

(No Model.)

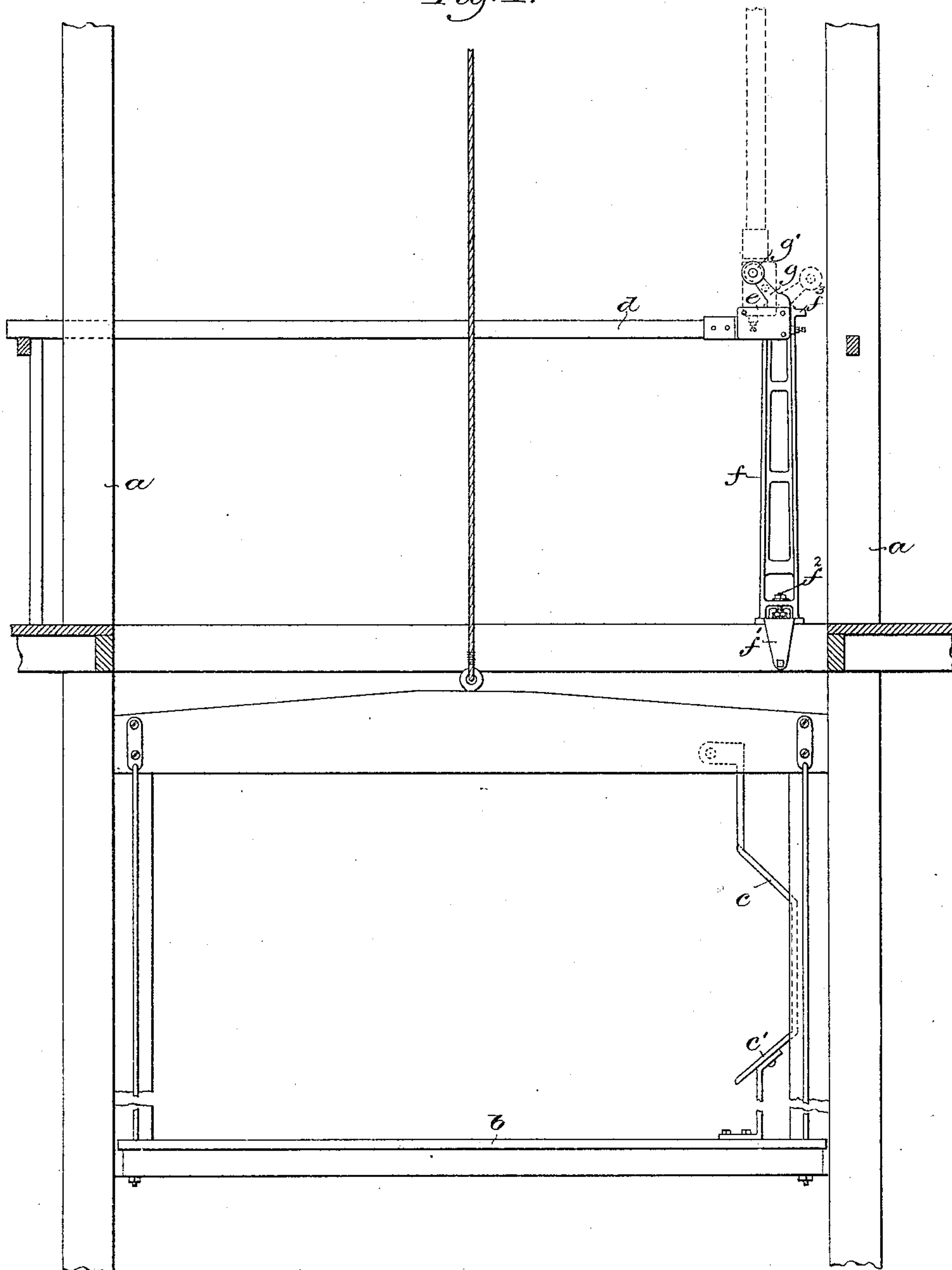
2 Sheets—Sheet 1.

W. O. TAYLOR.
ELEVATOR GUARD.

No. 438,294.

Patented Oct. 14, 1890.

Fig: 1.



Witnesses.

