E. F. FLORCKEN.

DEVICE FOR OPERATING DOOR BOLTS.

APPLICATION FILED APR. 19, 1915.

1,180,123. Patented Apr. 18, 1916.

Fig. 1.

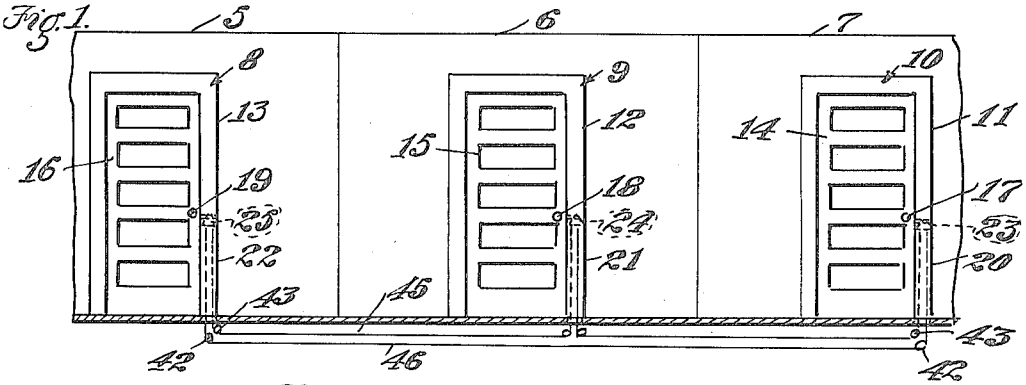


Fig. 2.

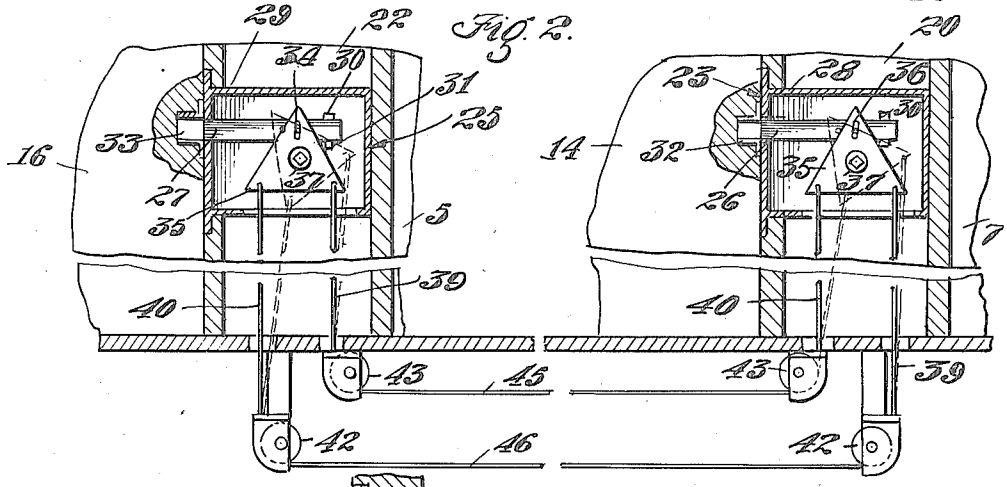


Fig. 3.

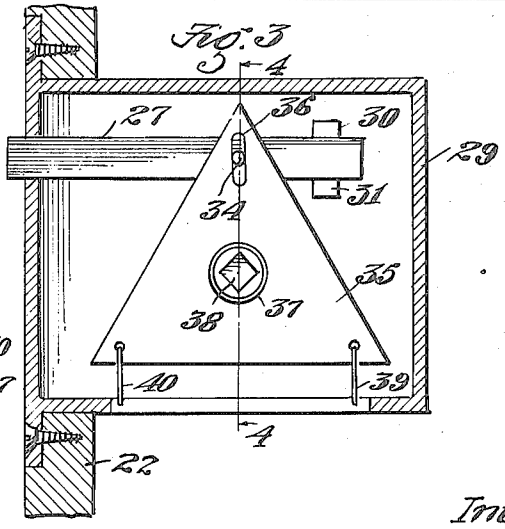
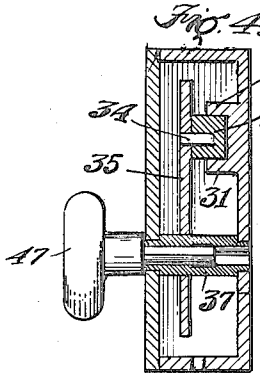


Fig. 4.



