

B. W. WOLFE.
LOCK.

APPLICATION FILED MAY 9, 1910.

1,006,816.

Patented Oct. 24, 1911.

2 SHEETS-SHEET 1.

Fig. 1

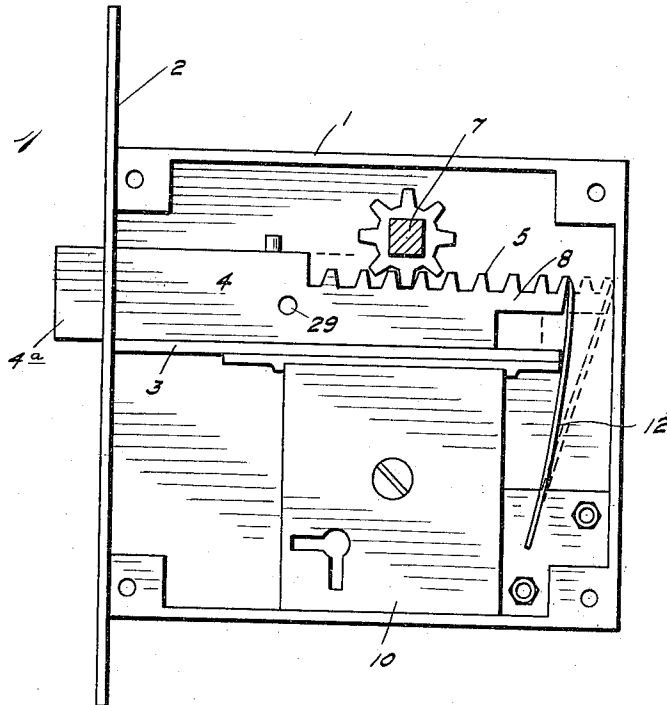
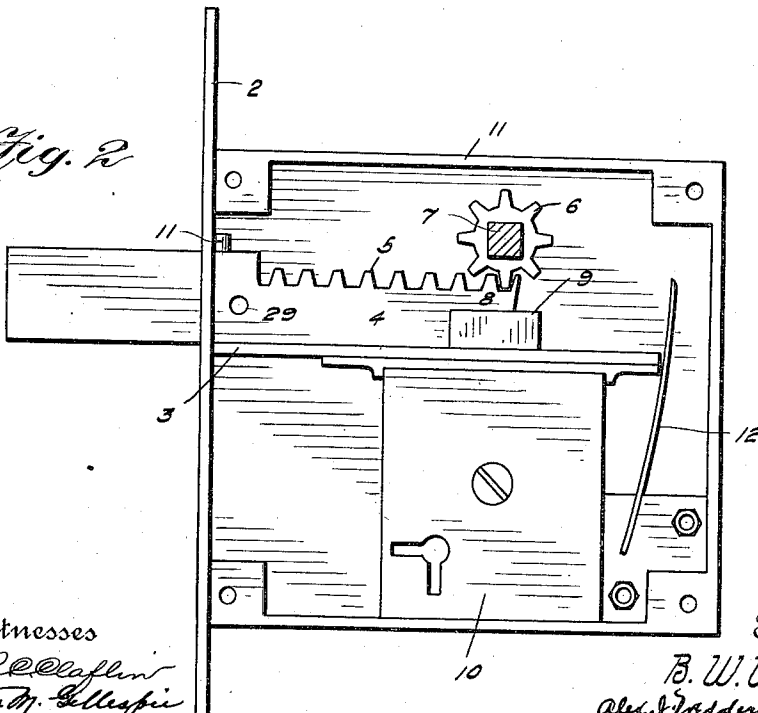


Fig. 2



Witnesses
R. C. Clafflin
Edw. M. Gillespie

Inventor:
B. W. Wolfe
Alex. J. Braddish Jr.
Attorney

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2 SHEETS—SHEET 2.