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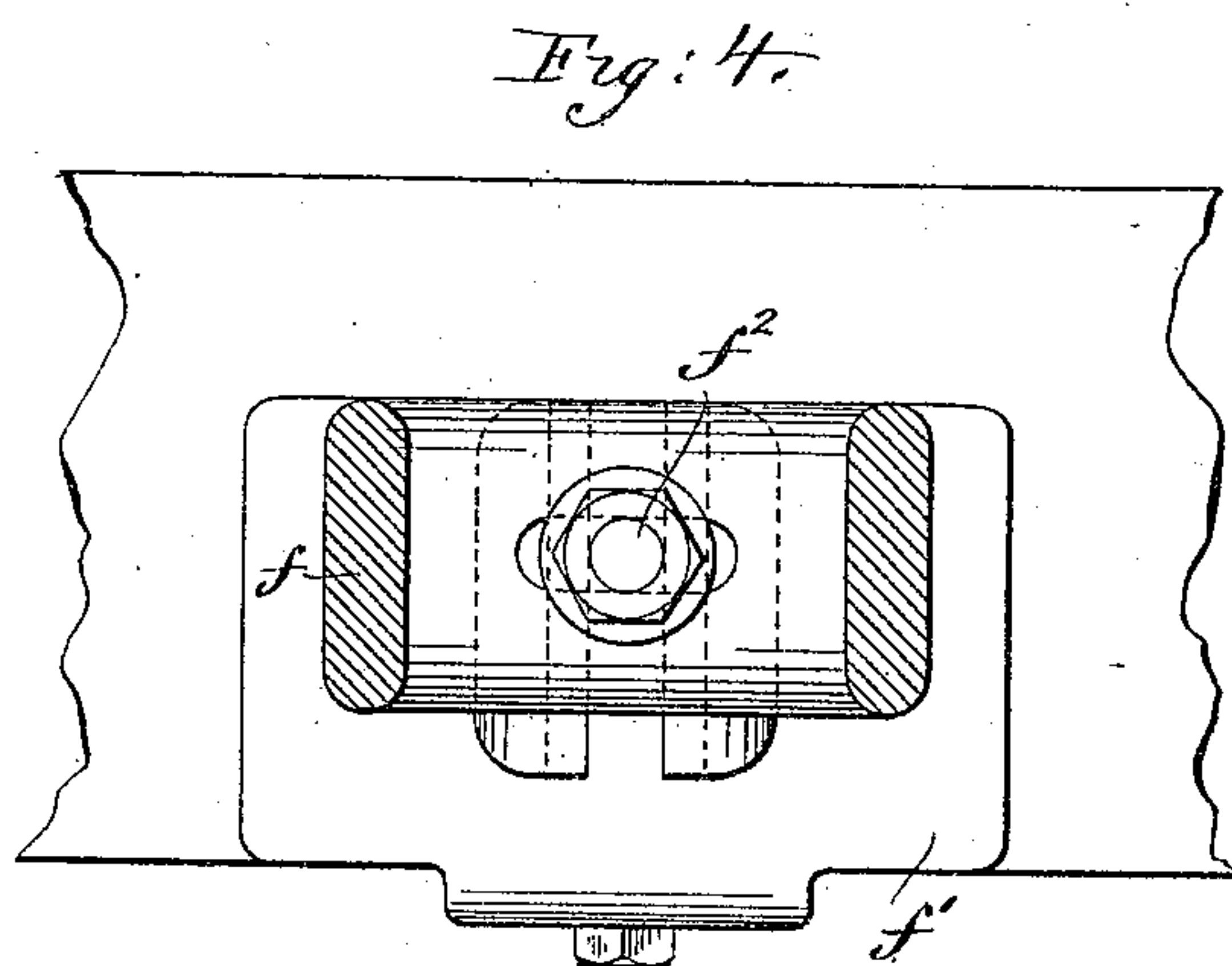
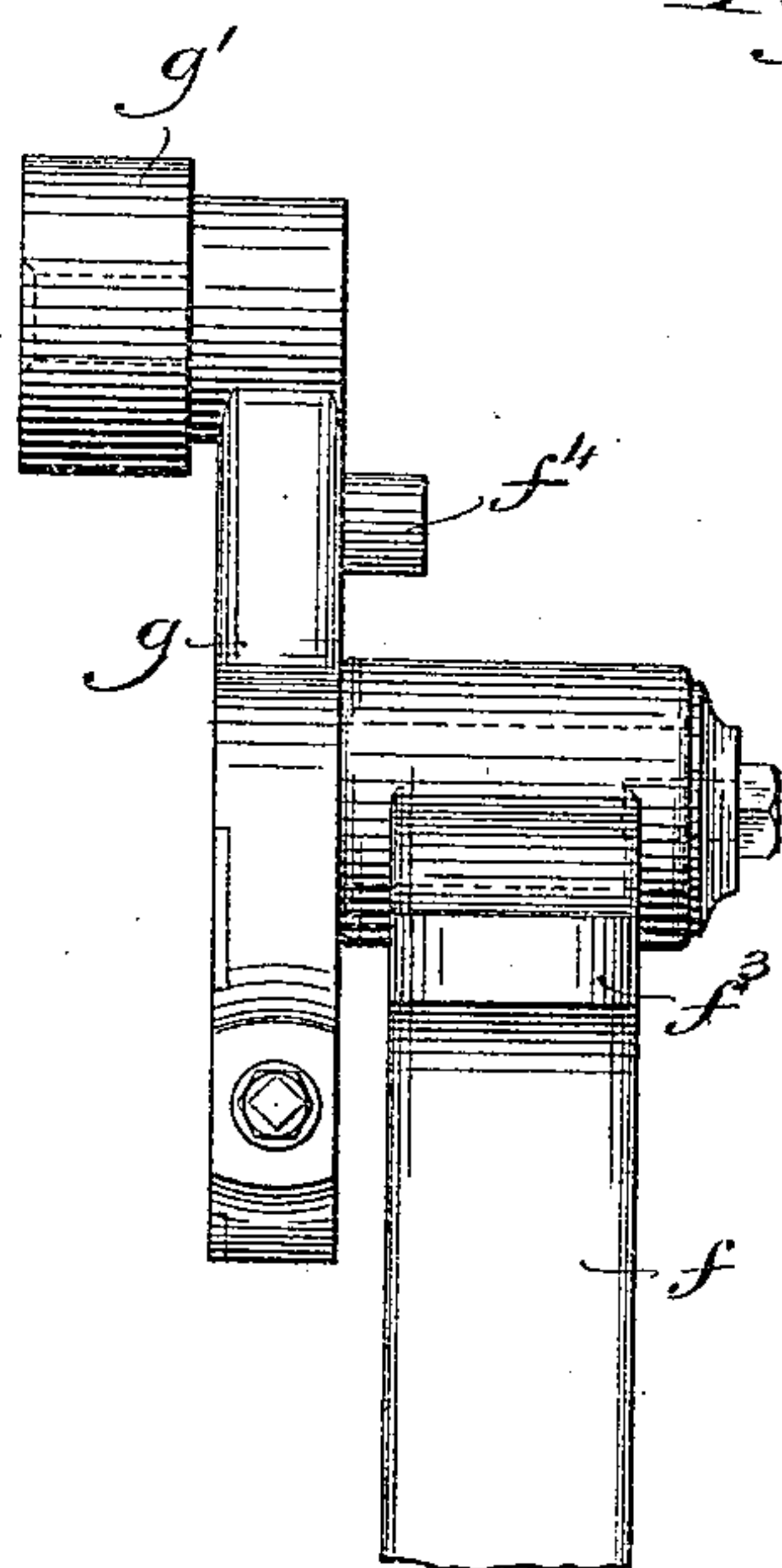
