

(No Model.)

A. OAKLEY.
ELEVATOR ALARM.

No. 377,403.

Patented Feb. 7, 1888.

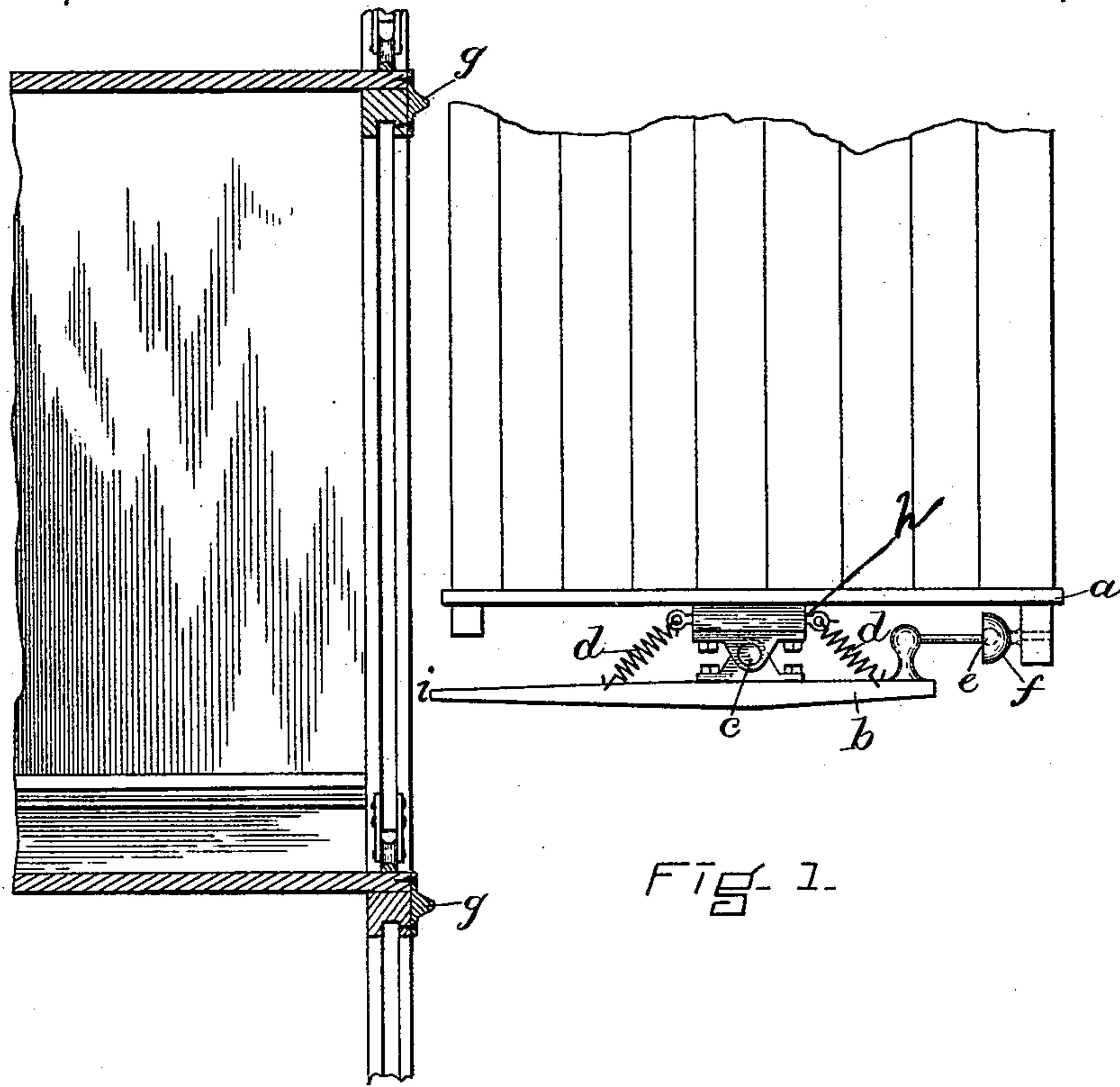
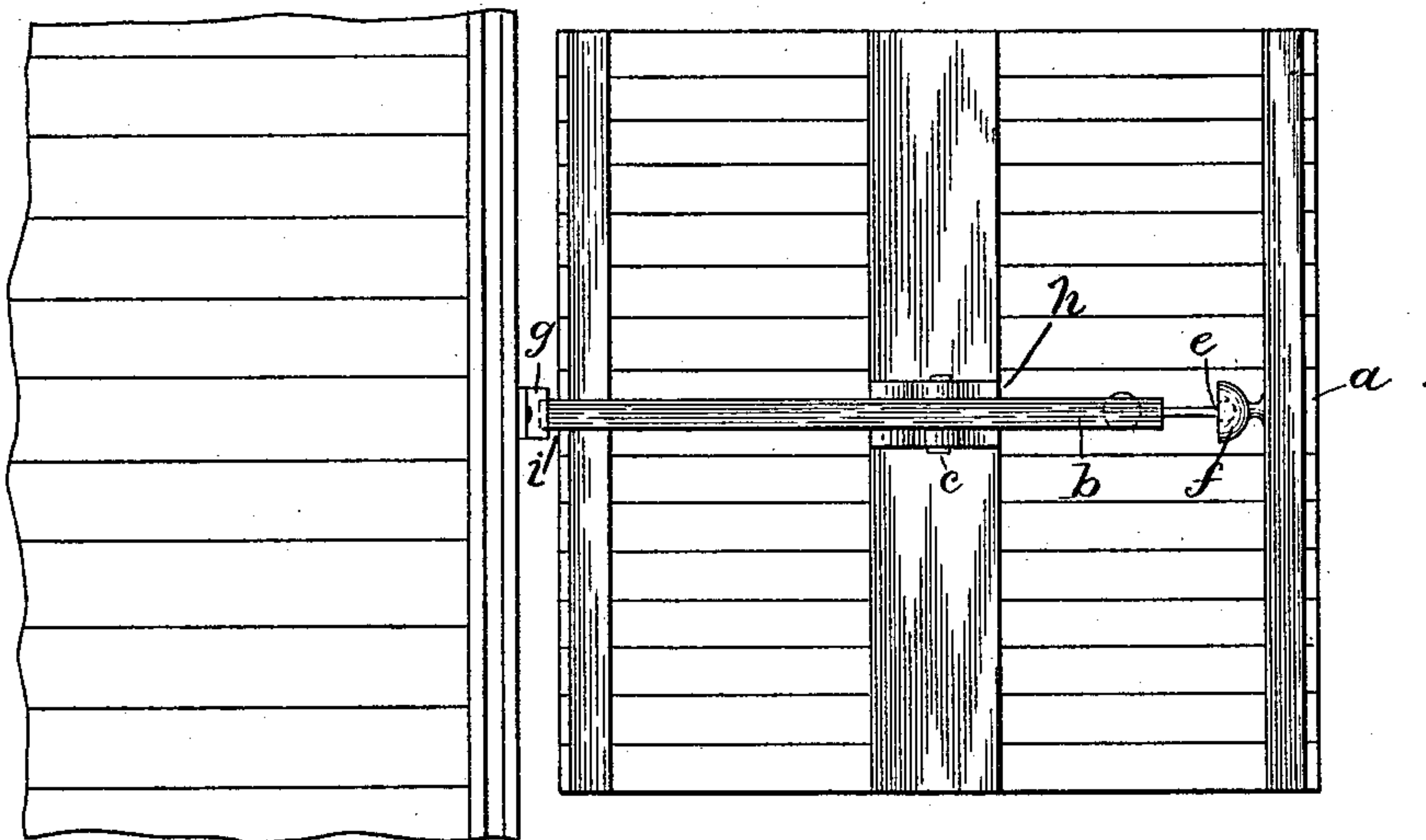


