

No. 824,173.

PATENTED JUNE 26, 1906.

H. E. CLARK.
EMERGENCY EXIT DOOR LOCK.
APPLICATION FILED DEC. 9, 1905.

FIG. 1.

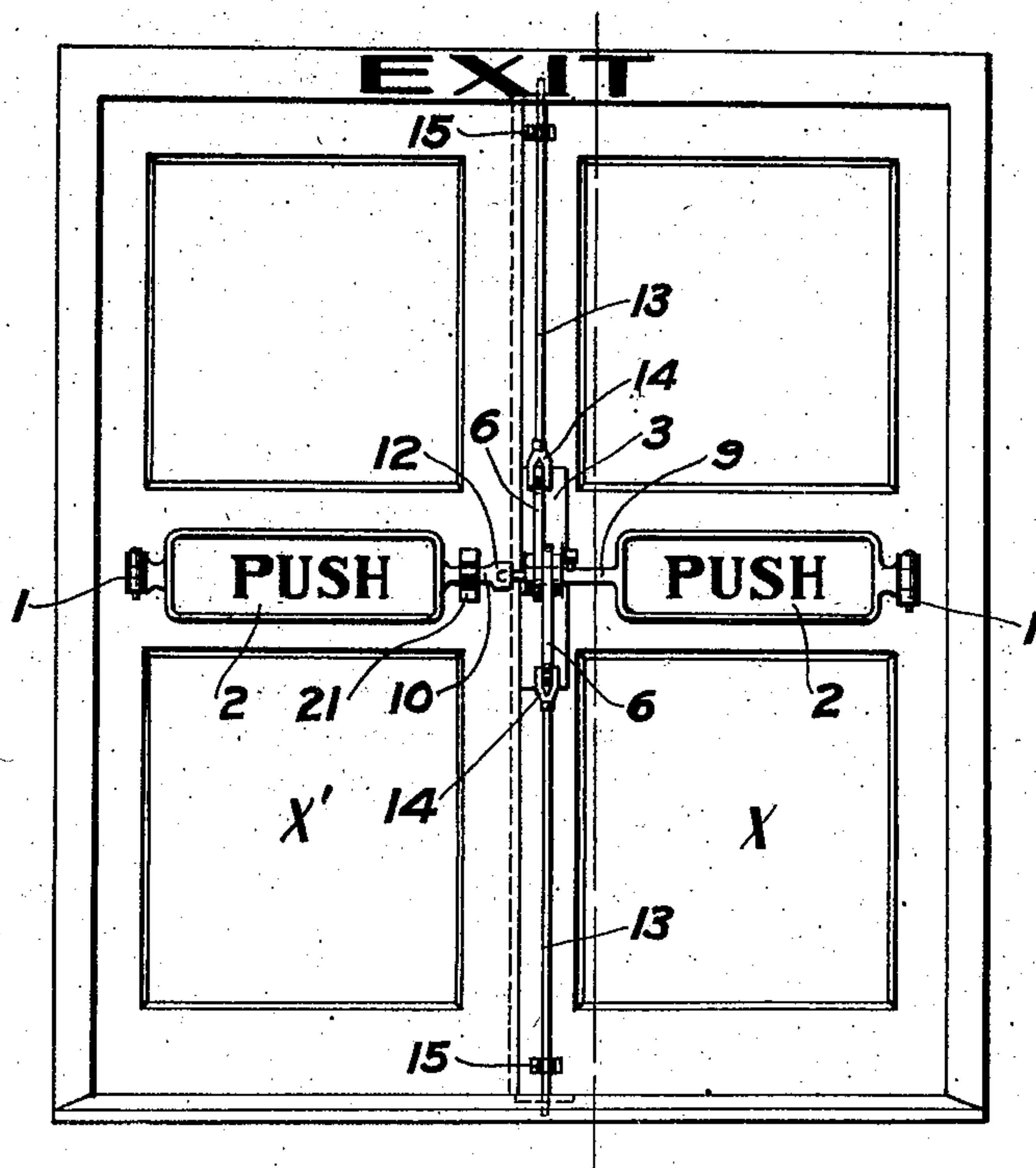


FIG. 2.

