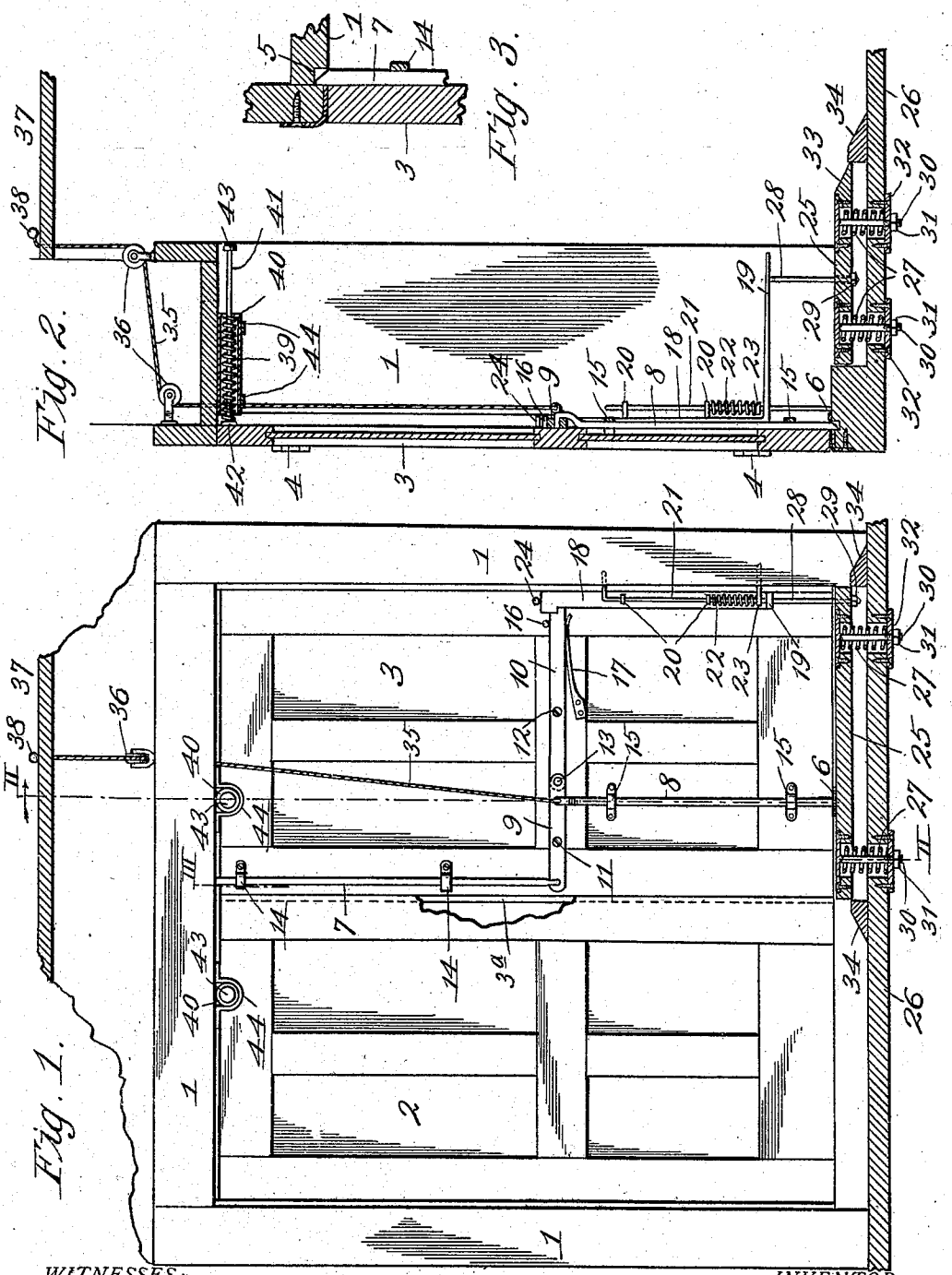
T. A. STEVENSON.

MEANS FOR AUTOMATICALLY UNLOCKING DOORS OF PUBLIC BUILDINGS.

APPLICATION FILED JUNE 18, 1908.

911,176. Patented Feb. 2, 1909.



WITNESSES:

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MEANS FOR AUTOMATICALLY UNLOCKING DOORS OF PUBLIC BUILDINGS.

No. 911,176. Specification of Letters Patent. Patented Feb. 2, 1909.

Application filed June 18, 1908. Serial No. 439,167.

To all whom it may concern:

Be it known that I, THEODORE A. STEVENSON, a citizen of the United States, residing at Lansing, in the county of Leavenworth and State of Kansas, have invented certain new and useful Improvements in Means for Automatically Unlocking Doors of Public Buildings, of which the following is a specification.

