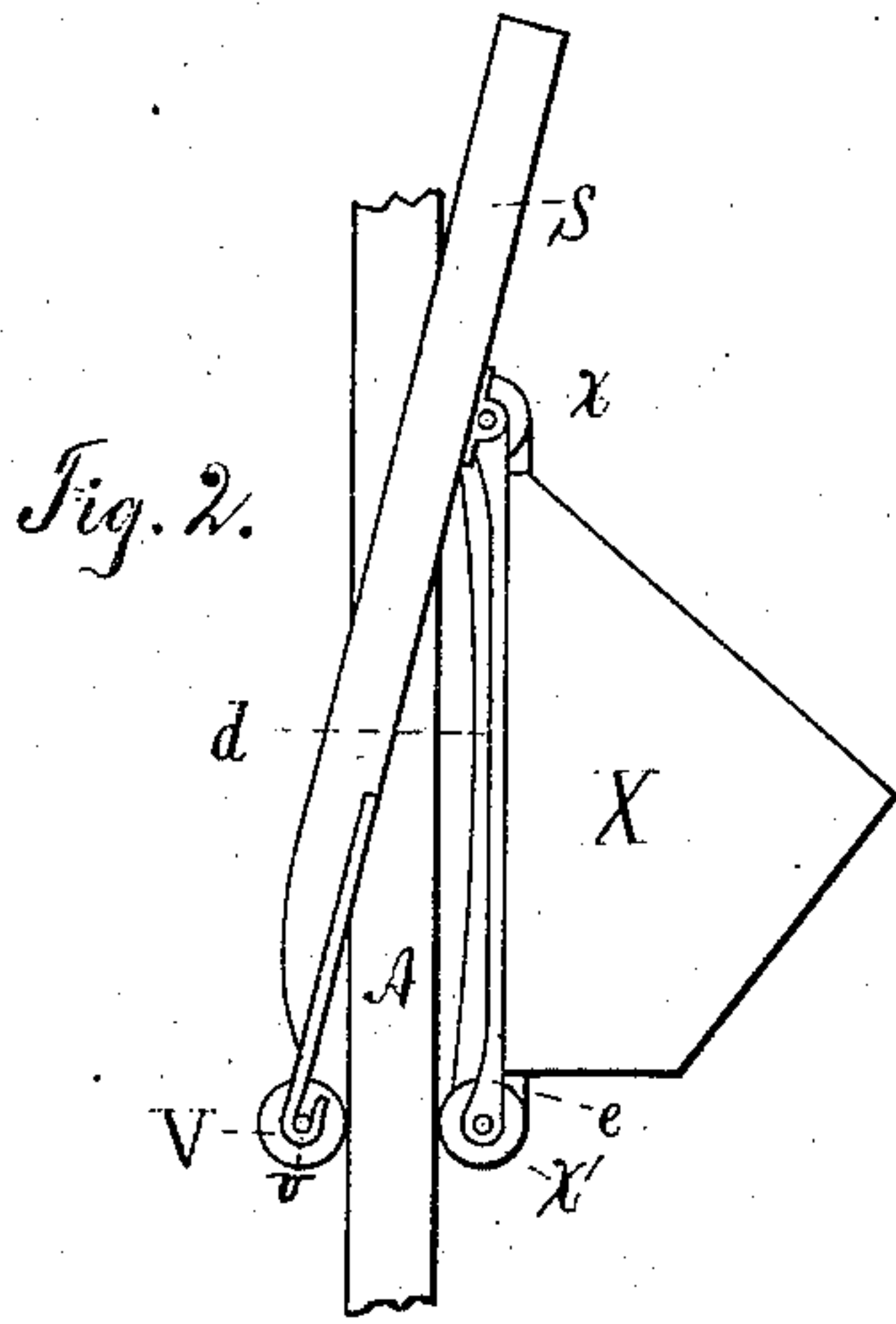


(No Model.)

G. MILLIKEN.
ADJUSTABLE ELEVATOR.

No. 287,042.

Patented Oct. 23, 1883.



WITNESSES:

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GEORGE MILLIKEN, OF ONECO, ILLINOIS.

ADJUSTABLE ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 287,042, dated October 23, 1883.

Application filed April 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE MILLIKEN, a resident of Oneco, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Adjustable Elevators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention is a new and improved portable and adjustable elevator for raising and lowering loads of any sort in situations where a permanent stationary elevator is not desirable. It is especially adapted to the raising of brick, mortar, or other material in the construction of buildings, or to the lowering of the inmates of the upper rooms of a building in case of fire. The details of its construction are fully shown in the accompanying drawings, and the device is described and explained in the following specification.