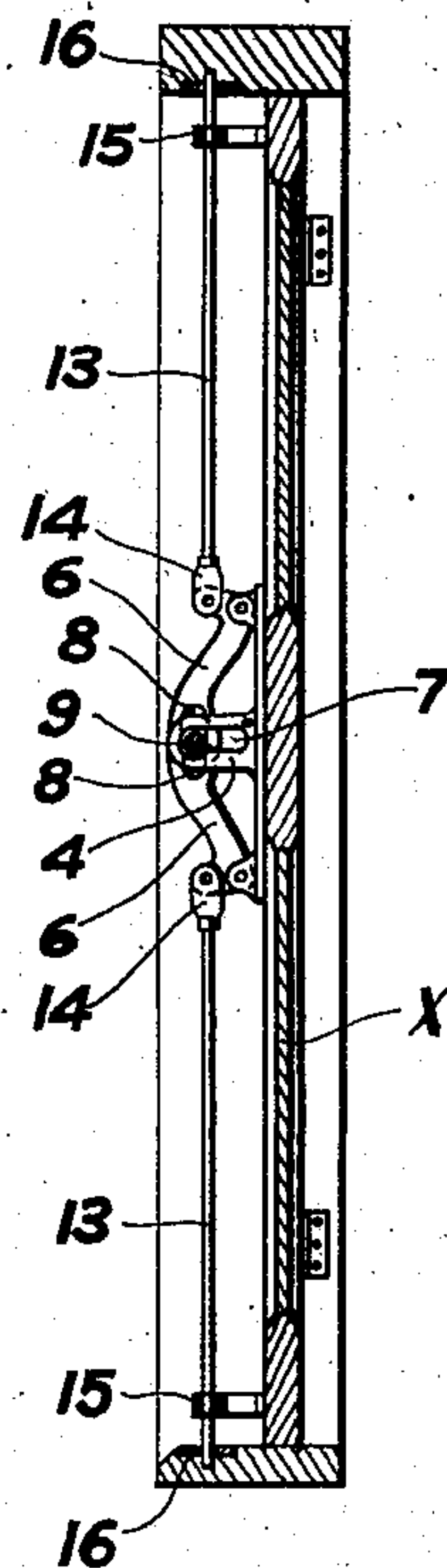


FIG. 3.