Fig. 3

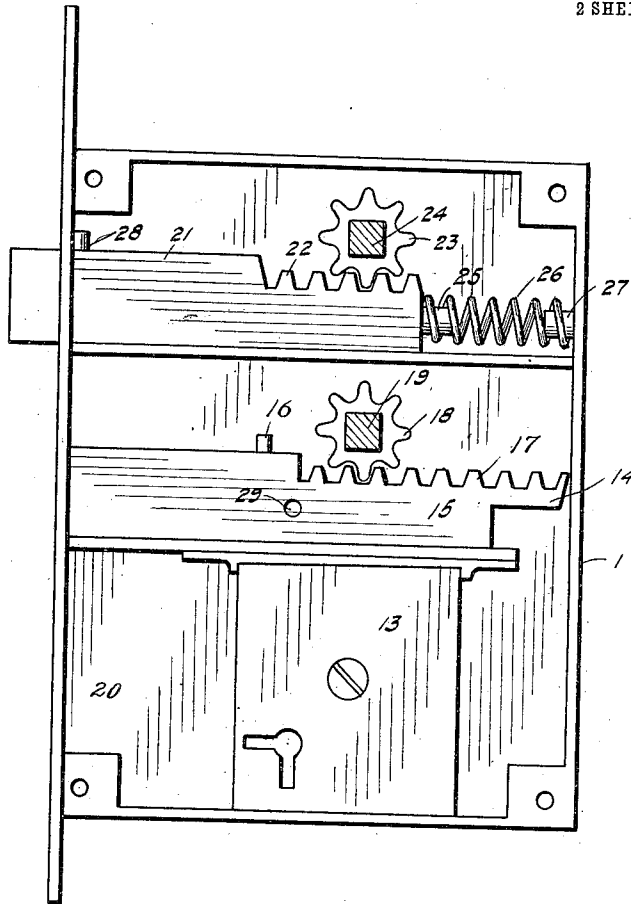


Fig. 4

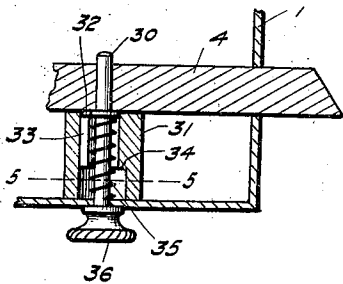
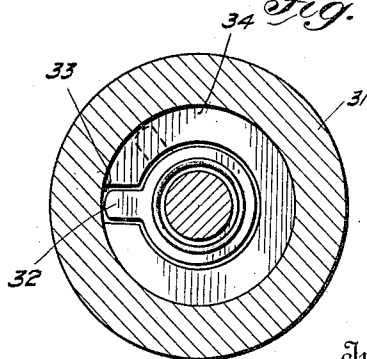


Fig. 5



Witnesses

R. O. Clafflin
John M. Gillespie

Inventor

B. W. Wolfe
at & J. W. Mendenhall, Jr.

Attorney

UNITED STATES PATENT OFFICE.

BERT WASHINGTON WOLFE, OF BROOKLYN, NEW YORK.

LOCK.

1,006,816.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BERT WASHINGTON WOLFE, citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Locks, of which the following is a specification.

This invention relates to improvements in locks and the leading object in view is the construction of a lock having a movable rack bar engaged by a gear, which bar may be used for ordinary latching purposes or for locking purposes.

Another object of the invention is the construction of a lock having a movable bar adapted to be used for latching or locking a door and a lock independently operative for holding the bar against movement.

With the above and other objects in view the invention comprises certain combinations, constructions and arrangements of parts, clearly described in the following specification, and clearly illustrated in the accompanying drawings, in which,

Figure 1 is a side elevation of a lock with one of the side plates thereof removed to expose the operating parts, Fig. 2 is a side elevation showing the movable bar in a locking position, Fig. 3 is a side elevation, with one of the face plates removed to expose the operating parts, of a modified form of the invention, Fig. 4 is a detail sectional view of a locking pin, and Fig. 5 is a detail cross sectional view taken on line 5—5 of Fig. 4.

Referring to the accompanying drawings illustrating the preferred embodiment of the invention 1 denotes the casing in which the operating parts of the improved lock and latch are arranged, and which is provided with the usual end plate 2 for the locking and latch member or bar to slide on. The casing 1 is formed with an integral shelf or guide 3, on which the locking and latching bar 4 moves. This bar is provided with rack teeth 5, which are engaged by the gear 6, which gear is mounted on the shaft 7, to which one or more door knobs are attached. The inner end of the bar 4 is extended to form an abutment 8, which is engaged by the lock bar 9, movable in casing 10, in which suitable operating mechanism is arranged for throwing the bar 9 into and out of locking position with the bar 4. The bar 4 carries a stop 11 to limit its outward movement. A flat spring 12 is arranged in

