

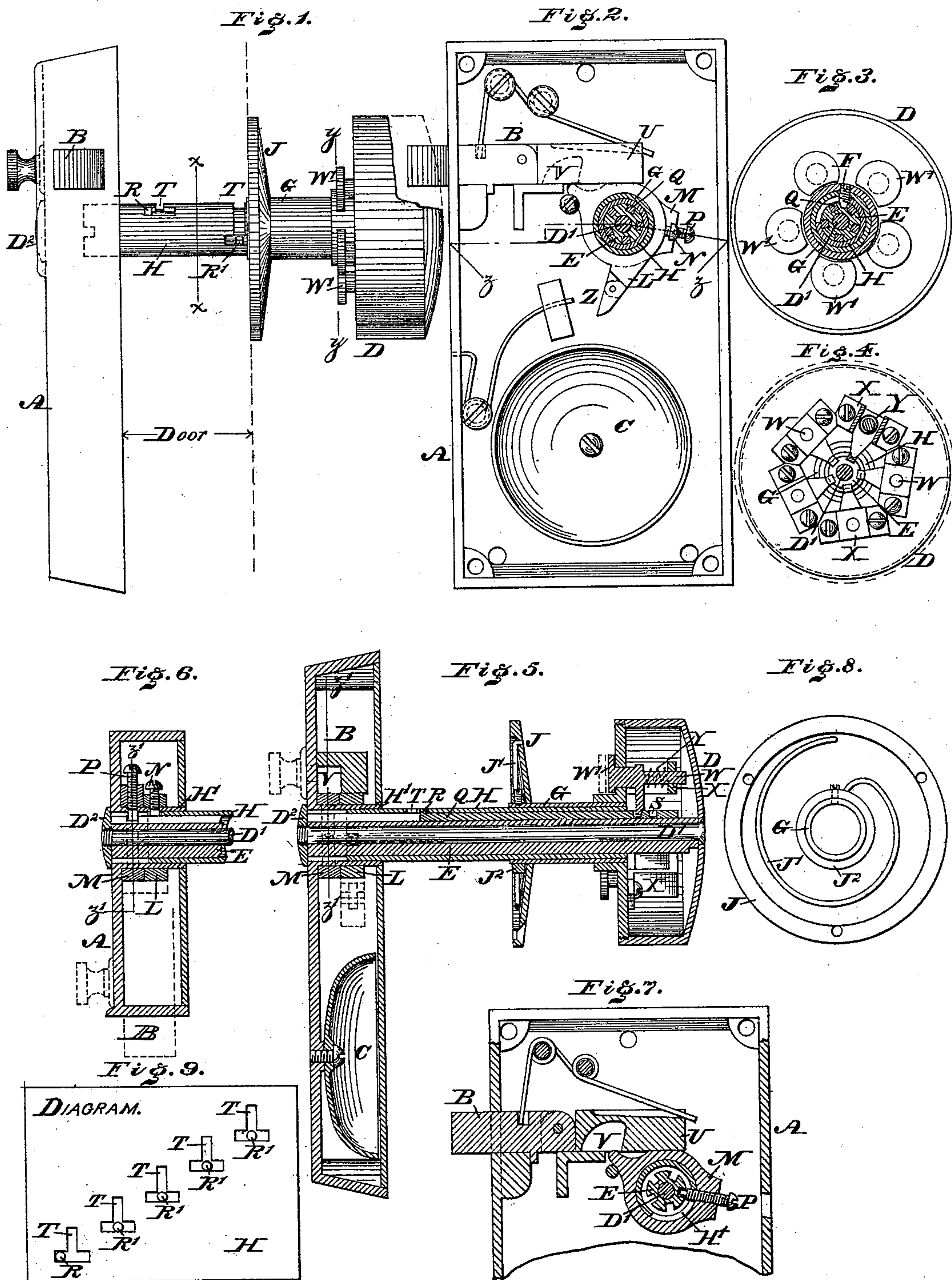
(Model.)

T. MABBETT, Jr.

ALARM LOCK.

No. 338,851.

Patented Mar. 30, 1886.



WITNESSES:

So. P. Grant,
H. F. Fischer

INVENTOR:
Truman Mabbett Jr.
BY John A. Diederich
ATTORNEY.

UNITED STATES PATENT OFFICE.

TRUMAN MABBETT, JR., OF BEIDEMAN STATION, NEW JERSEY.

ALARM-LOCK.

