

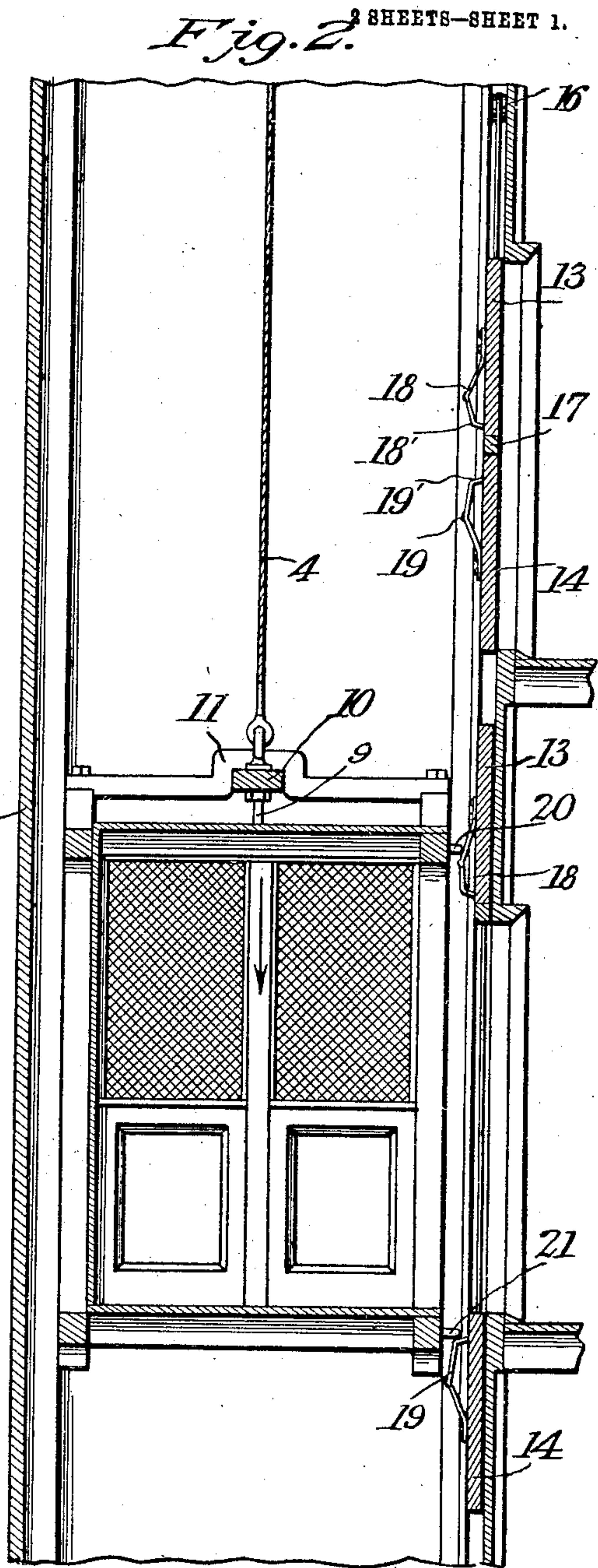
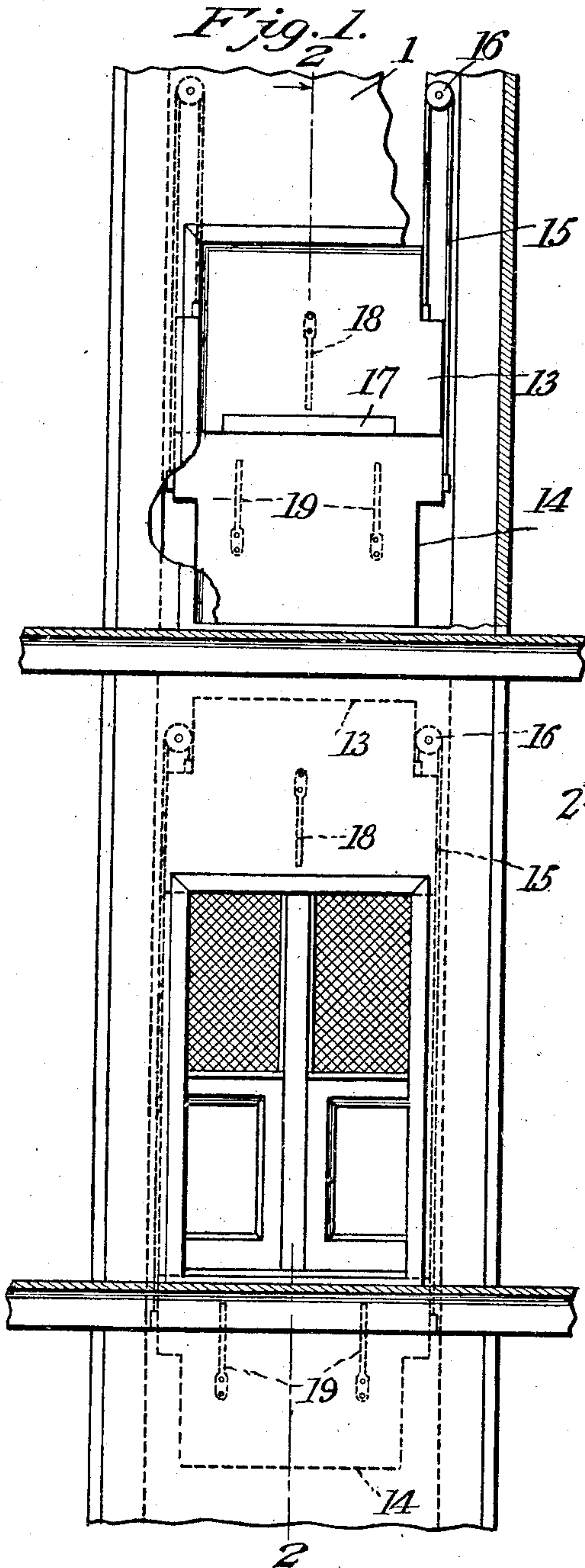
L. LABECKI.
ELEVATOR.