the casing 1 to bear against the abutment 8 of the bar 4, whereby the terminal 4^a of said bar, which terminal is beveled, will be held normally outward of the casing to perform the usual latching functions. The bar 4 is considerably longer than the usual bars used for locking or latching so that it will penetrate the door jamb a sufficient distance to prevent the same being displaced from its locking position by means of a jimmy or other tool, such as burglars usually employ. When the locking bar 9 is in a non-locking position the bar 4 can be used as an ordinary latching bar and when the same is in a locking position it will be impossible to move this bar, as the bar 9 by engaging the shoulder of the abutment 8 will effectively prevent the bar 4 from being moved.

The improved lock requires but one opening in the door jamb, instead of two or more.

In Figs. 3, 4 and 5 another form of the invention is illustrated, consisting of a casing 1, in which the lock casing 13 is arranged. The casing 2 is provided with a suitable lock bar which engages the abutment 14 of the lock bar 15. The bar 15 is provided with a stop pin 16 for limiting its outward movement and is formed with rack teeth 17 engaged by the gear 18, which gear is mounted on the shaft 19. When the bar 15 is moved outwardly by the gear 18 the lock bar in the casing 13 can be moved into a locking position with relation to said bar. Above the bar 15 the guide 20 is located. On the guide 20 a latch bar 21 moves. The bar 21 is provided with rack teeth 22 which are engaged by the gear 23 on the shaft 24. The inner end of the bar 21 is provided with a pin 25 around which a coil spring 26 is arranged, the other end of which presses against the end wall of the casing 1 and is disposed around the pin 27 on said end wall. The bar 21 is provided with a stop pin 28 for limiting its outward movement.

The bar 4 of the construction shown in Figs. 1 and 2 and the bar 15 shown in Fig. 3 is each provided with an opening 29 to receive a locking pin 30. The pin 30 works in a small casing 31 and is provided with a lateral offset 32 which is adapted to move in the slot 33 of the shoulder 34, which is formed in the casing 31. A coil spring 35 is arranged on the pin 30 to hold the same normally outward. When the pin 30 is inserted in one of the openings 29 the lock-

ing bar cannot be opened. In this way the locking bars 4 and 15 can be held against movement, thus preventing the picking of the locks. The pin 30 is provided with a small knob 36.

Having described my invention I claim:—

1. A lock consisting of a casing, a shelf therein, a lock bar slidable thereon, a spring adapted to press said bar outward a limited distance, a recess on the extreme inner end of said bar and an additional lock bar adapted to engage said recess, said shelf adapted to limit the movement of said spring.

2. A lock consisting of a casing, a shelf therein, a lock bar slidable thereon, a spring adapted to press said bar outward a limited distance, a recess on the extreme inner end of said bar and an additional lock bar adapted to engage said recess, said shelf adapted to limit the movement of said spring, a rack formed on one edge of said lock bar, a spindle operating in said casing, a pinion on said spindle adapted to engage said rack and throw said lock bar outwardly of said casing about one half its length.

3. A lock consisting of a casing, a shelf therein, a lock bar slidable thereon, a spring adapted to press said bar outward a limited distance, a recess on the extreme inner end of said bar and an additional lock bar adapted to engage said recess, said shelf adapted to limit the movement of said

spring, a rack formed on one edge of said lock bar, a spindle operating in said casing, a pinion on said spindle adapted to engage said rack and throw said lock bar outwardly of said casing about one half its length, means adapted to fixedly engage said lock bar when projected as far as possible from said casing.

4. A lock consisting of a casing, a shelf therein, a lock bar slidable thereon, a spring adapted to press said bar outward a limited distance, a recess on the extreme inner end of said bar and an additional lock bar adapted to engage said recess, said shelf adapted to limit the movement of said spring, a rack formed on one edge of said lock bar, a spindle operating in said casing, a pinion on said spindle adapted to engage said rack and throw said lock bar outwardly of said casing about one half its length, means adapted to fixedly engage said lock bar when projected as far as possible from said casing, a spring pressed racked latch bar within said casing, a pinion mounted on an additional spindle adapted to operate said latch bar.

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

BERT WASHINGTON WOLFE.

Witnesses:

CLINTON L. WOLFE,
GEO. J. BRIGHAM.