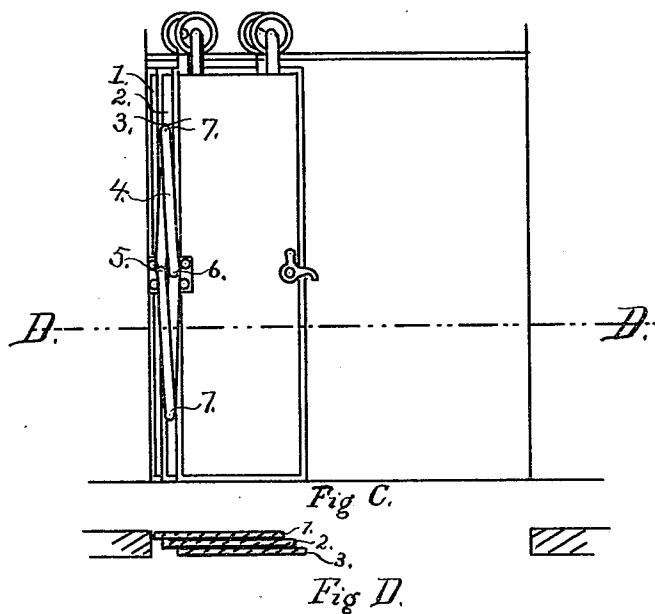
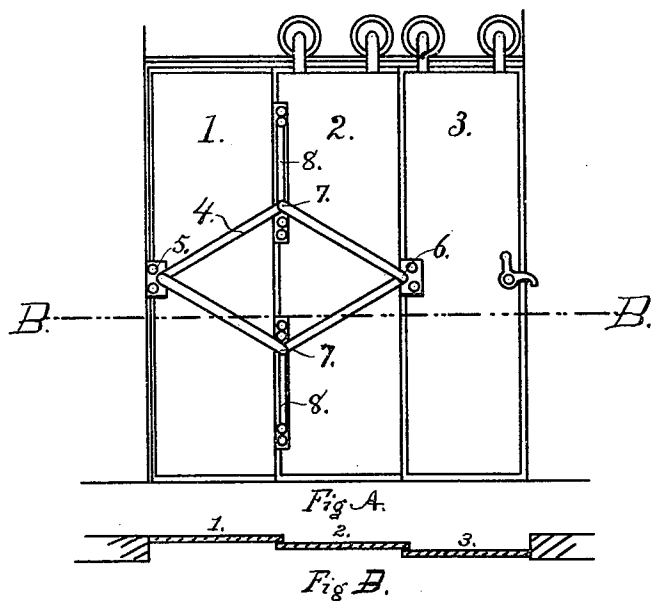


(No Model.)

R. T. CRANE & T. W. HEERMANS.
ELEVATOR DOOR.

No. 546,998.

Patented Oct. 1, 1895.



Witnesses
J. N. Stone
W. W. Garrard

Richard T. Crane
Thaddeus W. Heermans Inventors:
By their attorney *Paul Symmestvedt*

UNITED STATES PATENT OFFICE.

RICHARD T. CRANE AND THADDEUS W. HEERMANS, OF CHICAGO, ILLINOIS;
SAID HEERMANS ASSIGNOR TO SAID CRANE.

ELEVATOR-DOOR.

SPECIFICATION forming part of Letters Patent No. 546,998, dated October 1, 1895.

Application filed February 9, 1895. Serial No. 537,840. (No model.)

To all whom it may concern:

Be it known that we, RICHARD T. CRANE and THADDEUS W. HEERMANS, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Elevator-Doors, of which the following is a specification.

Our invention relates to that class of elevator-doors technically known as "horizontally slidable," and, generally stated, consists of such an arrangement of the parts as will secure, when the door is open, a wider passageway than can possibly be obtained with the devices of a similar nature now in common use. It is obvious that the wider the door the greater the facility with which the elevator can be emptied and filled.

More specifically, our invention consists in the construction of an elevator-door of two or more slidable sections, which, when the door is open, will cover no more of the doorway than the amount normally covered by one of them; to accomplish which these sections are arranged so that one will move partially past the other in the same direction, whenever either is opened or shut, by the use of suitable mechanism hereinafter to be more particularly described.

Our invention is especially applicable to elevators in which for some reason the entry side of the cage and well is necessarily restricted in width—as, for example, in an arrangement where a number of elevators are set in an arc of a circle with the doorways toward the center. In our experience we have found that where such an arrangement is used a doorway which when open uncovers but half the width of the cage is not of sufficient size to permit the rapid loading and unloading which is so desirable. Heretofore an endeavor has been made to overcome this objection by the use of two hinged doors swinging inward or outward, as the case may be. The defects of such a construction are too self-evident to need further mention here.

To better understand our invention, reference may be had to the accompanying drawings, in which like figures indicate like parts in the several views.

Figure A is an elevation of our improved door with the parts in closed position. Fig. B is a plan-section taken on the line B B of Fig. A. Fig. C is an elevation with the parts in open position. Fig. D is a plan-section taken on the line D D of Fig. C.

Referring now to Fig. A, 1 is a part of the front wall or frame. 2 is the inner part or half of the door. 3 is the outer half of the door, and 4 is a well-known form of lazy-tongs.

Of the lazy-tongs 4, one corner or pin is pivoted on the wall at 5, the opposite corner or pin on the half-door 3 at 6, and the other two corners or pins 7 7 are arranged to slide vertically in the slotted guides 8 8, which are fastened to the left edge of the half-door 2. Now when it is desired to open the door the part 3 is moved to the left. This causes an outward and backward movement of the points or pivots 7 7, and by virtue of the slotted guides 8 8, in which said pivots travel, moves the half-door 2 coincidently with and in the same direction as the half-door 3, but at a speed and for a distance only half as great. Thus it will be seen when the parts are in open position (shown in Fig. C) the half-door 2 will have traveled a distance approximately equal to its width, the half-door 3 will have traveled a distance equal to twice its width, and the opening or passage available for loading or unloading the car will be approximately equal to two-thirds of the entire width of the front side.

In closing the door the movement of all the parts is simply reversed, as will be readily understood without further explanation.

It is to be noted that we have endeavored throughout this specification to avoid all reference to specific details of construction further than seemed absolutely necessary to make the use and preferred construction of our invention perfectly clear, and we do not desire to be understood as limiting our claim to the precise mechanical arrangement shown.

It is obvious that some of the particulars are non-essential, and we therefore desire to include as within the scope of our invention all equivalent means known in the art.

What we claim as new, and desire to secure by Letters Patent, is—

An elevator door composed of two or more
slidable sections which, when the door is open,
will cover no more of the doorway than the
amount normally covered by one of them,
5 said sections being so connected by suitable
mechanism as to insure the simultaneous
movement of both, in the same direction, and

one partially past the other whenever either
is opened or shut, substantially as described.

RICHARD T. CRANE.

THADDEUS W. HEERMANS.

Witnesses:

W. W. GARRARD,

F. B. SANBORN.