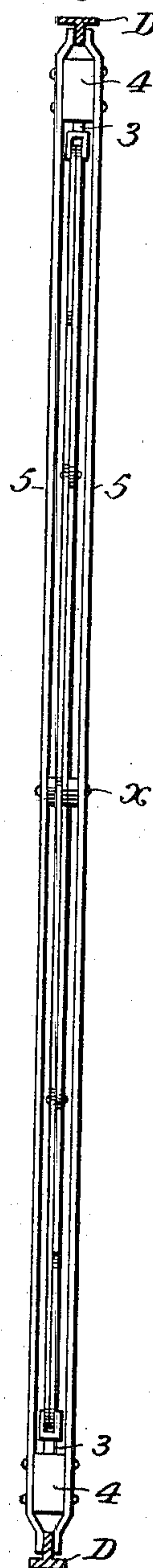
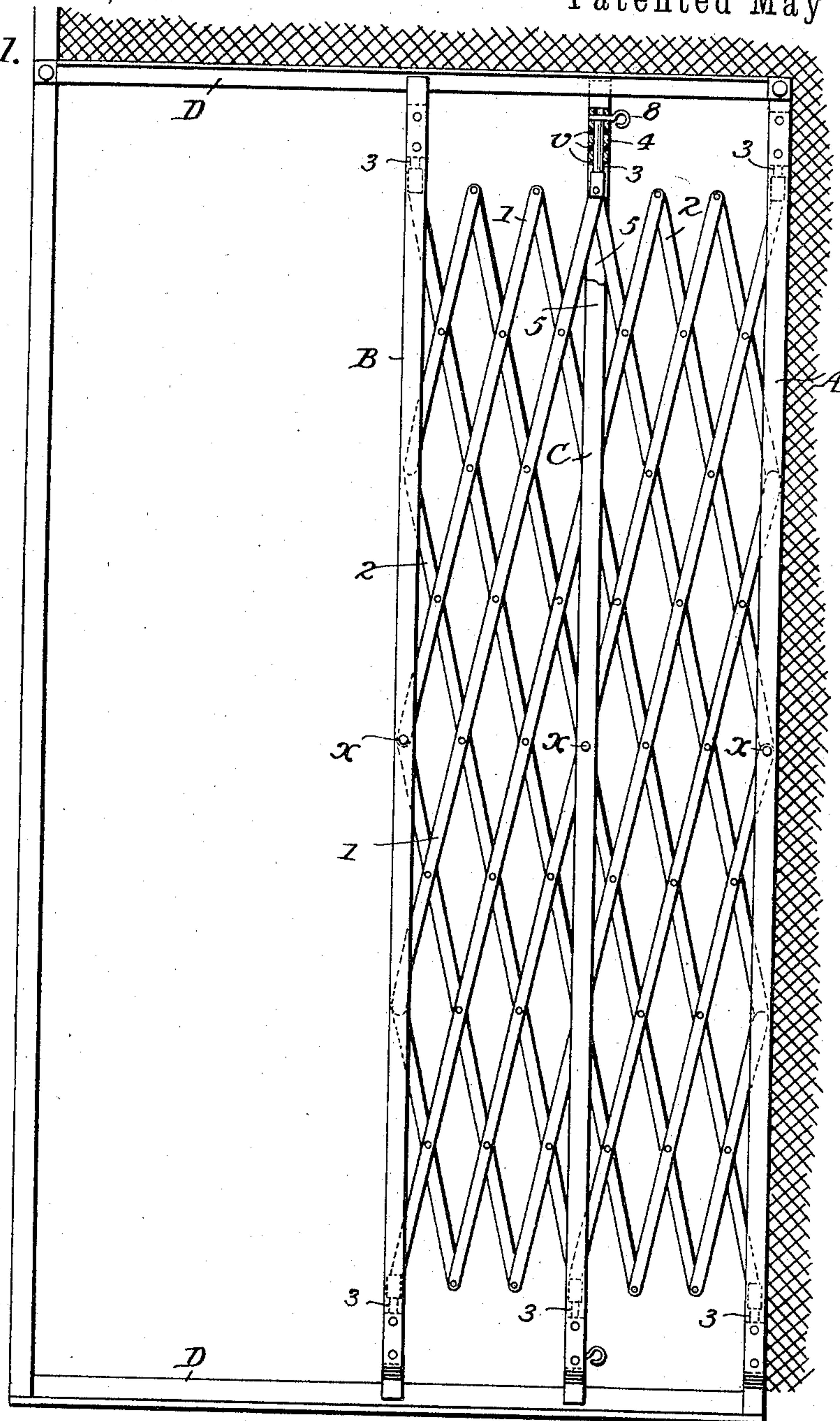


2 Sheets—Sheet 1.

Patented May 4, 1897.

No. 582,098.



