

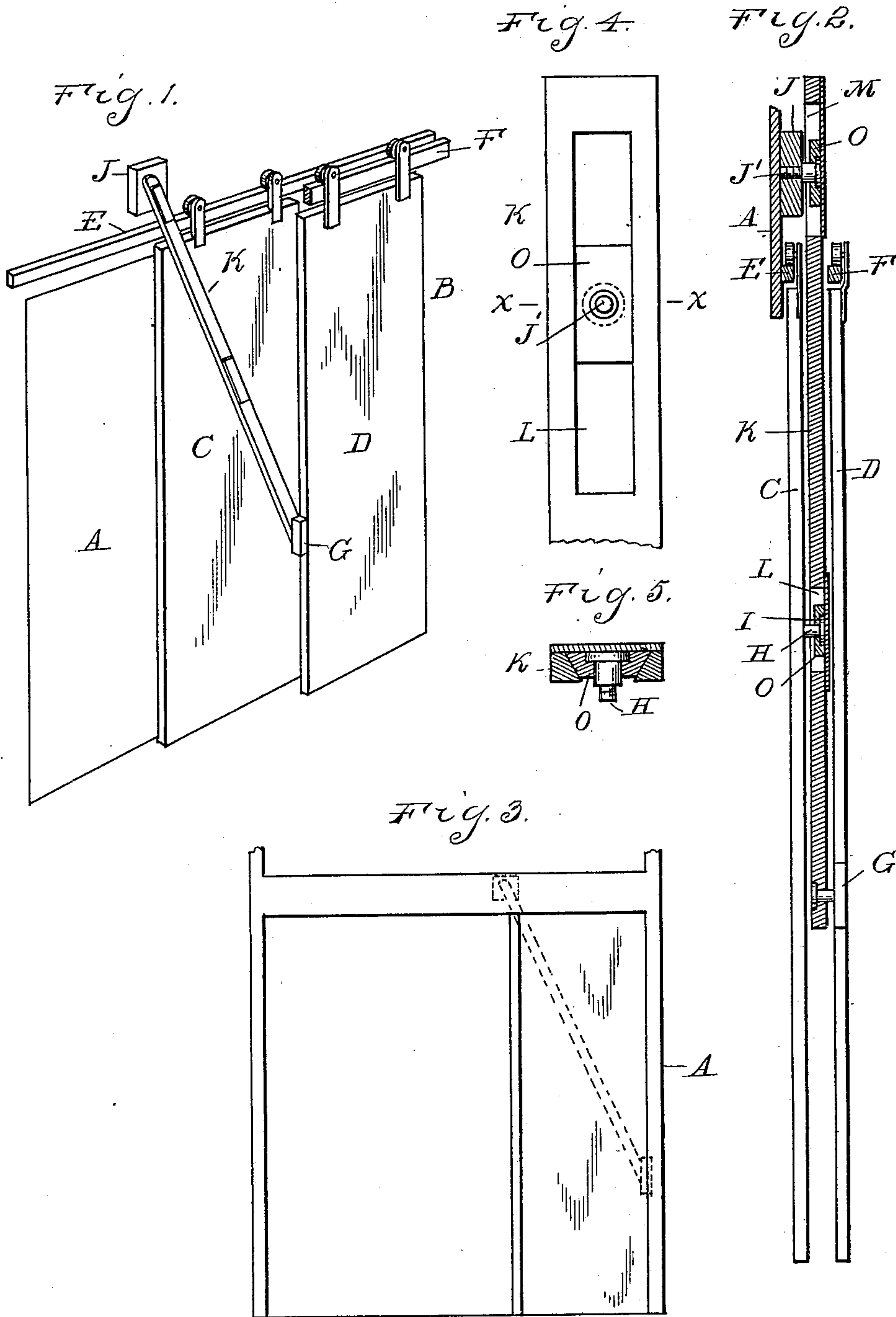
No. 669,320.

Patented Mar. 5, 1901.