In the drawings, Figure 1 is a perspective view of the entire machine; Fig. 2, a side elevation of the elevating car or basket, and Fig. 3 a rear elevation of the same.

In these views, A A A' A' are the side pieces of a series of rectangular sections connected by means of suitable clamps, C R, by means of which they are adapted to slide longitudinally one upon another. Each pair of side pieces A A' is connected at the top by a round, B, and at the bottom by a similar round, B'. A rope, *a*, runs through suitable pulley-blocks, E, attached to the rounds B, and similar blocks, E', attached to the rounds B', and is securely fastened at one end to the lower round, B', of the topmost of the sliding sections. A windlass, L, is journaled in suitable bearings attached to the side pieces of the lowest of said sliding sections, and the rope and windlass are provided with a hook and eye or other means by which the end of the rope may be readily attached to or detached from the windlass. A ratchet, K, serves to hold the windlass in any desired position. It is evident that if the rope *a* be hooked to the windlass and wound thereon by turning the crank M, the sections will slide longitudinally one upon the other, and the entire structure be lengthened or raised, and that the unwinding of the rope will lower the sections and shorten the machine. A

clamp or grip, Q, is attached to the lower section, and when the frame has been raised to the desired height the rope *a* may be detached from the windlass and secured in this clamp, as shown in Fig. 1. A second rope, *b*, provided with a hook, by means of which it can be readily attached to or detached from the windlass, extends through the entire length of the elevator, passes through a pulley-block attached to the upper-cross-bar of the topmost sliding section, and is fastened at the end to the cross-bar T of a frame, S S, which supports a car or basket, X. The side pieces S S of this frame are outside of the side pieces A A' of the sliding sections and extend diagonally across them. Their upper ends are in front of the sections and are united by the cross-bar T, while their lower ends are in rear of the sections and terminate in open hooks *v*. These hooks are the bearings of a shaft extending across the sections in rear thereof, and on this shaft are mounted two rollers, V, one immediately in rear of each side piece of the section and adapted to roll thereon. The basket X is provided with two pairs of vertical cleats, *d e*, rigidly attached to it, and through the upper and lower ends of these cleats pass the horizontal shafts W W', on which are mounted rollers *x y x' y'*, which are in contact with the front faces of the side pieces of the sliding sections and roll thereon. The bar W is journaled in suitable bearings attached to the side pieces S S, and forms a pivotal or hinge joint between said side pieces and the basket X. By means of this hinge-joint the distance between the rollers *x' y'* in front of the sliding sections and the rollers V in rear thereof may be readily increased or decreased, and the basket and frame S S are thus enabled to pass up and down the ladder or supporting-frame without obstruction from the joints of the sliding sections. The basket is hung in such a way that any weight placed in it tends to press the rollers V *x' y'* closer against the ladder; but no matter what the weight may be the rollers swing apart readily in passing over the joints and close together again after passing them. By means of the open-hook bearings *v* the rollers V and their shaft may be readily removed, when the frame S S swings forward and may be readily removed from the ladder, taking with it the basket X.

It is evident that if the rope *b* be attached to the windlass the basket X may be raised or lowered at pleasure, and also that if the rope *a* be attached to the windlass the frame or ladder may be lengthened or shortened by turning the crank M forward or backward.

A brake, N, serves to regulate the speed of the windlass in lowering the basket, or the ladder itself, and two hooks attached to the topmost section of the ladder afford means for attaching it to or suspending it from any permanent support on the wall of a building.

It is plain from the construction of the ladder and basket that the latter may be raised and lowered equally well, whether the former is in a vertical or oblique position.

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

1. In an adjustable elevator, the combination of a series of sliding sections forming an adjustable frame or ladder, a rope attached to said sections and adapted to raise or lower them, a basket sliding upon said frame, a rope attached to the basket for the purpose of rais-

ing or lowering it, a single windlass, by means of which said ropes are separately coiled and uncoiled, and means by which one of said ropes may be held independently of the windlass while the other is coiled or uncoiled.

2. The combination of the frame S S, basket X, hinged thereto, rollers V, attached to said frame, and rollers *x y x' y'*, attached to said basket, all combined and operating substantially as described.

3. The combination of the frame S S, open-hook bearings *v*, attached thereto, and rollers V and their shaft, adapted to be readily inserted in or withdrawn from said bearings, substantially as and for the purpose set forth.

4. The combination of the ropes *a b*, windlass L, and clamp Q, constructed and operating substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE MILLIKEN.

Witnesses:

OSCAR TAYLOR,
R. H. WILES.