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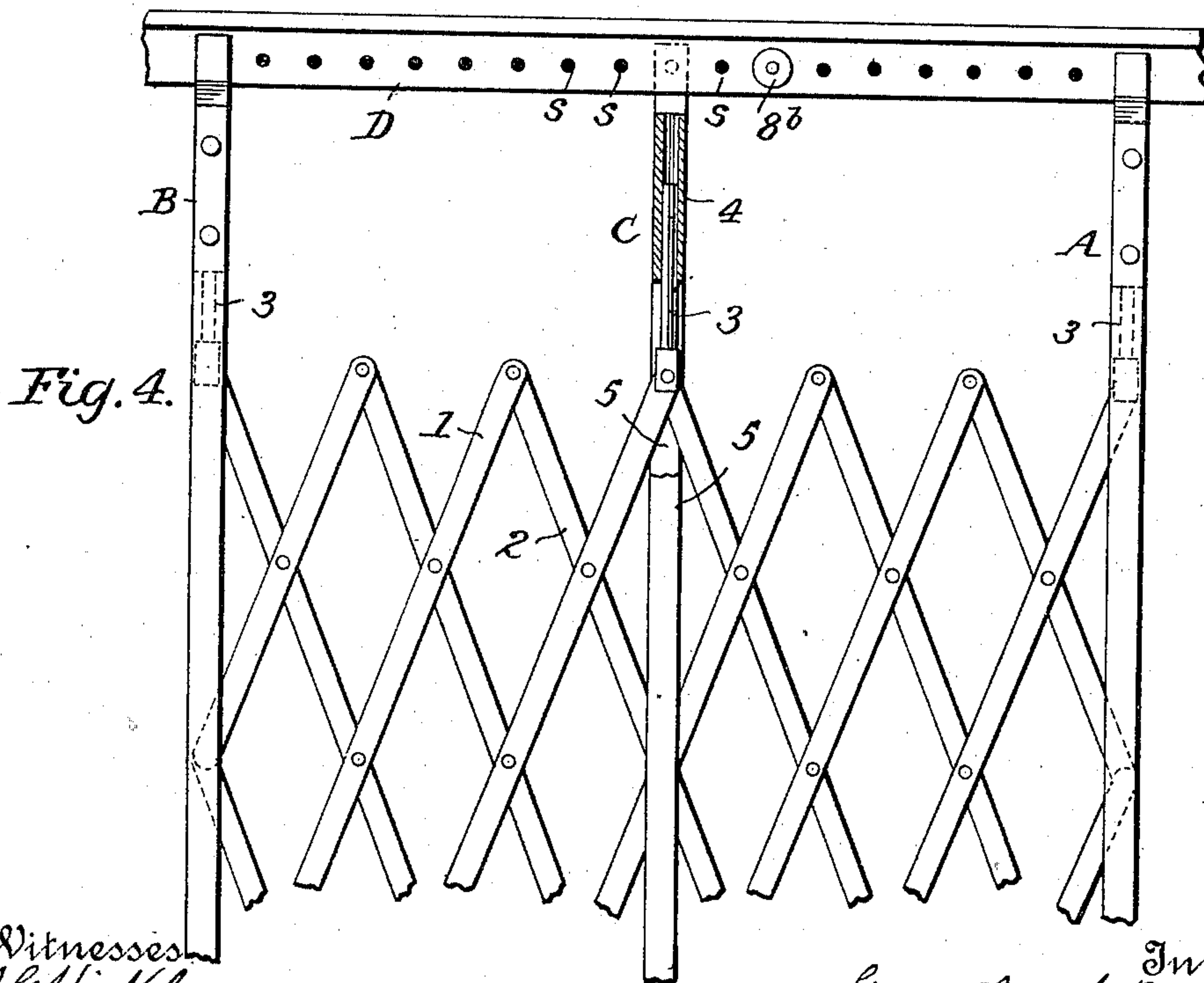
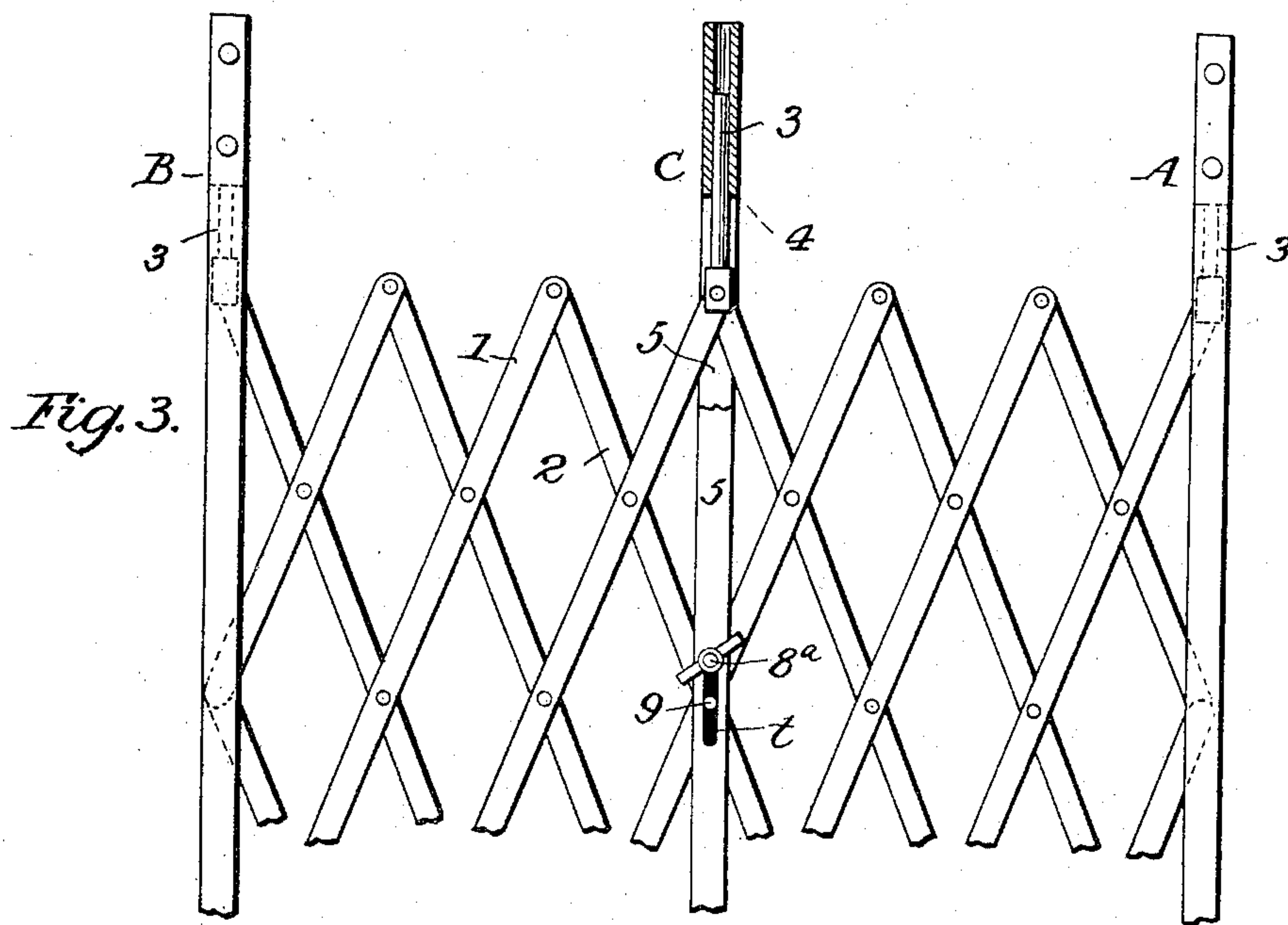
(No Model.)

