W. H. GOEDEN.

DOOR LOCK.

APPLICATION FILED NOV. 16, 1912

1,060,448.

Patented Apr. 29, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

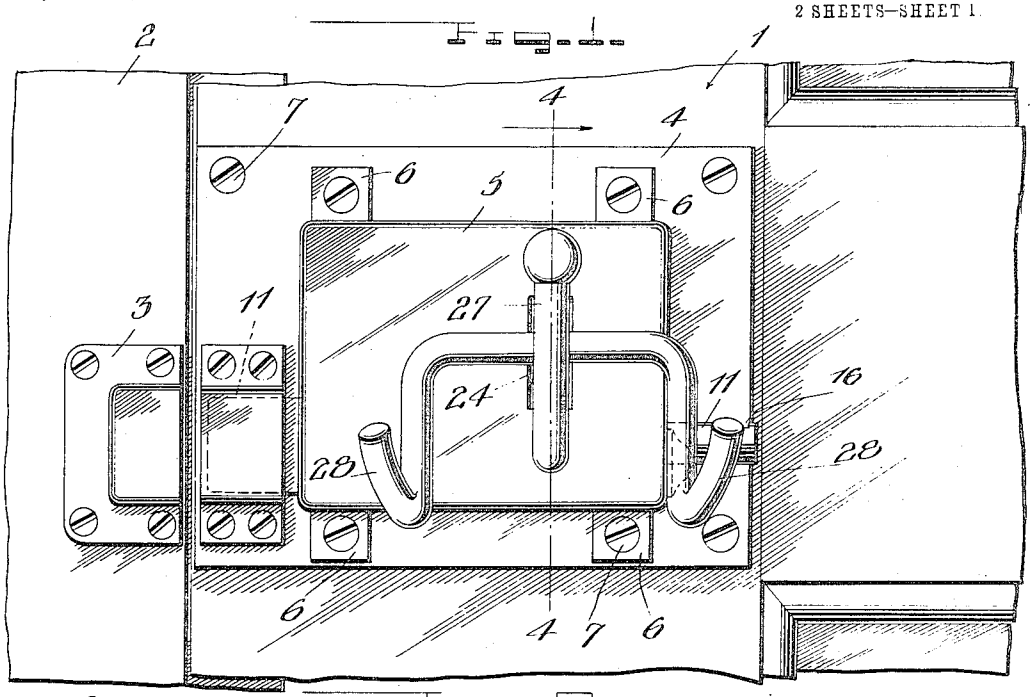
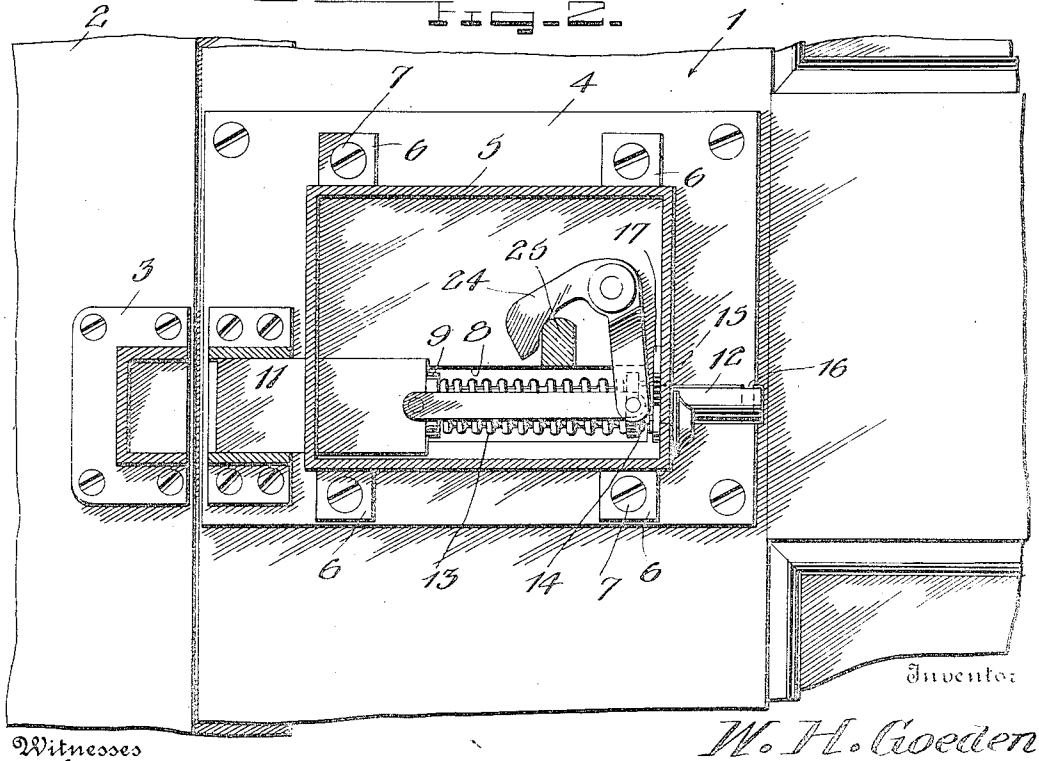