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UNITED STATES PATENT OFFICE.

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DEVICE FOR OPERATING DOOR-BOLTS.

1,180,123. Specification of Letters Patent. Patented Apr. 18, 1916.

Application filed April 19, 1915. Serial No. 22,248.

To all whom it may concern:

Be it known that I, EMIL F. FLORCKEN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Devices for Operating Door-Bolts, of which the following is a specification.

This invention relates to devices for operating door bolts, and the primary object thereof is to provide each of two or more doors with a bolt by means of which the door may be locked, and means by which the bolts are connected so that a movement of one bolt causes corresponding movements in the other bolts.

It is another obect of this invention to provide door bolt mechanism for a number of doors leading into one room, which is effectively concealed in the door posts and does not require any alteration of the door or its lock, except the insertion of a keeper in the door for the bolt.

Heretofore in apartments or hotels where a bathroom is situated for convenient use by occupants of rooms adjacent the bathroom, and entrance to which is secured by doors opening into the several rooms, it has been necessary in order to secure privacy that the doors of the bathroom leading to rooms other than that of the person using the bathroom be locked. If in leaving the bathroom the doors leading to the other rooms are not unlocked, access thereto cannot be obtained by others except through the room of the person last using the bathroom; this results in great inconvenience.

By means of my improved door bolt construction the doors can be locked from the inside of the bathroom, so as to prevent other persons from entering. On leaving the bathroom it is necessary to unbolt the door and in so doing the other doors are also unbolted, leaving the bathroom accessible to occupants of other rooms.

I attain these objects by means of the embodiment of my invention illustrated in the accompanying drawing, in which:

Figure 1 is a development of three walls of a room, each having a door equipped with my improved lock device. Fig. 2 is a diagrammatic view illustrating my door bolt construction applied to two doors. Fig. 3 is a detail view in elevation of a bolt and operating means therefor. Fig. 4 is a view taken on the line 4—4 of Fig. 3.

More specifically, 5, 6 and 7 indicate walls provided with door openings, 8, 9 and 10 in which door frames 11, 12, and 13 of the usual construction are disposed. Within the door frames are hung doors 14, 15 and 16 which are shown of the usual panel type, but may be of any other suitable construction. The doors are provided with knobs and spring latches indicated by 17, 18 and 19, whereby the doors may be maintained in closed position and easily opened from either side when unlocked. If desired, locks may also be installed in the door with keyholes for said locks upon the side of the door opposite to the bathroom. It is not necessary or desirable that the keyhole extend through the door, since the door is intended to be locked by my improved bolt construction from the inside. The absence of the keyhole extending entirely through the door, prevents peeking and gives more privacy to the occupant of the room.

In each of the door frames 11, 12 and 13 door posts 20, 21 and 22, which are hollow, have mounted therein casings provided with reciprocating latch bolts operated by my improved mechanism indicated by 23, 24 and 25.

Referring more particularly to Fig. 2 which indicates the doors in walls 5 and 7, the hollow door posts 20 and 22 have disposed therein casings 28 and 29 provided with sliding bolts 26 and 27. Casings 28 and 29 are provided with bolt openings through which sliding bolts 26 and 27 are guided. Supporting the inner ends of the bolts and acting as guides are lugs 30 and 31. In doors 14 and 16 recesses are provided which register when the door is closed, with the corresponding apertures in casings 28 and 29, and within the apertures keepers 32 and 33 are disposed. Secured to each of the reciprocating bolts 26 and 27 are laterally extending pins 34.