2 Sheets—Sheet 2.

G. A. RUEMMLER & E. KUECHLE.  
LATTICE GATE.

No. 582,098.

Patented May 4, 1897.



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# UNITED STATES PATENT OFFICE.

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## LATTICE GATE.

SPECIFICATION forming part of Letters Patent No. 582,098, dated May 4, 1897.

Application filed April 4, 1896. Serial No. 586,217. (No model.)

*To all whom it may concern:*

Be it known that we, GUSTAV ADOLF RUEMMLER and EDWARD KUECHLE, citizens of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Lattice Gates, of which the following is a specification.

It is often necessary to provide the doorways of elevator-wells, and sometimes elevator-cars, with gates which for some purposes must open to a wider extent than for others. For instance, elevator-cars may be provided with gates which will open to a certain extent for the ingress and egress of passengers and to a greater extent for the purpose of taking out freight of different kinds. It is also desirable in many instances to make use of what are termed "lattice" or "lazy-tongs" gates, where two series of bars cross each other and are pivoted at the crossing-points; but heretofore no means have been provided whereby such gates could be effectively opened to different degrees, and in such cases two gates have been used, one of which is temporarily fixed in place and the other of which is opened or closed for passenger use, both being opened when freight has to be carried.

In order to make use of a lazy-tongs structure, and at the same time secure any desired amount of opening for ordinary purposes, we provide a lazy-tongs of such a character that it may be thrown back to secure an opening of the maximum extent, and we provide the same with a stop device of suitable character, whereby the extent to which the gate is opened in the ordinary course of operations is of a more limited degree, as fully set forth hereinafter and as illustrated in the accompanying drawings, in which—

Figure 1 illustrates the opening of an elevator-well with our improved gate device, showing the stop device in part section. Fig. 2 is an edge view of the gate; Fig. 3, a side view of part of the gate, illustrating other stop devices; Fig. 4, another side view of part of a gate, showing the stop device as applied to one of the guides of the gate.

