No. 734,484. PATENTED JULY 21, 1903.

M. P. WHITE & H. STEUER.

DEVICE FOR OPERATING ELEVATOR DOORS.

APPLICATION FILED FEB. 17, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

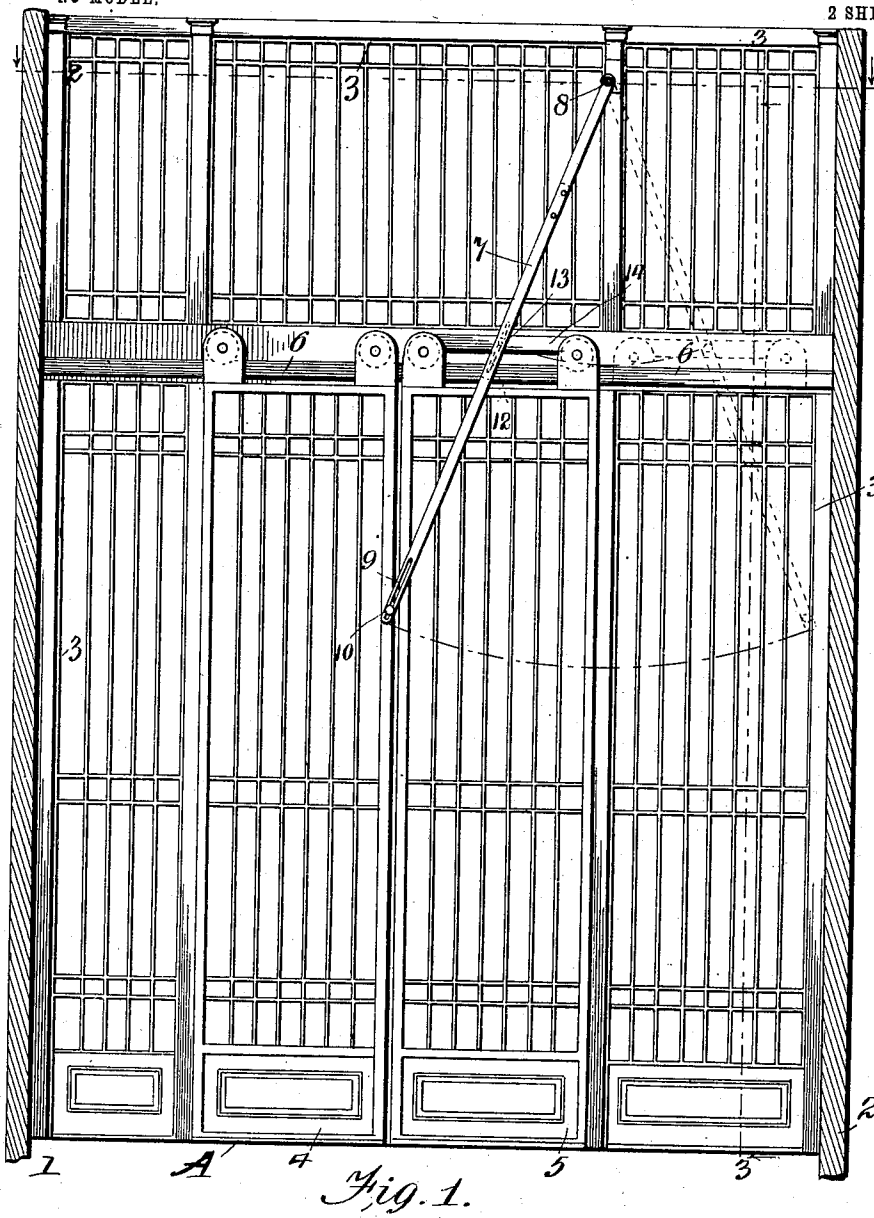

Fig. 1.

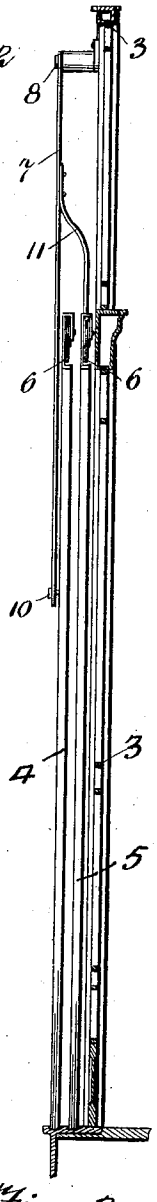

Fig. 3.