R. W. GARDNER.
DOOR OR GATE.

(Application filed Oct. 15, 1900.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

RICHARD W. GARDNER, OF DETROIT, MICHIGAN.

DOOR OR GATE.

SPECIFICATION forming part of Letters Patent No. 669,320, dated March 5, 1901.

Application filed October 15, 1900. Serial No. 33,120. (No model.)

To all whom it may concern:

Be it known that I, RICHARD W. GARDNER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Doors or Gates, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates generally to a door or gate composed of a plurality of parallelly-arranged sections adapted to slide one beside another, so as to provide a wider passage-way than is obtained by the usual construction of doors; and the invention consists in a new and simple construction of mechanism for connecting the door-sections, whereby when one is moved the other or others will be also actuated.

My improved door is particularly designed for use in connection with elevators and will be shown and described in this connection. I do not desire, however, to be limited to this particular use, as it is obvious that the gate could be as readily used for other purposes.

In the drawings, Figure 1 is a perspective view looking at the inner side of the elevator-doors, showing my improved connecting mechanism applied thereto. Fig. 2 is a longitudinal section through the connecting mechanism, showing the doors in elevation. Fig. 3 is a front elevation of the open doors. Fig. 4 is an elevation of the upper end of the connecting device, illustrating its manner of attachment to the stationary bearings; and Fig. 5 is a section taken on line *x x*, Fig. 4.

The reference-letter A designates a stationary frame, and B the door, the latter being formed, preferably, in two parts, comprising an inner door-section C and an outer section D. These sections are adapted to run upon suitable tracks E and F, and said tracks are arranged some considerable distance apart, so that a space will be formed between the door-sections to permit the connecting mechanism to pass between the sections. Upon the section D is secured a block G, and upon the door-section C is a pin H, provided with a flanged head I.

J designates a stationary bearing in the form of a block and arranged, preferably,

above the door-sections, which is likewise provided with a pin J', similar to H.

My improved connecting device consists of a single bar or lever K, slotted, preferably, near its center at L and at the upper end at M, and within each slot is arranged a block O, adapted to slidably engage therein. This lever is arranged between the door-sections and is adapted to operate the same in the following manner: One end of the bar or lever is pivoted to the block G on the door-section D, and the other end of said lever has a loose pivotal connection with the stationary bearing J, the pin on said bearing being fixedly secured to the movable block O. The pin H upon the door-section C is secured in a similar manner to the block O in the slot L. As these blocks have a sliding engagement within the slots, it will be obvious that upon the movement of the door-section D the complementary section C will be actuated and will travel at less speed than the outer door-section, so that when the inner section entirely overlaps the frame A the outer section will be in a corresponding position, as plainly shown in Fig. 3.

It will be readily observed from the foregoing description of my invention that I have provided an effective means for connecting the two door-sections and that the said connecting device is so arranged as to occupy a minimum amount of space.

It is to be noticed that while I have shown the stationary bearing to which the connecting device is pivotally attached as arranged above the doors this position is not absolutely necessary, as the bearing may be arranged in other places and give the same result.

What I claim as my invention is—

1. A door or gate consisting of two overlapping door-sections, a stationary bearing, and a rigid connecting bar or lever pivoted to the bearing and to each of the sections, the lever having loose connections to permit of the change of its angularity.

2. A door or gate consisting of two overlapping door-sections, a stationary bearing arranged above the sections, and a single connecting bar or lever pivoted to the bearing and to each of the sections, said lever being

arranged between said sections and having loose connections to permit of the change of its angularity.

3. A door or gate consisting of two over-
5 lapping door-sections, a stationary bearing above the sections, a pin upon the bearing, and a similar device upon the inner door-section, and a connecting bar or lever, having
10 formed therein in proximity to its center, a longitudinal slot and in the upper end thereof a similar slot, said lever being pivoted to the

outer door-section, and the slots in said lever engaging the pins upon the complementary section and bearing, substantially as described.

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

RICHARD W. GARDNER.

Witnesses:

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