The body of the gate consists of one series

of blades or bars 1 1 and another series of blades or bars 2 2, which cross each other at regular intervals and are pivoted at their crossing-points, as in other lazy-tongs structures.

The gate is provided at opposite ends with vertical bars A B, each of which consists of two parallel strips 5 5, between which the edges of the lattice structure extend, the frame being pivoted between these strips at one point *x*, and at the corners of the lattice structure are connected guide-rods 3 of any suitable shape, which extend into vertical openings in blocks 4, riveted between the strips 5 5, so that the guide-rods can slide back and forth in the openings in the blocks as the side bars A B are separated or brought together.

The gate when arranged within the doorway of an elevator-well or other place is generally guided by upper and lower guide-strips D D, which, as shown, are of angle or T iron, the side strips 5 5 of the bars A B being bent inward, so as to receive the vertical flanges of the angle or T iron between them, and the bar A is secured fixedly in place, while the bar B can be moved back and forth as the gate is extended and contracted.

The stop for limiting the movement of the gate, so that, for instance, it will only uncover the opening for one-half its width, may be constructed and arranged in different ways. Thus, as shown in Fig. 1, the gate is provided with a central bar C, substantially like the bars A B, and the movement of the guide-rod 3 in the opening of the block 4 of the bar C is limited by means of a pin 8, which may be set to different positions—as, for instance, by inserting it in one or other of the series of sockets *v v v*, extending transversely through the blocks 4.

By setting the pin 8 in different positions the extent to which it is possible to push back the bar A and contract the gate and uncover the opening may be varied. As shown in Fig. 1, the parts are so adjusted that the bar A may be pushed back until one-half of the opening in the wall of the elevator-well is uncovered, thus permitting the egress and ingress of passengers to the desired extent,



while effectually obstructing the remaining portion of the opening at such times. When, however, freight has to be put in or taken from the elevator-cage, the pin 8 may be re-  
 5 moved, when the bar B may be pushed back, so as to correspondingly increase the width of the opening to the elevator.

In the construction shown in Fig. 3 the stop device consists of a stud or pin 8<sup>a</sup>, adjustable  
 10 vertically in a slot *t* in the bar C and adapted to be struck by a pin 9, extending from the gate. By setting the pin 8<sup>a</sup> in different positions the extent to which the pin 9 may move is controlled and the extent to which the lat-  
 15 tice gate is opened or closed is determined.

In the construction shown in Fig. 4 the stop-pin 8<sup>b</sup> is upon the guide-rail D, the said pin being set to any desired position in open-  
 ings *s s s*.

20 It will be seen that although we have shown different means for supporting the stop-pin so as to contact with different parts of the lattice gate the result is the same in each case—that is, the extent to which the gate is  
 25 closed is determined by the position in which the pin is put, and it will be evident that other stop arrangements may be employed to secure the same result.

Without limiting ourselves to the precise  
 30 construction and arrangement of parts shown, we claim as our invention—

1. The combination in a lattice gate, of a stationary and a movable end bar, bars cross-  
 35 ing each other and pivoted together and to the end bars, the ends of said cross-bars being free to move relative to the end bars as the movable end bar is moved toward or from the stationary end bar, but in a transverse direction to the line of such movement, and  
 40 a movable stop device operating in connection with the gate for limiting its contraction, substantially as described.

2. The combination in a lattice gate, of a stationary and a movable end bar, bars cross-  
 45 ing each other pivoted together and to the end bars, the ends of said cross-bars being free to move relative to the end bars as the movable end bar is moved toward or from the stationary end bar, but in a transverse direction to the line of such movement, guides  
 50 on the end bars for the cross-bars, and a removable stop device operating in connection with the gate for limiting its contraction, substantially as described.

3. The combination in a lattice gate of end  
 55 bars, intermediate cross-bars pivoted together, a rod 3 connected with the lattice-work of the gate, a socketed block adapted to receive said rod and provided with transverse openings, and a stop-pin adapted to  
 60 said openings, substantially as set forth.

4. The combination in a lattice gate, of end bars A, B, provided with blocks having re-  
 cesses or sockets, and cross-bars pivoted to-  
 65 gether and to the end bars, and provided with guide-rods 3 adapted to the sockets in the blocks, substantially as set forth.

5. The combination in a lattice gate, of a stationary and a movable end bar provided  
 70 with recesses or sockets, cross-bars pivoted together and to the end bars, and provided with guide-rods adapted to the sockets in the end bars, and a removable stop device in-  
 75 termediate the end bars, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

GUSTAV ADOLF RUEMMLER.  
 EDWARD KUECHLE.

Witnesses:

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