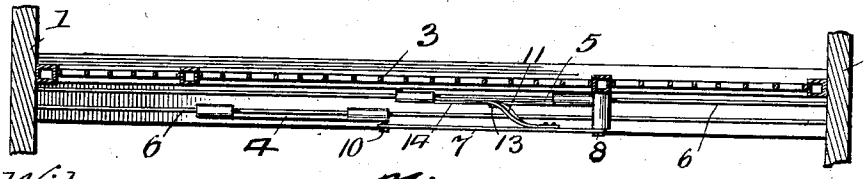

Fig. 2.

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NO MODEL. 2 SHEETS—SHEET 2.

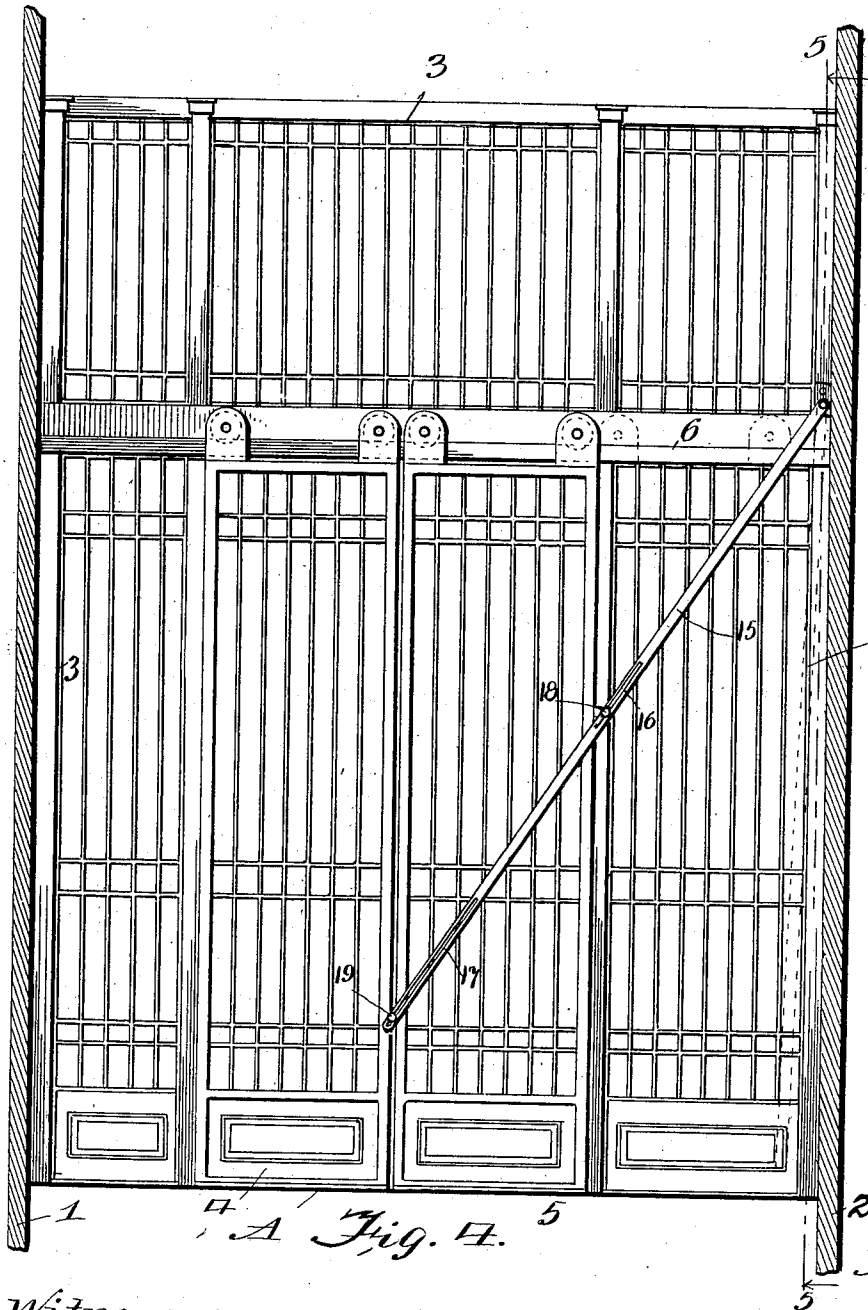

Fig. 4.