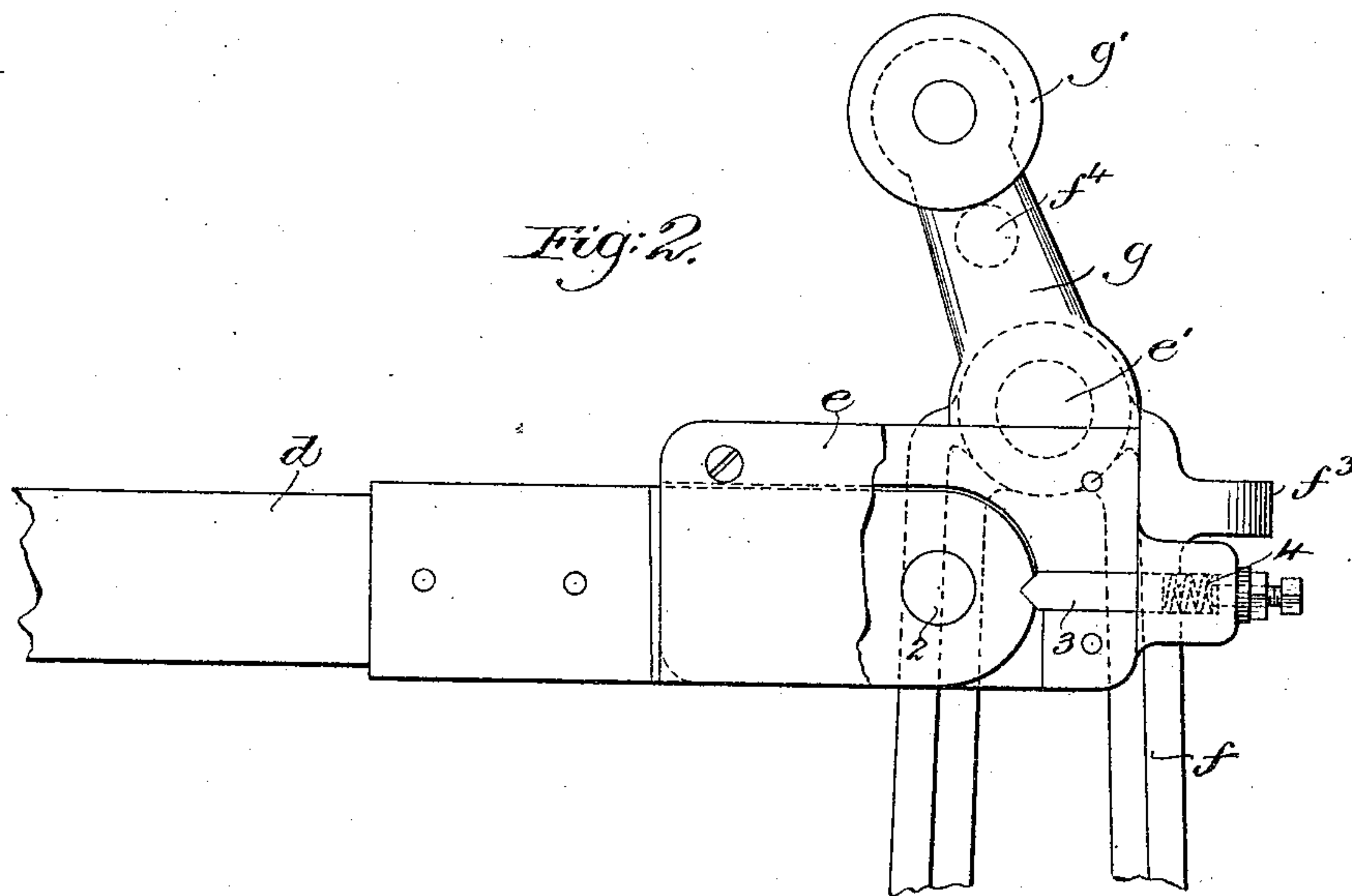
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UNITED STATES PATENT OFFICE.

