

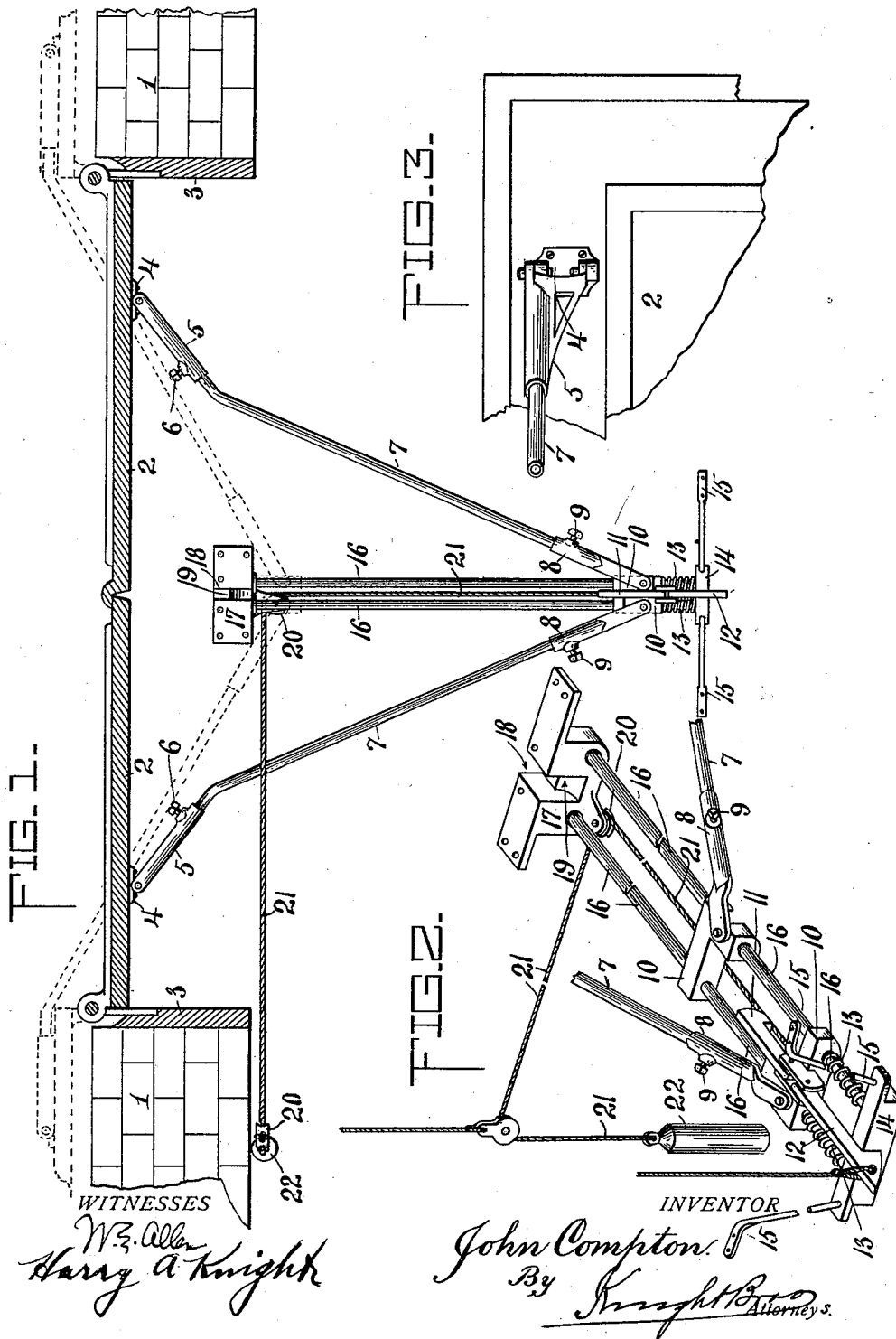
No. 646,205.

Patented Mar. 27, 1900.

J. COMPTON.
AUTOMATIC DOOR OPENER.

(Application filed Dec. 30, 1899.)

(No Model.)



UNITED STATES PATENT OFFICE.

JOHN COMPTON, OF ATCHISON, KANSAS.

AUTOMATIC DOOR-OPENER.

SPECIFICATION forming part of Letters Patent No. 646,205, dated March 27, 1900.

Application filed December 30, 1899. Serial No. 742,091. (No model.)

To all whom it may concern:

Be it known that I, JOHN COMPTON, a citizen of the United States, and a resident of Atchison, in the county of Atchison and State of Kansas, have invented certain new and useful Improvements in Door-Openers, of which the following is a specification.

The object of my invention is to produce an automatic opener for the doors of fire-patrol or other like stations; and my invention consists in a certain novel arrangement of parts for accomplishing said object, as well as in the parts and combination of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a top plan of a pair of doors having my invention applied thereto. Fig. 2 is a perspective view of the opening appliance detached, some of the parts being broken away. Fig. 3 is a detail view illustrating the attachment of an operating-arm to the door.

