

A. E. KARG.
DOOR OPENING ATTACHMENT FOR ELEVATORS.
APPLICATION FILED MAR. 8, 1909.

925,918.

Patented June 22, 1909.

Fig. 1.

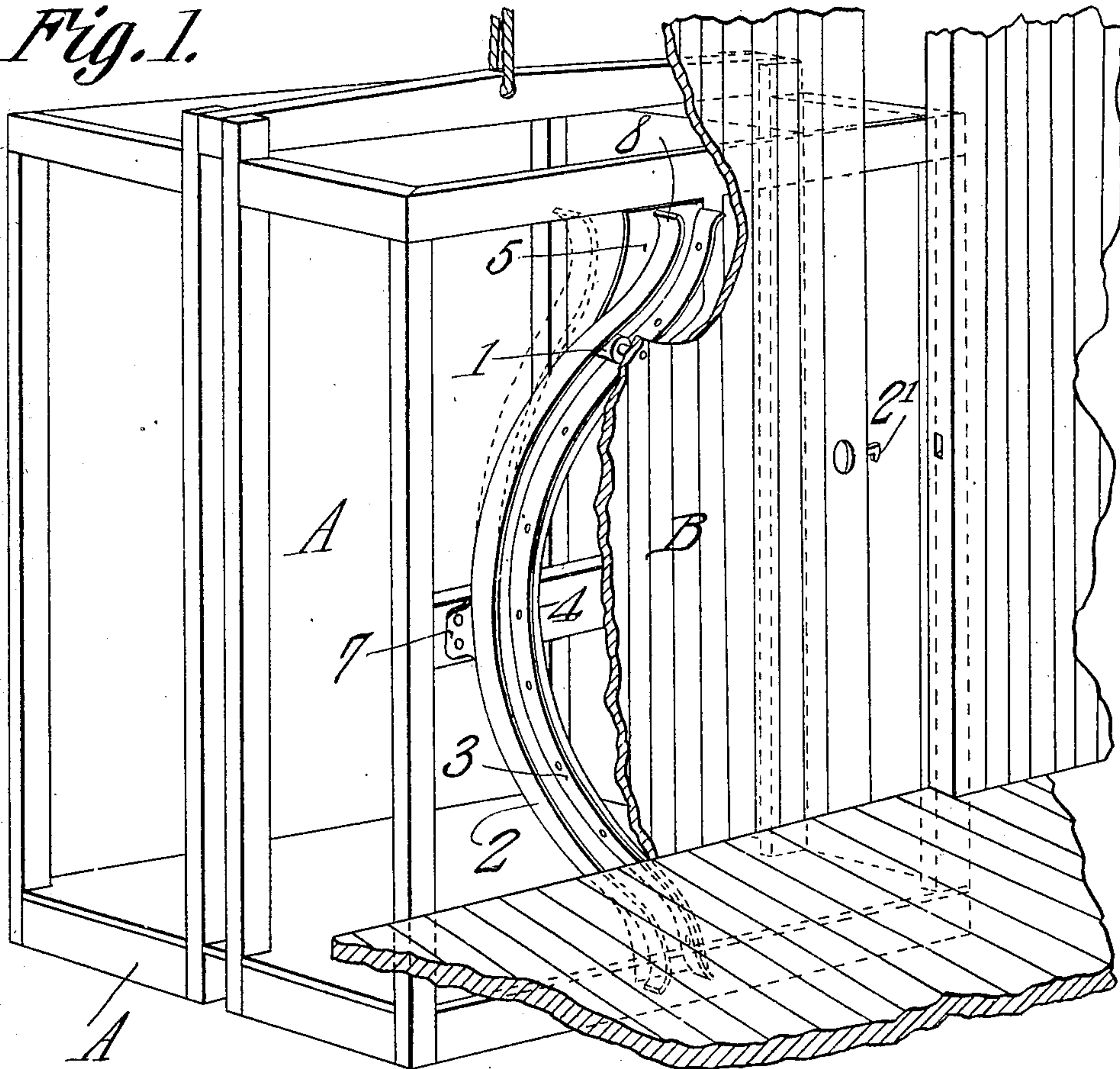


Fig. 3.