APPLICATION FILED JAN. 28, 1910.

Patented Aug. 2, 1910.

966,220.

2 SHEETS—SHEET 1.



Witnesses

Edwin L. McKee
Wm. Baggett

Inventor
Leopold Labeck

By Victor J. Evans
Attorney

L. LABECKI.

ELEVATOR.

APPLICATION FILED JAN. 28, 1910.

966,220.

Patented Aug. 2, 1910.

2 SHEETS—SHEET 2.

Fig. 3.

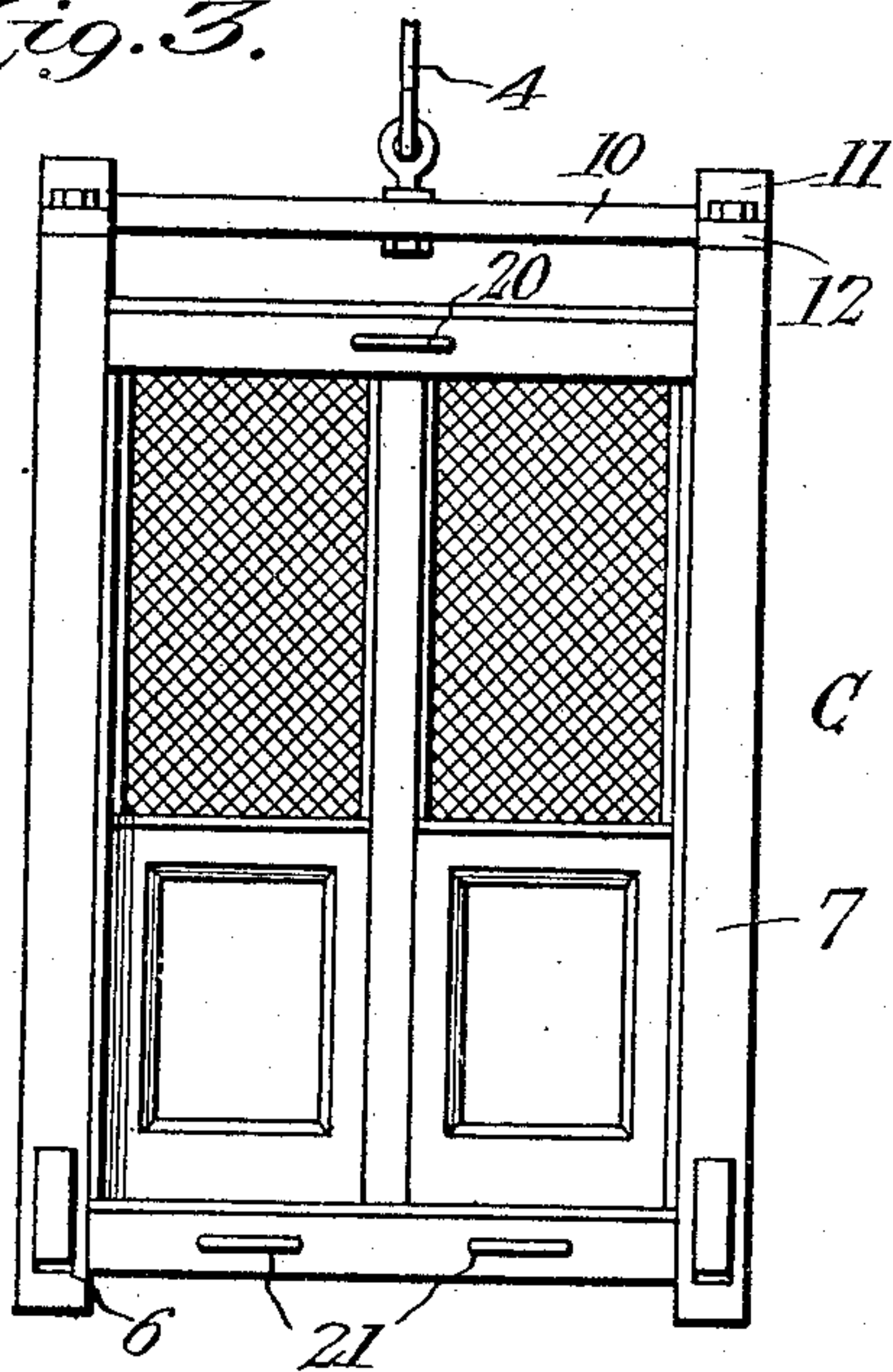


Fig. 4.