1 represents a doorway, in which doors 2 are suitably hinged to the casing 3.

4 represents the bracket-hinges of sockets 5, which sockets are provided with set-screws 6 and receive in their outer ends levers 7, whose inner ends are secured in sockets 8 by means of set-screws 9. The levers 7 are thus made independently adjustable at their respective ends.

10 10 are a pair of sliding blocks of substantially L shape, to which the sockets 8 are respectively hinged and which are set one in advance of the other, so that the inner one may force the outer one outward in opening the doors, while the said blocks may move independently inward, the inner in advance of the outer, for separately closing the doors.

11 represents a latch hinged to the inner block and engaging the outer block when the blocks are together, and 12 is a latch also hinged to the inner block and engaging a support 14 for locking the inner block, and through it the outer block, in the inner position.

13 are buffer-springs interposed between the inner block 10 and the support 14, which are compressed by the act of closing the doors and which, when the latch 12 is released, impart an outward impulse to the blocks in start-

ing the opening movement. The support 14 is suspended in any suitable manner—as, for instance, by hangers 15—and said support receives the inner ends of the slide-rods 16, upon which the blocks 10 and the springs 13 are mounted. The outer ends of the rods 16 are fixed in a support 17, which may be conveniently attached to the top of the door-casing, said support 17 being provided with a slot 18, formed at bottom with a cam-face 19, which engages the latch 11 when the blocks are forced outward conjointly and raises said latch, so that thereafter the doors may be closed independently. The latch 12 has an operating-cord by which it may be released, and when so released the blocks are started outward by the springs 13, and their outward movement, which results in the simultaneous opening of the doors, is completed by the cord 21, passing around a pulley 20 and thence guided in any suitable manner to permit the free action of a weight 22.

By having the doors connected in their operation and opening simultaneously, they are evenly balanced and pressure against one will be transmitted to the other and they will operate evenly, quickly, and without jar or slam.

It will thus be seen that I have provided an automatic door-opener well adapted for carrying out the several objects enumerated, and of substantial and cheap structure, and certain in its operation under any and all conditions.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. An opener for double doors comprising a pair of levers adapted for attachment at their outer ends to the respective doors, suitable guides for the inner ends of said levers, and a latch for detachably connecting said inner ends.

2. In an automatic opener for double doors, the combination of connections through which the respective doors are moved, a latch for holding the operating ends of said connections together, a locking-latch for holding said ends in inner position, and means for releasing said locking-latch; as explained.

3. In an automatic opener for double doors, the combination of the operating connections

for the respective doors, a latch for holding the inner ends of said connections together, and a tripping device for said latch.

4. In an automatic opener for double doors, the combination of the levers connected at their outer ends with the respective doors, sliding blocks to which the inner ends of said levers are connected, and which project one in front of the other so that one may move the other, and a latch for connecting said blocks together; substantially as set forth.

5. An automatic opener for double doors comprising two levers hinged respectively to the doors, sliding blocks to which the levers are respectively secured, a latch pivoted to one of said blocks and engaging the other, and a locking-latch also pivoted to one of said blocks and engaging a fixed point; substantially as set forth.

6. In an automatic opener for double doors, the combination of the levers adapted for hinging connection at their outer ends to the doors, blocks to which the inner ends of said levers are connected, guides upon which said blocks slide, a flexible connection operating said blocks outwardly upon their guides, a latch for holding said blocks in locked position, and means for operating said latch; substantially as set forth.

7. In an automatic opener for double doors, the combination of the levers adapted for hinging connection at their outer ends to the doors, blocks to which the inner ends of said levers are connected, guides upon which said blocks slide in the act of opening the doors, springs upon said guides compressed by the blocks in their inner position, and means for holding said blocks in their inner position in opposition to the said springs until said hold-

ing means is released; substantially as set forth.

8. In an opener for double doors, the combination of the supports, the slide-rods having their ends secured in said supports, the blocks sliding on said supports and projecting one in front of the other, the rods each connected at one end to the door and at its other end to a block, and means for detachably securing the blocks together; substantially as set forth.

9. In an automatic opener for double doors, the combination of the supports, the slide-rods secured in said supports, the blocks sliding upon said rods, levers connected at their inner ends to said blocks and at their outer ends to the doors, a latch for holding said blocks together, and a cam-face in one of the supports, engaging said latch for releasing it as the blocks approach the support; substantially as set forth.

10. In an automatic opener for double doors, the combination of the door-operating levers, the sliding blocks to which said levers are connected, the latch for holding said blocks together, and a cam for releasing said latch; substantially as set forth.

11. In an automatic opener for double doors, the combination of the door-operating levers, the sliding blocks to which the ends of the respective levers are connected, slide-rods upon which said blocks slide, a latch for holding the blocks in their locked position, and a support for the slide-rods which is engaged by said latch; substantially as set forth.

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Witnesses:

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