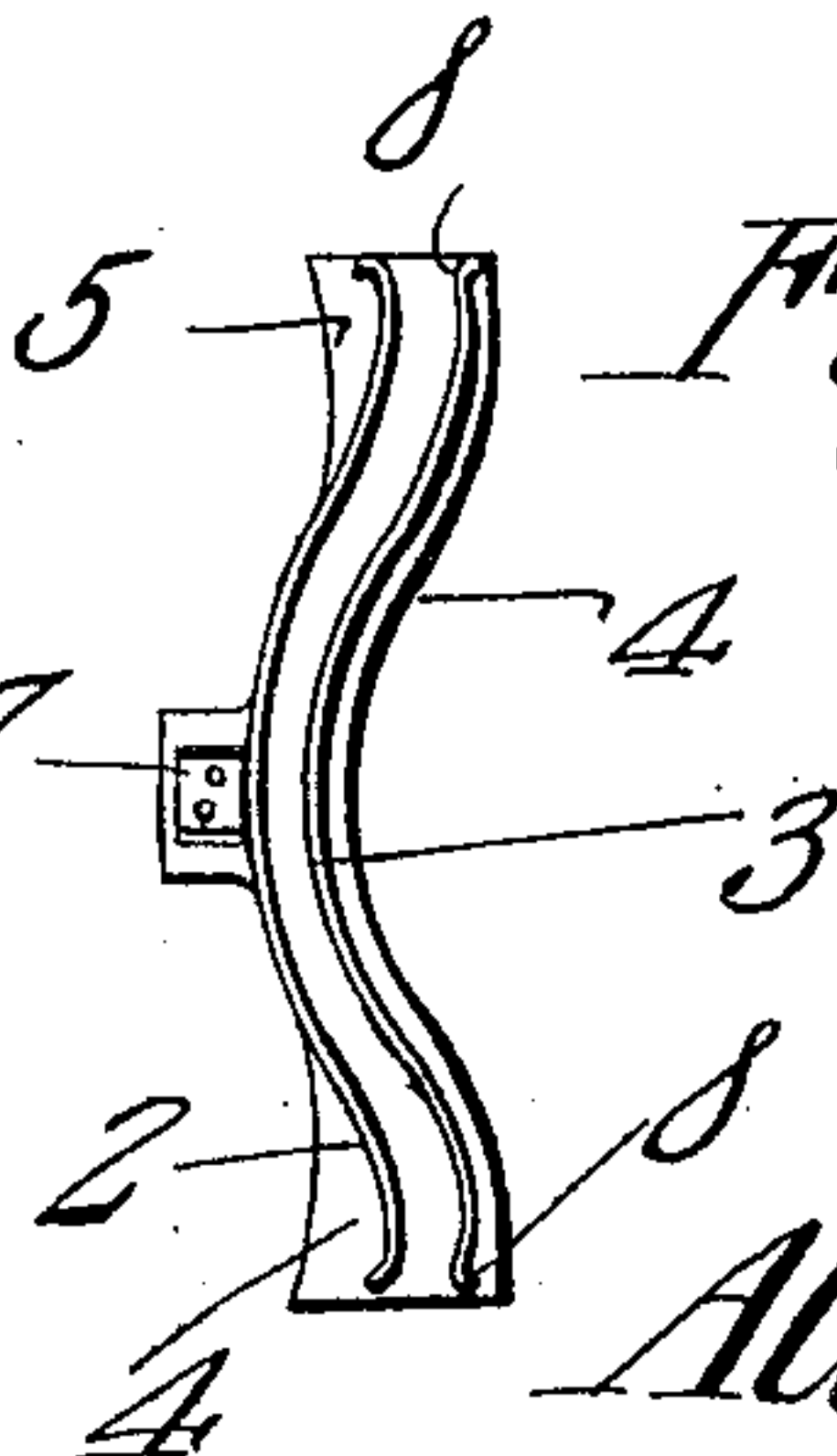
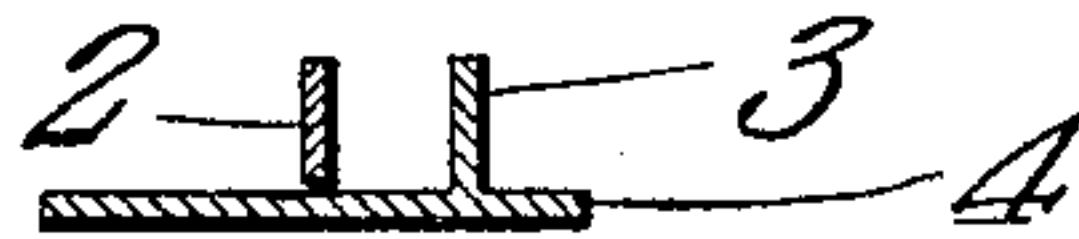


Fig. 2.