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

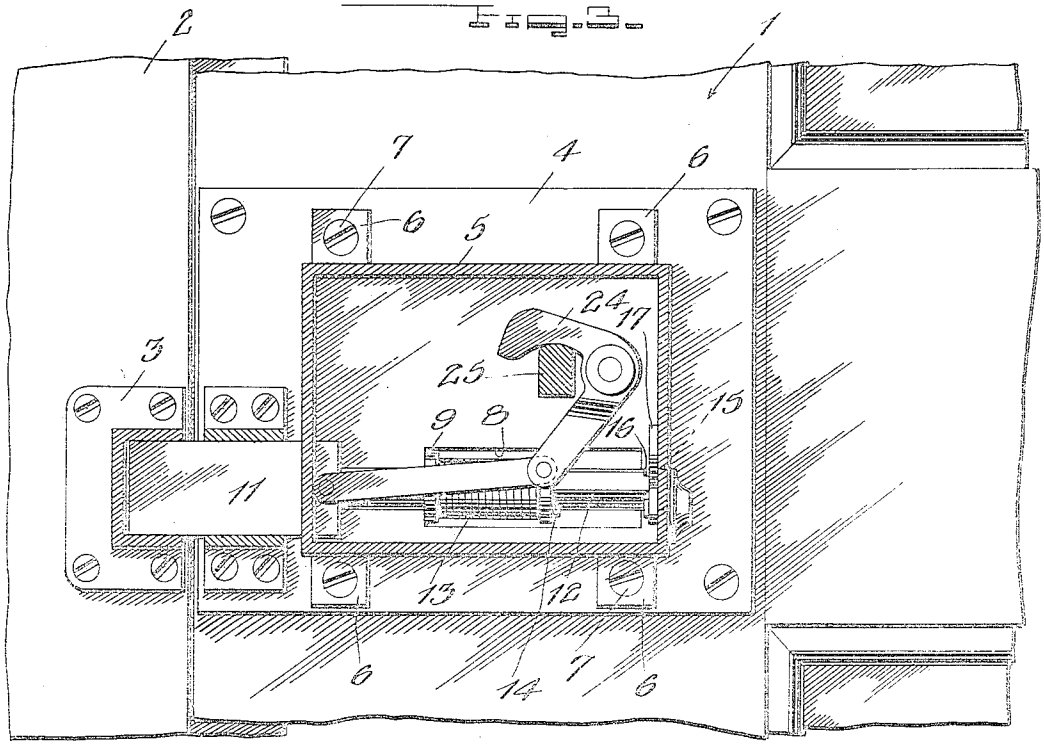
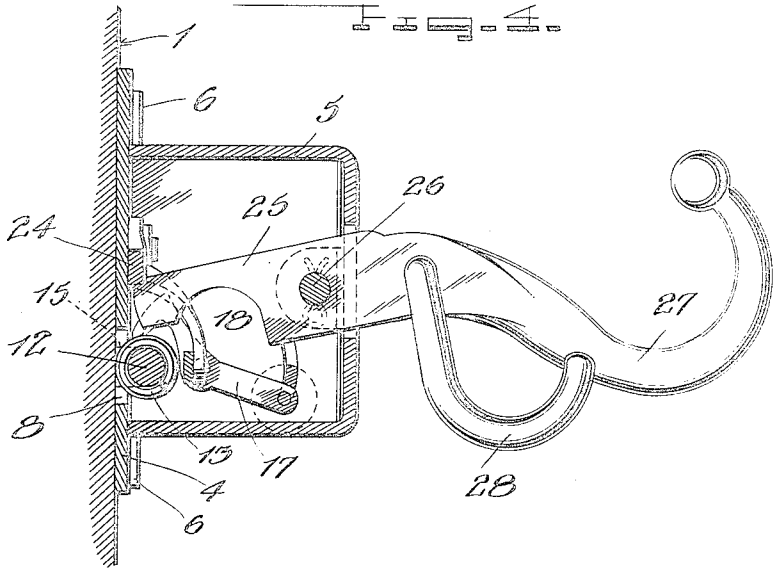


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM H. GOEDEN, OF NEBRASKA CITY, NEBRASKA.

DOOR-LOCK.

1,060,448. Specification of Letters Patent. Patented Apr. 29, 1913.

Application filed November 16, 1912. Serial No. 731,743.

To all whom it may concern:

Be it known that I, WILLIAM H. GOEDEN, a citizen of the United States, residing at Nebraska City, in the county of Otoe and State of Nebraska, have invented new and useful Improvements in Door-Locks, of which the following is a specification.