My invention relates to improvements in means for automatically unlocking the doors of public buildings, and it consists in the novel construction, combination, and arrangement of parts hereinafter described, pointed out in the claims, and illustrated in the accompanying drawing, in which:

Figure 1 represents an elevation of a door equipped with my invention. Fig. 2 is an irregular vertical section of the same on line II—II of Fig. 1. Fig. 3 is an enlarged vertical section on line III—III of Fig. 1.

1 designates a door-casing, and 2 and 3 a pair of doors secured to the casing by hinges 4 to open outwardly. Casing 1 is provided with an upper notch or keeper 5 and a lower keeper 6 to receive the ends of a pair of latch-bars 7 and 8, respectively. Door 2 is held closed by a lip 3^a, on door 3 in the usual manner. Latch-bars 7 and 8 are pivotally connected to a section 9 of a compound latch-lever consisting of section 9 and a section 10, pivotally secured to door 3 by screws 11 and 12, respectively, and pivotally connected by a pin 13. Latch-bars 7 and 8 extend through guides 14 15, respectively, secured to door 3.

16 designates a stop-pin projecting from door 3 to limit the upward movement of the free end of section 10, which is normally held against pin 16 by a spring 17 in order to hold the latch-bars in engagement with their keepers.

18 designates an unlocking-bar which engages the free end of section 10, and is provided with a handle 19 whereby it may be depressed to operate the compound lever for the purpose of releasing the latch-bars from the keepers. Bar 18 is also provided with a pair of eyes 20 through which a guide-rod 21, secured to the door-casing, extends. Said guide-rod is provided with an expansion-spring 22 abutting at its ends against a screw-eye 23 and one of eyes 20 for the purpose of lifting bar 18 against a stop-pin 24 after it has been depressed to unlock the door. By thus automatically restoring bar 18 to its normal position it will be ready to engage the notched free end of the compound lever when the doors are closed.

25 designates an operable platform which is yieldingly supported above the floor 26 by expansion springs 27 and connected to handle 19 by a rod 28 which extends through the platform and is provided at its lower terminal with a nut 29 which engages the underside of the platform so that when the latter is depressed by stepping thereon, the latch-bar 18 will be drawn downward and through the instrumentality of the compound latch-lever release the latch-bars from the keepers. Rod 28 extends loosely through the platform so that the latch-bar 18 may be depressed to unlock the doors without depressing the platform. The upward movement of the platform 25 is limited by bolts 30 depending therefrom, and nuts 31 engaging the lower ends of the bolts. Bolts 30 extend through springs 27, and are secured to the platform, while nuts 31 normally engage the undersides of disks 32 secured to the underside of the floor. The forward edge 33 of the platform is beveled to prevent persons from tripping over the same, and in order to prevent them from catching their feet beneath the platform I provide a plurality of guard-strips 34 secured to the floor and extending around the front and side edges of the platform.

While the latch-bars may be released from the keepers by either stepping upon the platform 25 or depressing the unlocking-bar 18, I also provide means extending up to the floor above for releasing the latches so that when the invention is applied to the outer doors of a school building, a teacher on the upper floor may release the latches before the school children reach the doors. Simple means for performing this desirable operation consists in a cable 35 secured at its lower end to latch-bar 8 and extending upward around a pair of guide-pulleys 36 to an upper floor 37 where it is provided with a knob 38.

When the latches are released the doors are automatically opened by expansion springs 39, inclosed in casings 40, and embracing stems 41 extending through the casings. Stems 41 are provided at their ends with heads 42 43, the former of which bear against the inner sides of the doors, while the latter are adapted to contact with the rear sides of casings 40 to limit the expansion of the springs and prevent the same from leaving the casings 40, which latter are secured to the door-casing by straps 44.

All of the locking mechanism is preferably applied to door 3 and the platform 25 extends only the width of said door so that when desired door 2 may be left open for ingress and egress without operating either the locking mechanism or the platform.

Having thus described my invention, what I claim is:

1. In combination, a pair of doors, a casing therefor, locking devices on one of said doors adapted to engage keepers in the casing, a lever pivotally connected to said locking devices and the door carrying the same, and an operable platform suitably connected to said lever for actuating the same.

2. In combination, a door, a casing therefor, keepers in the upper and lower portions of said casing, a compound lever pivoted to the door, a pair of latch-bars pivoted to said lever and adapted to engage the keepers, an unlocking-bar engaging one end of the lever and slidably secured to the casing, and an operable platform to which said unlocking-bar is connected.

3. In combination, a door, a casing therefor, keepers in the upper and lower portions of said casing, a compound lever pivoted to the door, a pair of latch-bars pivoted to said lever and adapted to engage the keepers, an unlocking-bar engaging one end of the lever, and an operable platform for actuating the unlocking-bar, said unlocking-bar being loosely connected to the platform so that it may be actuated independently thereof.

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

THEODORE A. STEVENSON.

Witnesses:

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