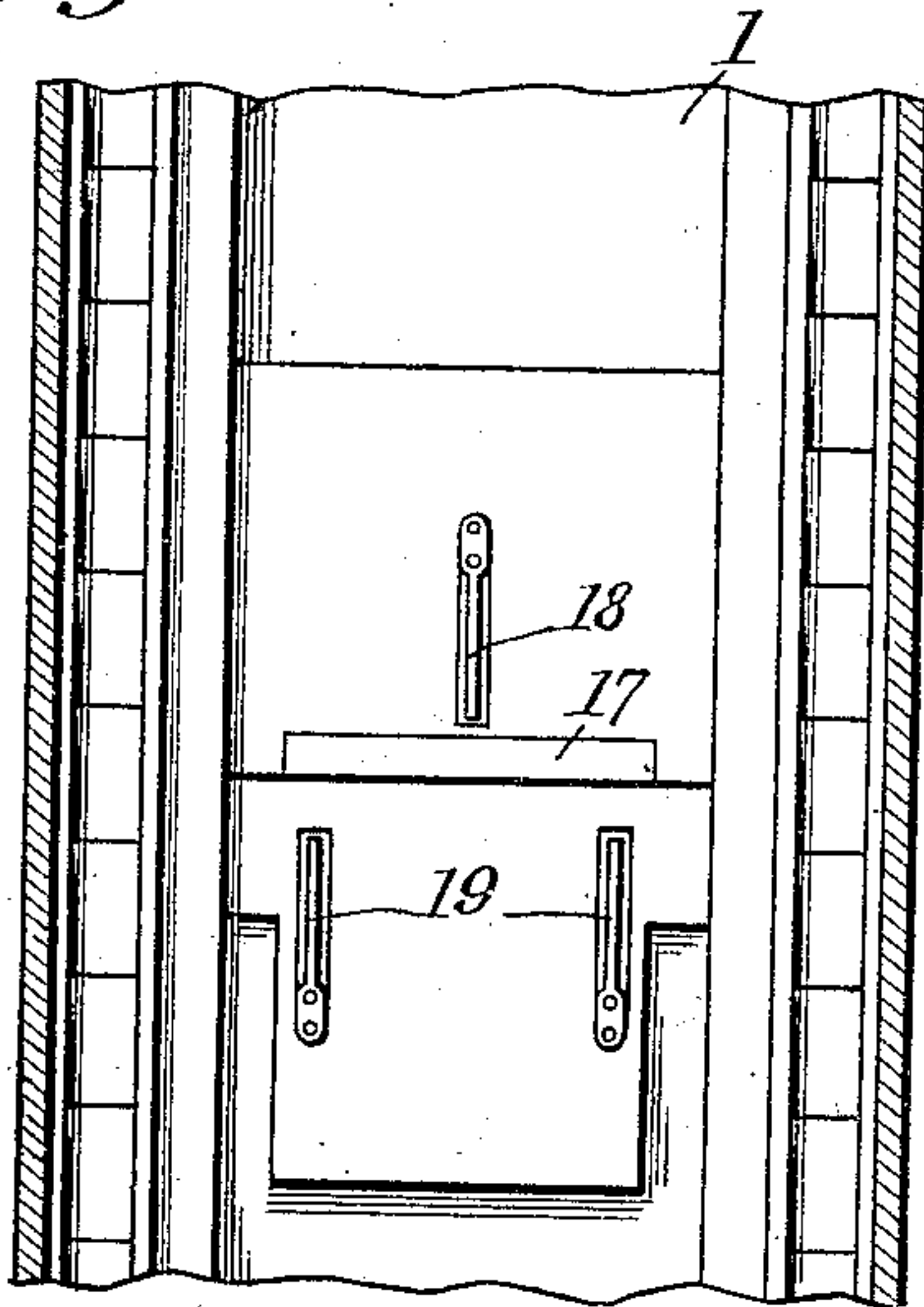
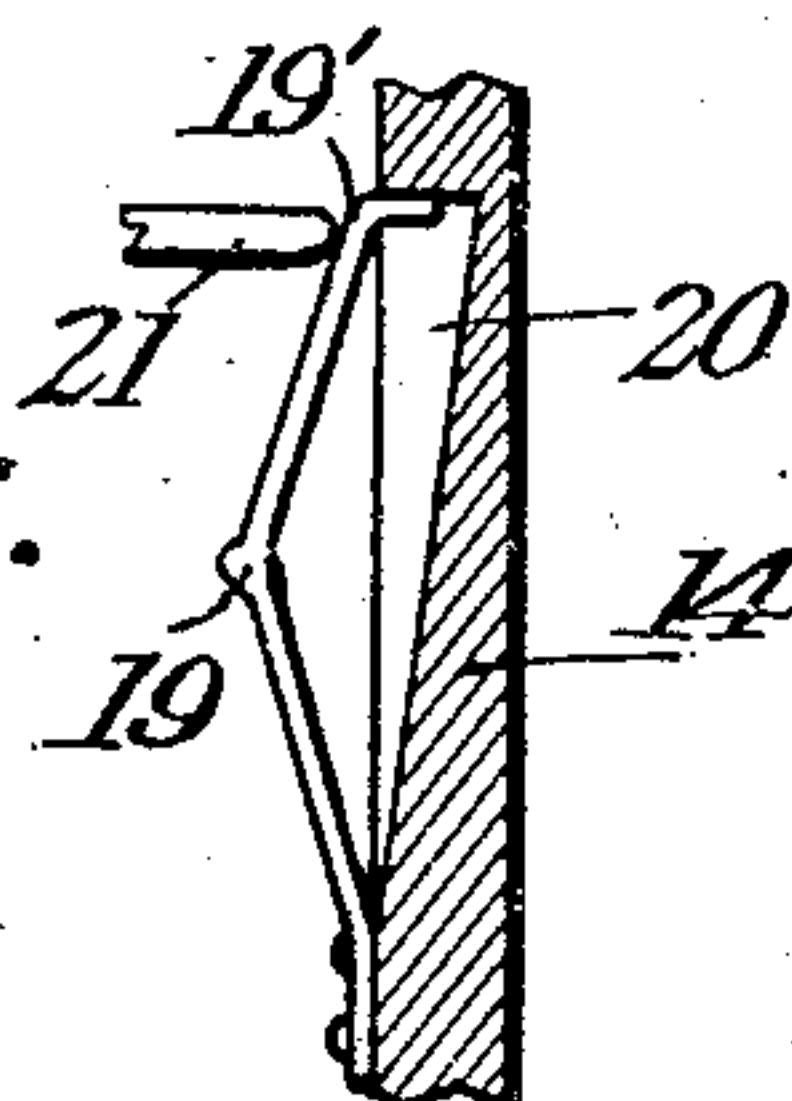


Fig. 5.



Witnesses

Edwin G. McKee
Wm. Baggett

Inventor

Leopold Labeck
By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

LEOPOLD LABECKI, OF PERTH AMBOY, NEW JERSEY.

ELEVATOR.

966,220.

Specification of Letters Patent.

Patented Aug. 2, 1910.

Application filed January 28, 1910. Serial No. 540,609.