This invention is an improved automatic door lock adapted to be locked or unlocked from the inner side of the door on which it is placed and without the use of a key and especially adapted to be locked by the hanging of one or more articles of clothing on a hook lever which forms an element of the bolt operating mechanism, the object of the invention being to provide an improved lock of this character which can only be operated from the inside of the door on which it is placed, which dispenses with the use of a key, which cannot be opened by a burglar on the outside of the door and which is adapted to be automatically set in locking position by the hanging of one or more articles of clothing or other objects on the hook lever which forms an element of its bolt operating mechanism.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is an elevation of a lock constructed in accordance with my invention, showing a portion of a door on which the lock is mounted and also showing a portion of the door casing. Fig. 2 is a vertical longitudinal sectional view of the same with the parts in unlocked position. Fig. 3 is a similar view, showing the parts in locked position. Fig. 4 is a vertical transverse sectional view on the plane indicated by the line 4—4 of Fig. 1.

For the purposes of this specification, a portion of a door is indicated at 1 and a door casing at 2. The casing is shown as provided at one side with a suitable keeper 3. My improved lock has a base plate 4 secured on the inner side of the door by means of screws or other suitable devices and a casing 5, the bottom of which is formed by a base plate, the casing being here shown as provided with lugs 6 which bear on the base plate and are secured thereto by means of screws 7 which pass through openings in the base plate and enter the door. The base plate has a longitudinal slot 8 at the inner end of which is a guide 9. A guide 10 is at the outer end of the base plate. A longitudinally movable bolt 11 is provided which operates in the guide, is adapted to engage the keeper when the door is closed and is provided with a rod 12 which projects from its inner end, the said rod operating in an opening in the guide 9. A coiled spring 13 to normally hold the bolt in unlocked position is arranged on the bolt rod 12 and in the slot 8, one end of the said spring bearing against the guide 9 and the other end thereof bearing against a stop pin 14 with which the bolt rod is provided. At the outer end of the casing is an opening 15 through which the outer end of the bolt rod extends. Said bolt rod has a notch 16 near its outer end and on its inner side and a dog 17 is pivotally mounted in the casing as at 18 and is adapted to be moved into engagement with the said notch by a button 17^a, the shank of which works in a curved slot 17^b in one end of the casing. A bell crank 24 is pivotally mounted on the base plate, and has one arm connected by a link 23 to the bolt. The other arm 24^a of the bell crank is engaged by the inner end of a lever 25 which lever is pivotally mounted in the casing as at 26 and the outer end of which projects outwardly from the casing and is formed into a clothes hook 27. Supplemental hooks 28 are also connected to and carried by the lever 25.

Normally the spring 13 acts to hold the bolt 11 in unlocked position out of engagement with the keeper and to hold the bell crank, which is connected to the bolt in such position that the arm 24^a thereof is depressed so that said arm by depressing the inner end of the lever 25 elevates the hooked end 27 thereof. When an article of clothing or other article is placed on the hook, its weight causes the outer end of the hook lever to descend and the inner end of said lever to rise and the ascending movement of the inner end of the lever by the engagement of said lever with the arm 24 of the bell crank partly turns the bell crank so as to cause the link 23 to move the bolt 11 to locked position in engagement with the keeper against the tension of the spring 13. Hence, the door continues to be locked from the inside as long as the hook is in use but when the article or articles is removed from the hook, the spring thereupon releases the

bolt from the keeper and causes the hooked end of the lever to be elevated. If it is desired to lock the door without the use of the hook lever, it may be accomplished by pressing manually on the outer end of the bolt rod so as to shoot the bolt against the tension of the spring and the bolt can then be secured in locked position by engaging the dog with the notch thereof as hereinbefore described. Hence, the lock may be operated either automatically by adding clothing on the hook lever or manually by means of the bolt rod.

The keeper may be of any suitable construction and the form, proportion and construction of the several parts of my improved lock may be modified without departing from the spirit of my invention and within the scope of the appended claims.

I claim:—

1. In a lock of the class described, a casing, a bolt mounted for longitudinal movement in the casing, a spring to normally hold the bolt in retracted position, a bell crank pivotally mounted in the casing, a link connecting one arm of the bell crank to the bolt, and a lever pivotally mounted in the casing, extending outwardly therefrom and also having an inwardly extending arm adapted to engage the other arm of the bell crank, the said lever having hooks at its outer end.

2. In a lock of the class described, a casing; a bolt mounted for longitudinal movement in the casing and having a rod extending through one side thereof and provided with a notch, a spring to normally hold the bolt in retracted position, a bell crank pivotally mounted in the casing, a link connecting one arm of the bell crank to the bolt, a lever also pivotally mounted in the casing having an outwardly extending hooked end and also having an inwardly extending arm, the latter being adapted to engage the other arm of the bell crank and to coact with the bell crank to move the bolt to closed position against the tension of the spring when the outer end of the lever is depressed, and a dog mounted in the casing and adapted to be moved into engagement with the notch of the bolt rod to lock the bolt in such locking position.

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

WILLIAM H. GOEDEN.

Witnesses:

CHAS. C. MELANDER,

LOUIS MELANDER.