WILLIAM O. TAYLOR, OF MELROSE, ASSIGNOR TO EVERETT G. PLACE,
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ELEVATOR-GUARD.

SPECIFICATION forming part of Letters Patent No. 438,294, dated October 14, 1890.

Application filed October 29, 1889. Serial No. 328,541. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. TAYLOR, of Melrose, county of Middlesex, State of Massachusetts, have invented an Improvement in Elevator-Guards, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

10 This invention has for its object to construct an elevator-guard adapted to be operated by the moving car, the said guard opening and closing the entrance or passage to the elevator-well.

15 In accordance with this invention the guard comprises a bar of any suitable length pivoted to a stand, and at a point near the pivot a short arm extends bearing on it a friction-roller. An operating device is arranged on the car, having oppositely-inclined portions, and the friction-roller lies in the path of movement of this operating device, so that by contact with the said inclined portions as the car ascends and descends the guard will be raised and lowered. As it sometimes happens that the guard is rigidly held by some object projecting beyond the edge of the car, to prevent breaking the bar at such time I have connected it (the bar) loosely to a frame 20 carrying the friction-roller, and have provided a friction device to hold it firmly to move with the frame under ordinary conditions, but to permit the frame to be moved independently by the operating device when positively held by objects projecting from the car. The stand to which the guard is pivoted is secured to the floor and is made adjustable toward and from the elevator-well.