SPECIFICATION forming part of Letters Patent No. 338,851, dated March 30, 1886.

Application filed May 2, 1885. Serial No. 164,184. (Model.)

To all whom it may concern:

Be it known that I, TRUMAN MABBETT, Jr., a citizen of the United States, residing at Beideman Station, in the county of Camden and State of New Jersey, have invented a new and useful Improvement in Combined Bolts, Locks, and Alarms, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a side elevation of a combined bolt, lock, and alarm embodying my invention. Fig. 2 represents a section thereof in line *xx*, Fig. 1. Fig. 3 represents a section thereof in line *yy*, Fig. 1. Fig. 4 represents a view of the interior of the knob thereof. Fig. 5 represents a longitudinal section thereof. Fig. 6 represents a section thereof in line *zz*, Fig. 2. Fig. 7 represents a section in line *z'z'*, Figs. 5 and 6. Fig. 8 represents a view of the inner face of a rose and connected spring. Fig. 9 represents a diagram, to be hereinafter referred to.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a door or other bolt, which is controlled by bits operated from the knob in such manner that when the proper bit is actuated the bolt may be withdrawn from the keeper, the other bits failing to effect such action, but causing an alarm, so that a reliable lock is provided for the bolt, the nature of the same obviating the employment of a key.

Referring to the drawings, A represents a casing having a sliding bolt, B, and containing a bell or an alarm, C, said casing being properly secured to a door or other suitable place of service.

D represents a knob formed of two sections, the inner of which has a collar; and E represents a spindle which is connected therewith by means of a screw, F, which is passed through the collar of said knob and an exterior sleeve, G, an inner sleeve, H, and said spindle, it being noticed that the sleeve H surrounds the spindle and said sleeve G surrounds the said sleeve H, the inner end of the sleeve G being within a rose, J, and that of the sleeve H within a hollow hub or collar, H', the latter being connected to and within the casing A, and supporting two dogs, L M, the dog L being attached to said collar H' by a screw, N,

and the dog M being secured to the spindle E by means of a screw, P, it being noticed that the point of the screw N passes through a slot in the collar H' and enters an opening in the sleeve H, and the point of the screw P enters a groove in the spindle E, said spindle being formed with a series of longitudinally-extending grooves, in which are fitted slides Q, the inner ends of which are formed with bits R R', and the outer ends whereof (which are within the knob D) are each formed with two grooves or notches, S. The sleeve H has T-shaped slots T, which receive the bits R R' of the slides Q. The bolt B has its inner or heel portion formed of a hinged piece, U, and the two dogs L M are in contact with said heel, the under side of said heel having a recess, V, to receive the nose of the dog M, whereby the bolt may be drawn inward or withdrawn from its keeper, the under side of said bolt having also the nose of the dog L bearing against it, whereby the operation of said dog will cause the elevation of the heel of the bolt, and thus the dog M is rendered incapable of withdrawing the bolt.

Within the knob D are arms W, of angular form, the same engaging with the slides Q in the grooves S thereof, and having their outer limbs projected through the inner wall of the knob D, and provided on the outside thereof with heads or buttons, W', whereby said arms may be operated or pushed in and the slides Q accordingly carried forward. The arms W are fitted to guides X within the knob D, and forced outwardly to their normal position by means of springs Y, suitably applied, said springs also serving to restore the slides Q, and consequently the bits R R', to their normal positions. The dog L has a hinged foot, Z, which is adapted to strike the hammer of the bell C, this being effected whenever the said dog is rotated.

Within the rose J is a coiled spring, J', one end of which is secured to said rose, and the other end connected with a collar, J², fixed to the sleeve G, whereby when the knob is turned said spring is suitably contracted, the effect of which is to cause the automatic return of the knob when relieved of the hand, said rose remaining stationary and concealing the spring.