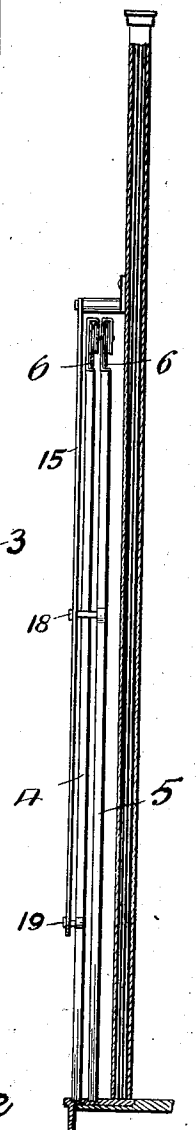

Fig. 5

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UNITED STATES PATENT OFFICE.

MELVILLE P. WHITE AND HERMAN STEUER, OF CHICAGO, ILLINOIS, ASSIGNORS TO CHICAGO ORNAMENTAL IRON COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

DEVICE FOR OPERATING ELEVATOR-DOORS.

SPECIFICATION forming part of Letters Patent No. 734,484, dated July 21, 1903.

Application filed February 17, 1903. Serial No. 143,809. (No model.)

To all whom it may concern:

Be it known that we, MELVILLE P. WHITE and HERMAN STEUER, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Devices for Operating Elevator-Doors, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

Our invention relates to devices for operating elevator-doors, and especially to devices for operating sectional doors of this kind.

The object of the invention is to provide a simple, practical, and inexpensive device for operating elevator-doors, consisting of a plurality of sections, all of which are intended to slide the same way in opening and shutting.

In the accompanying drawings, Figure 1 is a view of a portion of an elevator-framework and a sectional elevator-door provided with operating mechanism embodying our invention. Figs. 2 and 3 are sections taken on lines 2 2 and 3 3, respectively, in Fig. 1. Fig. 4 is a view similar to Fig. 1 of a modified form. Fig. 5 is a vertical section taken on line 5 5 in Fig. 4.

Referring first to the form shown in Figs. 1, 2, and 3, the uprights 1 and 2 indicate the side walls of the elevator-shaft, and 3 3 3 the grillework thereof, it being understood that the view is taken from the interior of the elevator-shaft looking out. An elevator-door A is shown composed of separate sections 4 and 5. These are suitably suspended on tracks 6 6 in any usual or desired manner. A swinging rod or lever 7 is shown pivotally supported at 8 on the elevator grille or frame work and extended downwardly to the elevator-door sections. The lower end of the lever is provided with a slot 9, which engages a pin 10 on the section 4. A brace or branch lever-bar 11 is secured to the rod or lever 7 and provided with a slot 12, which engages a pin 13 on a cross-rod 14 at the top of the section 5. The lever 7, it will be seen, is pivotally supported or secured at its upper end to the elevator-framework and pivotally connected with the section 4 of the elevator-door at its lower end and with the section 5 at a point midway between its ends. It will thus be seen that when the section 4 is pushed to the right, referring to Figs. 1 and 2, it will swing the lever or rod 7, and thereby cause the same to move the section 5 to the right also. The two sections will continue to move, the section 4 moving twice as fast as the section 5, until both have assumed a position at the right-hand side of the opening forming the doorway. When the door is to be closed, the two sections will be moved to the left, the section 4 moving twice as fast as the section 5, and thereby coming into its proper position at the same time that the section 5 reaches its position.

In the modification shown in Figs. 4 and 5 the general construction is the same, except that instead of the lever 7 with its connections and mechanism a lever 15 is provided and pivoted at one side of the elevator-framework. This lever 15 is provided with two slots 16 and 17, the former of which receives and engages a pin 18 on the section 5 and the latter of which receives and engages a pin 19 on the section 4. The operation is substantially the same as that of the other construction, the section 4 moving in each direction twice as rapidly and twice as far as the section 5.

It will be seen that the above construction is simple, practical, inexpensive, and easily operated. It will be understood that changes and modifications can be made in the arrangement without departing from the spirit of the invention.

What we claim as our invention is—

1. The combination with an elevator-door consisting of several sections, each of which is provided with a pin, of a pivoted lever provided with several longitudinally-extending guideways, one for each pin, substantially as described.

2. The combination with an elevator-door consisting of two sections 4 and 5, of a lever 7 pivoted at its upper end above the door and having a slot 9 at its lower end and provided with a brace 11 secured between its ends and

projecting laterally and provided with a slot 12, and pins 10 and 13 on the sections 4 and 5 respectively, adapted to fit and work in the slots 9 and 12, the pin 13 being mounted upon a brace-piece 14 on the section 5, substantially as described.

In witness whereof we hereunto subscribe our names this 12th day of February, A. D. 1903.

MELVILLE P. WHITE.
HERMAN STEUER.

Witnesses:
A. MILLER BELFIELD,
I. C. LEE.