Witnesses

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By

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UNITED STATES PATENT OFFICE.

ALBERT E. KARG, OF FINDLAY, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, OF ONE-FOURTH TO JOHN F. BURKET AND ONE-FOURTH TO REGINALD BURKET, OF FINDLAY, OHIO.

DOOR-OPENING ATTACHMENT FOR ELEVATORS.

No. 925,918.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed March 8, 1909. Serial No. 482,060.

To all whom it may concern:

Be it known that I, ALBERT E. KARG, a citizen of the United States, residing at Findlay, in the county of Hancock and State of Ohio, have invented a new and useful Door-Opening Attachment for Elevators, of which the following is a specification.

This invention relates to door operating attachments for elevators and its object is to provide simple means whereby the doors opening into an elevator shaft will be successively opened as the elevator car reaches the door openings and will be successively closed as the car passes said openings.

A further object is to provide resilient means for actuating the door whereby should any object or objects become caught between the door and the door casing while the said door is being closed no injury will result either to the mechanism or to said object as a result of the action of the door.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a perspective view of an elevator car having opening mechanism applied thereto, said mechanism being constructed in accordance with the present invention, a portion of an elevator door being shown engaged thereby and partly open. Fig. 2 is a front elevation of the door-shifting attachment. Fig. 3 is a transverse section through a guide strip.

Referring to the figures by characters of reference A designates an elevator car of any suitable construction, and B designates the usual sliding door. A roller 1 is mounted upon one face of the door adjacent that edge thereof farthest removed from the latch 2' and at a point midway between the upper and lower ends of the door. This roller is disposed in the path of two deflecting strips 2 and 3, each of which is bow shaped, and both of the strips being normally parallel throughout their length. These strips extend from the top to the bottom of the car A upon that wall thereof adjacent the door B, and the strip 3 has a base flange 4 which is secured in any preferred manner to the car A, this flange extending throughout the length of said strip 3. The flange extends beyond

both sides of the strip 3 and that portion of the flange extending beyond the convex face of the strip constitutes a wear-plate 5 upon which the deflecting strip 2 is movably mounted. This last mentioned deflecting strip is secured to the car by means of a bracket 7 extending from the center of the strip. It will be apparent that those portions of the strip extending beyond the bracket 7 are free to flex as indicated by dotted lines in Fig. 1.

The terminals of the two strips 2 and 3 diverge as indicated at 8 so that when the car moves into position back of the door B one or the other of the diverging ends of the deflecting strips will push against the roller 1 and shift it laterally so as to slide the door into open position. This is due to the fact that as the car approaches the door the rigid deflecting strip 3 moves into contact with the roller until the door is completely opened, this occurring when the roller reaches the middle portion of the strip 3. As the car continues to move past the door however the roller 1 is brought into contact with the flexible strip 2 which operates to deflect said roller so as to move the door into closed position. Obviously should any object become caught between the door and the door-jamb while the door is being closed the flexible deflecting strip 2 will give so that said object will not be injured and the movement of the elevator car will not be interrupted.

Suitable mechanism may be utilized for automatically unlocking the door immediately prior to the opening thereof, but inasmuch as this mechanism constitutes no part of the present invention it has not been deemed necessary to disclose it.

The deflecting strip 2 may be formed of any suitable material such as spring metal, it being necessary of course to have it sufficiently stiff to shift the door into closed position when the same is subjected to no unusual resistance.

It is of course to be understood that various changes may be made in the construction and arrangement of the parts without departing from the spirit or sacrificing the advantages of the invention.

What is claimed is:—

1. A door-actuating attachment for elevators comprising a non-flexible deflecting strip, a flexible deflecting strip adjacent thereto, said strips having means for attach-

ing them to an elevator car, and a projection for attachment to a door and movable between said strips.

2. The combination with a slidable door
5 and a projection thereon, of an elevator car, a non-flexible deflecting strip upon the car and movable against the projection to shift the door in one direction, and a flexible deflecting strip upon the car and movable

against the projection to shift the door in 10 the opposite direction.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ALBERT E. KARG.

Witnesses:

MARION G. FOSTER,
ALEXANDER CARPENTER.