FIG. 1.



WITNESSES.

A. D. Grover—
S. W. S. Howard.

FIG. 2.

INVENTOR.

Arthur Oakley,
by his Attorney,
Chas. R. Webb

UNITED STATES PATENT OFFICE.

ARTHUR OAKLEY, OF BROCKTON, MASSACHUSETTS.

ELEVATOR-ALARM.

SPECIFICATION forming part of Letters Patent No. 377,403, dated February 7, 1888

Application filed May 20, 1887. Serial No. 238,811. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR OAKLEY, a citizen of the United States of America, residing at Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Automatic Elevator-Alarms, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in announcing the ascent and descent of passenger or freight elevators, the danger being well known which arises from the noiseless passage of elevators, especially in descending, but as well in ascending, and where the elevator well or way is accessible to those who are not aware of the danger occurring when there is no caution observed. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the entire machine. Fig. 2 is a view looking toward the under side of the elevator.

Similar letters refer to similar parts in both views.

This invention is designed to be attached to the floors of passenger and freight elevators as ordinarily constructed, and operates as follows:

A bar, *b*, carrying a hammer, is journaled to the under side of the elevator by means of two plates, one of which is bolted to a sill or cross-bar, *h*, of the elevator-bottom and the other to the top of the bar *b*. These plates are provided with bearings for a journal or axis, *c*, as clearly indicated. Springs *d* are secured to sill *h* and bar *b* in manner shown, whereby when the bar has been turned upon its axis *c* by any force acting temporarily it will be restored to its usual position when said force ceases to act. The above-described plates are so constructed and arranged that they limit the extent of the movement of the bar about its journal and prevent excessive expansion or compression of the springs. These springs may be of any efficient kind or of any number, and may be vertical in their direction, or diagonal. In the drawings they are diagonal. To the lower bar, *b*, there is attached in a suitable and efficient manner the hammer *e*, which is rigidly fastened to the same, and operates like the tongue of a bell or gong.

To the under side of the floor of the elevator *a* is fixed a gong, *f*, the concave of which is so

adjusted as to surround the end of the hammer or tongue *e*, and which must be so far within it as to come in contact with it when the proper moment of operation occurs, as will be described.

The lower bar, *b*, protrudes slightly beyond the floor of the elevator, as shown in the drawings, while leaving a space between the floors of the building in passing up and down.

To each floor of the building there is a projection, *g*, equivalent to a pin, of such a length as to engage or come in contact with the end of the lower bar, *i*, when the latter in the passage of the elevator up and down arrives opposite this projection *g*.

The mechanism which has been described is put in motion and operates as follows: The elevator being in motion, the end *i* of the lower bar comes in contact with the projections *g*, as before described. In order to pass these projections *g*, either in ascending or descending, the lower bar, *b*, must slightly turn and partly rotate on the axis or journal *c*, imparting a rocking motion to the lower bar, *b*. This rocking motion will induce a movement to the hammer or tongue *e*, which, being perpendicular in its direction, will cause it to come in contact with the inner surface or concave of the gong *f*. It is thus evident that a stroke will occur and that the gong will sound, effecting the purpose of the invention—viz., an automatic alarm.

Although a gong is preferable, a bell may be attached by means of a spring to the lower bar, *b*.

In the drawings a passenger-elevator is represented; but the invention is equally applicable to freight, merchandise, or any other kind of elevator.

By way of protecting the alarm from injury by touching at the bottom of the elevator-way, beams may be so placed on and under the elevator-floor as to act as buffers.

I am aware that no single feature of my invention is novel. I am also aware that combinations of such devices having the same general purpose as mine have been proposed and described in prior publications. My construction is simpler than any heretofore known and quite efficient.

I therefore claim and desire to secure by Letters Patent—

The combination, in a passenger, freight, or

other elevator, of a movable bar, plates secured one to the bar and the other to the sill of the elevator, and arranged to positively limit the movement of the lever about its axis,
5 said axis journaled in the plates, a hammer on one end of the lever, a gong both of whose interior walls are in the path of the hammer, projections arranged in the path of the end of the lever opposite the gong, and springs on

opposite sides of the journal or axis, secured to the elevator and to the lever outside of the plates, all substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ARTHUR OAKLEY.

Witnesses:

HIRAM A. FREEMAN,
S. W. S. HOWARD.