Fig. 9 is a development of a portion of

sleeve H, showing the T-shaped slots and the positions of the bits R R' therein. It will be seen that the bit R occupies one end of the head of a slot, T, while the bits R' occupy the centers of the heads of their respective slots. Consequently, when the arm W, to which the slide Q of said bit R is attached, is properly pushed in the bit R is coincident with the center of the leg of the slot. Consequently, if the knob is turned, the bit R moves in said leg, the sleeve H offers no resistance to the rotation of the spindle with the knob, and said spindle is accordingly rotated, and, as it carries the dog M with it, said dog, engaging with the bolt B, withdraws the same from its keeper, and the door or other place to which the device is applied may be readily opened, as is apparent. This is the operation when the proper party wishes the door, &c., to be opened. In the absence of the knowledge of the proper arm W to be pushed in, any of the other buttons or heads pressed in will move the bits R' to the end of the heads of the slots T. Consequently, when the knob is rotated said bits press against the walls of the heads of the slots, causing the rotation of the sleeve H, so that the latter rotates with the spindle, and the nose of the dog L raises the heel of the bolt, whereby the dog M is prevented from engaging with said heel. Consequently, the bolt remains at a state of rest or within its keeper. Simultaneously therewith the foot Z of the dog L engages with the bell-hammer, thus striking the bell and sounding an alarm, which indicates the efforts of improper parties to open the door, &c. It is evident that by loosening the screw F the knob J may be rotated in order to disengage the arms from the slides when different combinations of the latter may be made, to cause either of the bits R R' or a number thereof to properly move in the slots of the sleeve H and effect the withdrawal of the bolt. The remaining bits when moved bear against the walls of the slots in the sleeve H, and cause the rotation of said sleeve with the spindle, and the consequent ringing of the bell without the withdrawal of the bolt, similar to that hereinbefore set forth. The outer wall of the knob is screwed to the inner face-plate thereof and further held in position by the bolt D', which is passed entirely through the spindle, and has its threaded end secured by a nut, D², accessible at the face-plate of the casing A, which, as is evident, is on the inner side of the door or other place to which the device is applied; hence the unscrewing of the outer wall or shell of the knob and consequent exposure of what may be called the "bolt-work" within the knob is prevented, it being apparent that the knowledge of the position of the limbs of the arms W in either of the grooves S of each slide is fatal to the security of the bolt B. When the knob is rotated, without pressing either of the buttons the bell will be struck or an alarm made, thus announcing such action.

The bolt may be opened from the inside of

an apartment, and is self-closing, as usual in door and other bolts.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A bolt in combination with a dog controlling said bolt, a sleeve within a narrow hub or collar, the dog being secured to said collar, bits attached to slotted slides and moving in slots of the said sleeve and operating the same, a spindle having grooves for said slotted slides, and a knob connected to said spindle, substantially as described.

2. A bolt in combination with a knob having a spindle and provided with arms connected with slides fitted to said spindle, the said slides having bits adapted to play in slots in a sleeve on said spindle, a sleeve and a hollow hub, each carrying a dog adapted to engage with the bolt, substantially as and for the purpose set forth.

3. A bolt in combination with a knob attached to a spindle, and provided with angular arms having heads on the outside of said knobs, slides working in grooves in said spindle and having recesses in one end and bits on the other end thereof, a slotted sleeve, and a dog, substantially as described.

4. A bolt, a knob, and a spindle in combination with a slotted sleeve surrounding said spindle, means, substantially as described, connecting said knobs and slides, and slides fitted to said spindle, having bits which play in the slots of said sleeve, substantially as and for the purpose set forth.

5. A bolt provided with a swinging heel and dogs engaging with said heel, one withdrawing the bolt from its keeper and the other raising said heel and preventing the withdrawal of the bolt, substantially as described.

6. A bolt and a knob in combination with a spindle, a slotted sleeve surrounding said spindle, and mechanism, substantially as described, whereby said sleeve and spindle may be rotated together or singly, as stated.

7. A bolt in combination with two dogs, a spindle, and a sleeve, one of said dogs being operated by the spindle and the other by the sleeve, both dogs engaging with the bolt, one effecting the withdrawal of the bolt and the other operating to prevent the same, substantially as described.

8. A bolt in combination with a knob having within the same angular arms operated from without the said knob, said arms having guides and springs, substantially as described, a spindle connected to said knob, bitted and recessed slides engaged by said angular arms, a slotted sleeve, and dogs, substantially as and for the purpose set forth.

9. In a door or other bolt, a case containing the bolt and an alarm, in combination with two dogs, both engaging with said bolt, one effecting the withdrawal of the bolt and the other preventing the same and causing the sounding of said alarm, substantially as stated.

10. A rotary knob provided with a return-
ing-spring, which is connected with the spin-
dle of the knob and with a rose within which
it is concealed, substantially as described.

5 11. A hollow knob formed in two parts or
sections, one of which has a collar, in combi-
nation with a spindle, and a bolt passing

through both sections and the spindle, sub-
stantially as described.

TRUMAN MABBETT, JR.

Witnesses:

JOHN A. WIEDERSHEIM,
A. P. GRANT.