40 Figure 1 shows in front elevation a car moving in a well, together with one floor upon which is arranged the guard embodying this invention; Fig. 2, an enlarged front elevation of a portion of the guard, showing the friction device; Fig. 3, a side view of a portion of the guard shown in Fig. 2, and Fig. 4 an enlarged cross-section of the stand.

The side walls *a* of the elevator-well and the car *b* moving therein may be of any well-known or suitable construction.

50 Secured to the car is an operating device or

frame bent or formed to present short beveled portions *c c'* or inclined planes the direction of inclination of which are opposite to each other.

The guard comprises a bar *d*, connected to 55 a frame *e* by a pin 2. The bar *d* is held so as to move normally by a friction device, herein shown as consisting of a pin 3, having a conical pointed end which enters a corresponding recess in the bar, the said pin 3 being 60 pressed firmly into engagement with the bar by a spring 4.

It is of course obvious that any other form of friction device may be substituted for the one herein shown and like results accomplished. 65

The frame *e* is pivoted at *e'* to a stand *f*, which is fastened to the floor. This stand preferably comprises a column and a foot or base, as *f'*, the column being adjusted toward 70 and from the well on said foot or base by an adjusting-screw *f''*. The short arm *g* extends from the frame *e*, bearing at its upper end a stud upon which is placed a friction-roller *g'*. The stand is so placed that the friction-roller 75 *g'* occupies a position in the path of movement of the operating device *c c'* on the car.

When the car rises, the inclined portion *c* of the operating device strikes the roller *g'*, and as the roller follows the inclination of 80 the said portion *c* it is turned aside, thereby turning the frame *e* in its pivot *e'* and raising the bar *d*, so that by the time the platform of the car is level with the floor the bar *d* is in vertical position, or substantially so. 85 As the car still moves upward, the bar is held in vertical position while the roller *g'* follows along the straight portion of the operating device, and as soon as it arrives at and while following along the inclined portion *c'* the 90 bar *d* falls by gravity, and hence closing the passage as the car moves on.

As the car descends, the reverse of the operation just described takes place—namely, the bar being raised while the roller *g'* follows 95 along the portion *c'* of the operating device and falling while the roller follows along the portion *c* of the operating device.

Sometimes objects are placed on the car so as to project beyond the edge thereof, and 100

hence when descending such objects will strike the bar d and hold it, while at the same time the operating device cc' is acting on the roller g' , attempting to lift it; but as the bar
 5 is pivoted to the frame it may be held while the frame is moved, the conical end of the pin 3 at such time passing out of the recess in the bar. On the occurrence of this kind the bar must be replaced by hand.

10 The stand f has formed on it a projection f^3 , and the arm g has on it a stud f^4 , the former serving as a limiting-stop against which the latter strikes to limit the movement of the arm e , as it is desired that it shall not be
 15 moved beyond its true vertical position to prevent it falling by gravity.

It is obvious that the friction device may be omitted and the bar rigidly connected with the frame e .

20 I claim—

1. The combination, with the elevator-car and an operating device on it, of the bar d , a frame to which it is connected, a projection f^3 on said frame, the short arm g and friction-
 25 roller g' , and a stud f^4 on said arm, adapted

to strike against the projection f^3 to limit the movement of the arm, substantially as described.

2. The combination, with an elevator-car and an operating device on it, of a bar d , piv- 30
 oted frame e , to which it is connected, a friction device for the bar d , carried by and moving with said frame e , the short arm g , and friction-roller g' , to contact with the operating device to turn the frame, substantially as 35
 described.

3. The combination, with an elevator-car and an operating device on it, of the bar d , a pivoted frame to which it is pivotally connected, and a friction device for holding the 40
 bar firmly to the frame to normally move therewith or permitting it to be moved independently thereof, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of 45
 two subscribing witnesses.

WILLIAM O. TAYLOR.

Witnesses:

BERNICE J. NOYES,
 E. J. BENNETT.