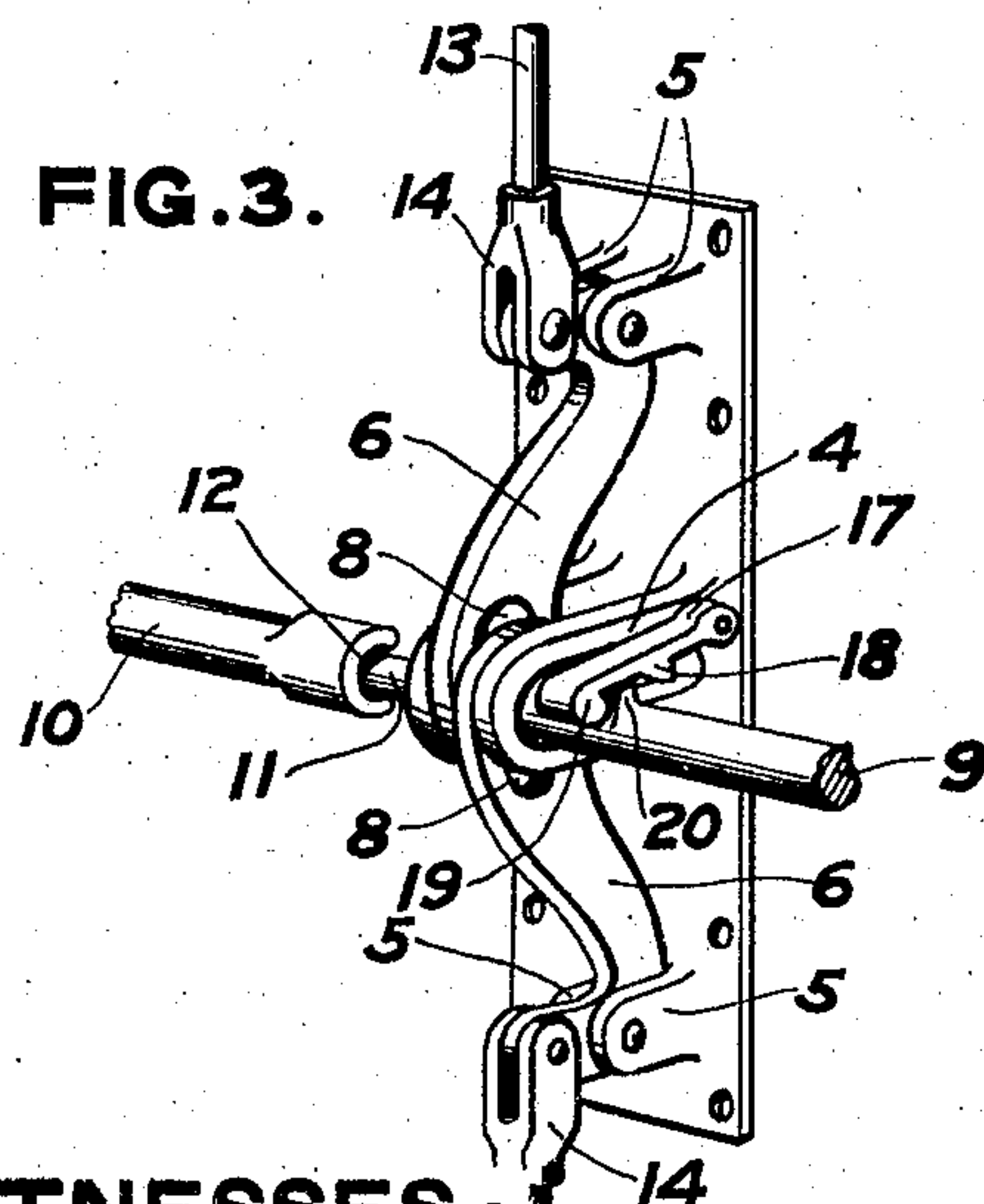
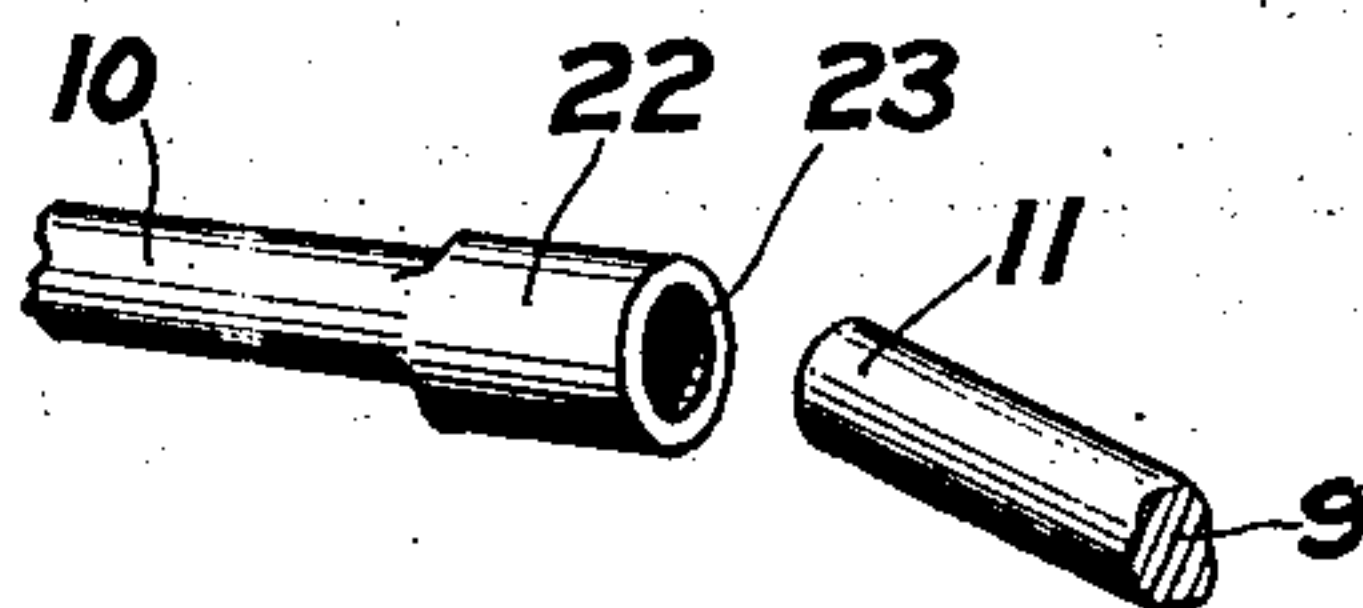


FIG. 4.



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HUGH ELMER CLARK, OF ROCHESTER, NEW YORK.

EMERGENCY EXIT-DOOR LOCK.

No. 824,173.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed December 9, 1905. Serial No. 291,162.

To all whom it may concern:

Be it known that I, HUGH ELMER CLARK, a citizen of the United States, and a resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Emergency Exit-Door Locks, of which the following is a specification.

My invention relates to improvements in emergency exit-door locks.

This invention is an improvement upon that set forth and described in Letters Patent of the United States No. 805,411, issued to me on the 21st day of November, 1905, and is intended to adapt that invention to certain conditions not before considered.

In the drawings, Figure 1 is a front elevation of double doors embodying this invention. Fig. 2 is a vertical section on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of certain details, and Fig. 4 shows in the relation of two of the parts another detail of construction.

