

A. W. HUBERS.
 LOCK FOR ELEVATOR DOORS.
 APPLICATION FILED SEPT. 1, 1909.

973,275.

Patented Oct. 18, 1910.

FIG. 1

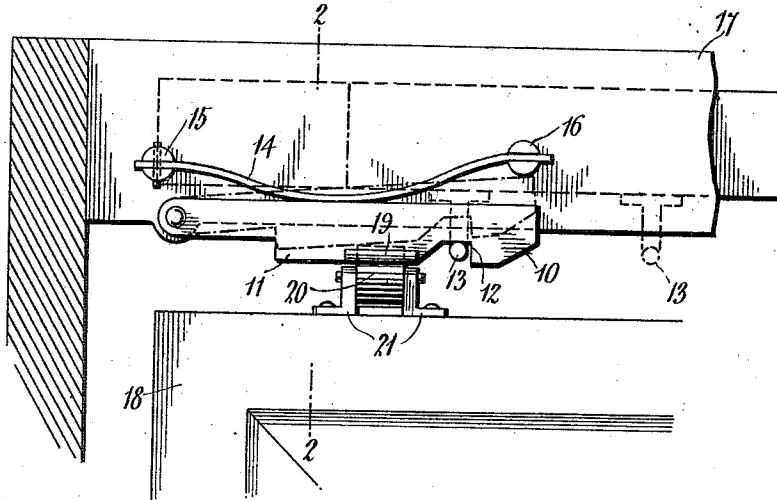
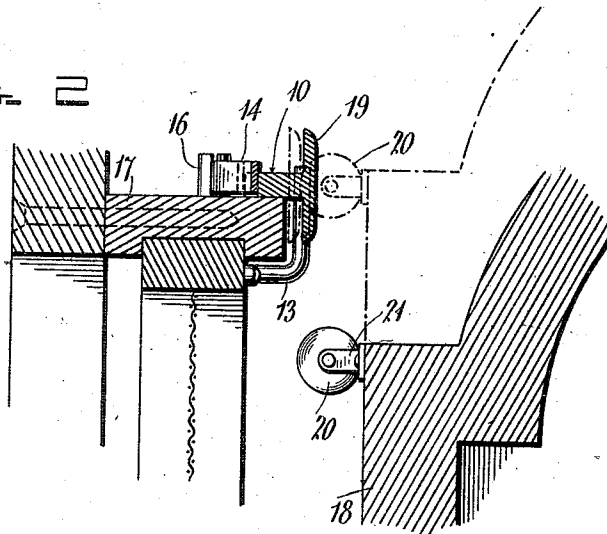


FIG. 2



Witnesses

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LOCK FOR ELEVATOR-DOORS.

973,275.

Specification of Letters Patent.

Patented Oct. 18, 1910.

Application filed September 1, 1909. Serial No. 515,631.

To all whom it may concern:

Be it known that I, ALBERT W. HUBERS, a citizen of the United States, residing at Baltimore, in the State of Maryland, have
5 invented certain new and useful Improvements in Locks for Elevator-Doors; 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
10 to which it appertains to make and use the same.

This invention relates to elevators and has special reference to a novel form of door lock for elevator shafts which is so arranged
15 that the door cannot be opened until the door of the elevator is level with the building floor whereon said door is located.

One object of the invention is to improve the general construction of devices of this
20 character.

Another object of the invention is to provide a device of this character which will operate in an entirely automatic manner and without shock or jar.

25 With the above and other objects in view the invention consists in general of certain mechanism arranged to releasably lock a door held adjacent said door in an elevator shaft and other mechanism carried by the
30 elevator car arranged to release the first mentioned mechanism and permit the door to open.

The invention further consists in certain novel details of construction and combinations of parts hereinafter fully described,
35 illustrated in the accompanying drawings, and specifically set forth in the claim.

In the accompanying drawings, like characters of reference indicate like parts in the
40 several views, and Figure 1 is a top plan view of a door frame and a portion of an elevator car equipped with this invention. Fig. 2 is a section on the line 2—2 of Fig. 1.

The invention embodies a latch for holding the door of the elevator shaft closed until such time as the elevator car has reached the level of the landing, the latch being then operated to release the door and permit of its being opened. This latch is clearly
45 shown in the drawings as comprising a pivoted latch member 10 which is mounted upon the upper track in which the door slides and which is formed along a portion of one edge with a lip 11 and adjacent one
50 end with a notch 12 in which a pin 13 upon the door normally engages, it being under-

stood that the door is held against movement to open position by reason of such engagement of the pin 13 with the notch 12. It is to be further understood that the notch
60 12 is formed in the free end of the latch member 10 so that this notch may be moved into or out of the path of the pin. The latch member 10 is normally held in operative position by means of a leaf spring 14
65 fixed at one of its ends to a post 15 supported on the door frame and guided at its opposite end through a slot formed in a similar post 16, both posts being arranged upon the upper face of the upper track in which
70 the door slides. This upper track is here indicated as a portion of the frame by the numeral 17. At 18 is a portion of an elevator car. The lip 11 is formed at its edge with a shoe 19 which projects above and
75 below the latch member and is curved at its upper and lower ends, this shoe being designed to be engaged by a roller 20 supported in brackets 21 upon the elevator car and so positioned that the engagement takes
80 place when the car floor is in a plane with the landing floor. The engagement of this roller with the shoe serves to force the latch member to the dotted line position shown in Fig. 1, and in doing so, the pin 13 becomes
85 disengaged from the notch 12 in the latch member and the door may be slid to open position, the hereinbefore mentioned instrumentalities operating as described. It will be obvious that as the elevator moves away
90 from the landing the spring will serve to return the latch to the full line position so that as the door is shut the pin is engaged by the notch. There has thus been provided a simple and efficient device of the kind
95 described and for the purpose specified.

It is obvious that minor changes may be made in the form and construction of this invention without departing from the material principles thereof. It is not therefore
100 desired to confine the invention to the exact form herein shown and described, but it is wished to include all such as properly come within the scope of the appended claim.
105

Having thus described the invention, what is claimed as new, is:—

In a device of the kind described, a door frame, a rigid latch having one end carried on a vertical pivot connected to the door
110 frame whereby the latch moves in a horizontal plane, a door, means on said door en-

gageable with said latch, a shoe formed on
said latch member and provided with in-
curved ends, an elevator car, means on said
car to engage the shoe as the car comes op-
5 posite the door, a pair of posts carried on
said frame behind the ends of said latch,
said posts being provided with slots extend-
ing therethrough, and a spring fixed to one
of said posts at one end and having its other

end slidably received in the slot of the other 10
post, said spring being bowed in the center
to rest against said latch.

In testimony whereof, I affix my signa-
ture, in presence of two witnesses.

ALBERT W. HUBERS.

Witnesses:

ALBERT W. SCHENCK,
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