To all whom it may concern:

Be it known that I, LEOPOLD LABECKI, a citizen of the United States of America, residing at Perth Amboy, in the county of Middlesex and State of New Jersey, have invented new and useful Improvements in Elevators, of which the following is a specification.

This invention relates to elevators, and one of its objects is to provide an improved safety door or closure adapted to be operated automatically by the car in its upward and downward movement.

Still further objects of the invention are to simplify and improve the general construction and operation of a device of the character outlined above.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claim.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention, may be resorted to when desired.

In the drawings,—Figure 1 is a front elevation, partly in section, showing a part of an elevator shaft and a car movable therein. Fig. 2 is a vertical sectional view taken on the plane indicated by the line 2—2 in Fig. 1. Fig. 3 is a view in front elevation of the car detached. Fig. 4 is a sectional view taken through a portion of the elevator shaft, looking in a forward direction toward the safety door or closure. Fig. 5 is a sectional detail view to illustrate the construction and operation of the door-operating mechanism.

Corresponding parts in the several figures are denoted by like characters of reference.

The car C is suspended for vertical movement in the shaft by the hoisting element 4, one end of which is connected with a cross bar 10 engaging loops or keepers 11 upon the head blocks 12 which extend across the car adjacent to the sides of the latter, the said head blocks being firmly bolted or otherwise secured upon the upper ends of the corner posts 7 of the car.

The door openings at the landings of the elevator shaft are protected by doors or closures, each of which is composed of two slidably supported members 13 and 14, the upper members 13 being connected with the lower members by flexible elements 15 guided over pulleys 16 so that when the upper members are moved upwardly, the lower members will drop by gravity. The upper door members 13 are provided with weights 17 so that they will overbalance the lower door members 14, thus keeping the doors normally closed, as will be seen in Fig. 1 of the drawings.

The door members 13 and 14 are provided with resilient engaging members consisting of hooks 18 and 19, said hooks or engaging members being disposed out of registry with each other, as clearly seen in Fig. 1, said engaging members being secured upon the inner sides of the respective door members which are provided with recesses 20, as shown in Fig. 5, for the accommodation of said engaging members. The latter consists of resilient hooks having beveled engaging shoulders 18' and 19', best seen in Fig. 2, said engaging shoulders being presented in the direction of the meeting edges of the door members, and the recesses 20 being shaped to accommodate the normally projecting ends of the engaging members having the shoulders. The front side of the car is provided adjacent to its upper and lower ends with contact members consisting of loops or plates 20 and 21, best seen in Figs. 2 and 3, the upper contact member 20 being disposed in the path of the engaging members 18 of the upper door members 13, while the contact members 21 at the lower end of the car are disposed in the path of the engaging members 19 of the lower door members 14.

When, in operation, the car ascends, the contact member 20 will, when the car approaches a landing, strike the beveled shoulder 18' of the resilient engaging member 18 of the upper door member 13, thus pushing said door member in an upward direction, thereby permitting the lower door member to drop by gravity until the floor of the car reaches the landing, thus uncovering the door opening. When the car ascends beyond a predetermined point, the pressure of the contact member 20 against the bevel shoulder of the engaging member will force the latter to recede within the recess 20,

thus permitting the car to pass, the resilient engaging members 19 of the lower door member 14 being likewise forced back into their respective recesses by contact with the members 21, thus permitting the upper door members to descend by gravity and to elevate the lower door members until they meet, thus closing the door opening as the car passes. The operation is reversed when the car descends, the doors being in this instance moved to an open position by contact of the members 21 with the members 19.

As will be seen from the foregoing description, an elevator is provided which is simple in construction and perfectly safe in operation, approach to the elevator shaft being barred by doors which close automatically by gravity, as herein described.

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

In an elevator, a door comprising vertically movable upper and lower members, a suitably guided connecting element, whereby upward movement of the upper

door member will allow the lower door member to move in a downward direction, said upper and lower door members being provided upon their inner faces with recesses, and resilient engaging members secured adjacent to said recesses and having beveled engaging shoulders facing in the direction of the meeting edges of the door members and capable of movement within the recesses, said engaging members upon the upper and lower door members being disposed out of alinement; in combination with a car provided adjacent to its upper and lower ends with contact members disposed for engagement, respectively, with the engaging members of the upper and lower door members.

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

LEOPOLD LABECKI.

Witnesses:

WOICEH KAZMIDSKY,
JULIUS KORANY.