Double doors X and X' are shown, which are hinged to the casing in the usual manner, so that they swing outwardly. Brackets 1 1 are attached to said doors, respectively, to which the hinged plates 2 2 are attached, respectively. A plate 3 is also attached to one of said doors, as X, which carries the bracket 4 (see Fig. 2) and the two pairs of lugs 5 5 and 5 5. (See Fig. 3.) The operating-levers 6 6 are pivoted between the lugs 5 5 and 5 5, respectively. The plate 4 has a horizontal slot 7 and the levers 6 6 vertical slots 8 8, respectively. Rods 9 and 10 are on the ends of the plates 2 2, respectively. One of these rods 9 passes through all three of said slots 7, 8, and 8 and when closed its free end 11 enters a socket 12 on the end of the other rod 10. Locking-bolts 13 13 are pivoted to the levers 6 6, respectively, on the opposite side of the fulcrums of said levers from their slots 8 8 by yokes 14 14. The locking-bolts run through guides 15 15 on the door X and engage socket-plates 16 16, which may be in the top and bottom of the door-casing or in any other suitable place. A latch 17, that is pivoted to the door X at any suitable point adjacent to the rod 9, (in the drawings it is shown pivoted to the side of the plate 4,) carries a shoulder 18, that is adapted to engage a lug 20 upon said rod 9.

Normally the parts take the positions shown in Figs. 1 to 3, in which the rod 9 lies in the socket 12 on the other rod 10 and the head

19 of the latch 17 rests upon the lug 20 on said rod 9. In this position the locking-bolts 13 13 engage the sockets 16 16, respectively, and lock the door shut. When pressure is exerted upon either of the plates 2 2, the rod 9 is forced through the length of the slot 7 in the plate 4, tilting the operating-levers 6 6, and thereby retracting the bolts 13 13 and unlocking the door X, so that both doors can swing open. A rabbit-strip or other suitable device upon one of the doors (represented by dotted lines in Fig. 1 as attached to the outside of the door X) prevents the door X' from being opened unless the other door X is also opened, and a horizontally-slotted bracket 21 is shown for supporting at its outer end the plate 2 on the door X' by receiving the rod 10. When the rod 9 is forced inwardly to retract the bolts 13 13, its lug 20 is engaged by the shoulder 18 on the latch 12, and the bolts are retained in their retracted positions until the rod 9 is released from the latch, so that the bolts cannot come into contact with the casing to mar it or to prevent the door from being closed.

The socket 12 on the rod 10 is represented in Fig. 1 as open on its outer side; but in Fig. 4 another form of socket 22 is shown, which is only open to receive the rod 9 at its end 23. When the socket shown in Fig. 4 is used, both doors are closed at the same time, so that the rod 9 will enter the socket 21.

What I claim is—

1. In an automatic door-lock, a door; a horizontally-movable part, hinged to the door; a guide-plate on said door, having a horizontal slot for the free end of said horizontally-movable part; an operating-lever pivotally supported upon said door, having a slot spanning the free end of said horizontally-movable part; a bolt on said door adapted to be operated by said lever; a socket in the door-casing adapted to be engaged by said bolt; and automatic means upon said door for locking said horizontally-movable part when at the inner end of the horizontal slot in said guide-plate, whereby said bolt is locked in its retracted position.

2. In an automatic door-lock, a door; a horizontally-movable part, hinged to the door; a guide-plate on said door, having a horizontal slot for the free end of said horizontally-movable part; an operating-lever pivotally supported upon said door, having a slot spanning the free end of said horizontally-movable part; a bolt on said door adapt-

ed to be operated by said lever; a socket in the door-casing adapted to be engaged by said bolt; and a latch pivoted upon the door and adapted to engage said horizontally-movable part when at the inner end of the horizontal slot in said guide-plate.

3. In an automatic door-lock, a pair of swinging, meeting doors; a plate hinged to each door, each plate being adapted to move horizontally to and from its door, and one of said plates having a projecting rod, and the other a socket adapted to contain the end of said rod when said doors are closed together; a guide-plate upon that door that carries the rod, having a horizontal slot for said rod; an operating-lever upon the same door, adapted to be engaged by said rod; a bolt on said door, adapted to be operated by said lever; and a socket in the door-casing, adapted to be engaged by said bolt.

4. In an automatic door-lock, a pair of swinging, meeting doors; a plate hinged to each door, each plate being adapted to move horizontally to and from its door, and one of said plates having a projecting rod, and the other a socket open on its outer side so as to receive said rod when the rod-carrying door is closed after the other door; a guide-plate upon that door that carries the rod, having a horizontal slot for said rod; an operating-lever upon the same door, adapted to be engaged by said rod; a bolt on said door, adapted to be operated by said lever; and a socket in the door-casing, adapted to be engaged by said bolt.

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