A triangular plate 35 is provided for each bolt and which has adjacent one corner a slot 36 within which pin 34 is disposed. Plate 35 is fixedly secured to pin 37 which is pivotally mounted in the bolt casing of the door post and has an aperture 38 whereby the shank of a knob 47 may be inserted in the aperture and the plate 35 rocked, reciprocating the bolt. Secured adjacent each of the other corners of the triangular plates 35 are members 39 and 40 which may be of chains or any other suit-

able means. I prefer, however, to construct members 39 and 40 of relatively rigid rods such as round iron or stiff wire rods. The rods extend downward through the door post to the floor and have secured to them adjacent the floor, flexible portions such as chains indicated by numerals 41 and 42. Pulley blocks 43 and 44 are secured to the floor between the floor and ceiling and are preferably of the type which is provided with grooved wheels and sheaths, thereby preventing the flexible members 41 and 42 from jumping the pulley. Flexible members 41 and 42 are preferably secured to rigid rods 45 and 46 which extend to a second pair of pulleys, which are preferably provided with flexible portions and are similarly connected to the bolt construction in door post 20 and door 14. The preferable construction just described is easy and cheap to manufacture, but any system of linkage cables or flexible members may be used to connect the disks 35.

Referring more particularly to Fig. 1, it will be noted that the door bolt mechanism disposed in door post 21 for bolting door 15 is connected to members 45 and 46 in the same manner as the bolt mechanism is connected for door posts 20 and 22. It is obvious that my door bolt mechanism may be applied to as many doors as desired.

Assuming that the bolts are positioned as shown in Fig. 2, the doors are unlocked and the room is accessible through any one of the doors. A person entering the room may turn the knob at any one of the doors, shoot the bolt to closed position, whereupon the bolt for each door is moved to closed position. The occupant of the room is then safe from intrusion and no one can enter until the bolts have been released. The occupant cannot leave the room unless he moves one of the bolts and this he does by turning the knob in a counter clockwise direction, whereupon all of the bolts are shot to open position, he can then leave the room and lock his door from the inside by the usual lock construction, whereupon the occupants of the adjoining rooms are free to pass into the room, but cannot enter his room by reason of the fact that the door is locked.

What I claim is:

1. A device for operating door bolts, comprising the combination with a plurality of reciprocating door bolts, of pivotally mounted members engaging said bolts, flexible means fixedly secured at correspondingly located points on each pivotally mounted member to rock said members in a clockwise direction, flexible means fixedly secured at correspondingly located points on each pivotally mounted member, to rock said members in a counter clockwise direction, and means secured to each pivotally mounted member for rocking the latter.

2. A door bolt construction comprising the combination with a plurality of reciprocating door bolts provided with laterally extending pins, of pivotally mounted members each provided with a slot in which said pins are disposed, flexible means fixedly secured to correspondingly located points on each pivotally mounted member to rock said members in a clockwise direction, flexible means fixedly secured at correspondingly located points on each pivotally mounted member to rock said members in a counter clockwise direction, and means secured to each pivotally mounted member for rocking the latter.

3. A device for operating door bolts, comprising the combination with a plurality of reciprocating door bolts, of rocking members operatively secured to said bolts, a pivotally mounted sleeve secured to each rocking member, a handle secured to each sleeve, flexible means fixedly secured at correspondingly located points on each rocking member to rock said members in a clockwise direction, flexible means fixedly secured at correspondingly located points on each rocking member to rock said members in a counter-clockwise direction, and means secured to each pivotally mounted member for rocking the latter.

4. A device for operating door bolts, comprising the combination with a plurality of reciprocating door bolts provided with laterally extending pins, of plates provided with a slot in which said pins are disposed, a pivotally mounted sleeve secured to each plate and provided with a bore, a handle provided with a shank mounted in each sleeve, flexible means fixedly secured to correspondingly located points on each plate to rock said plate in a clockwise direction, and flexible means fixedly secured at correspondingly located points on each plate to rock said plate in a counter-clockwise direction.

In witness that I claim the foregoing I have hereunto subscribed my name this 7th day of April, 1915.

EMIL F. FLORCKEN.