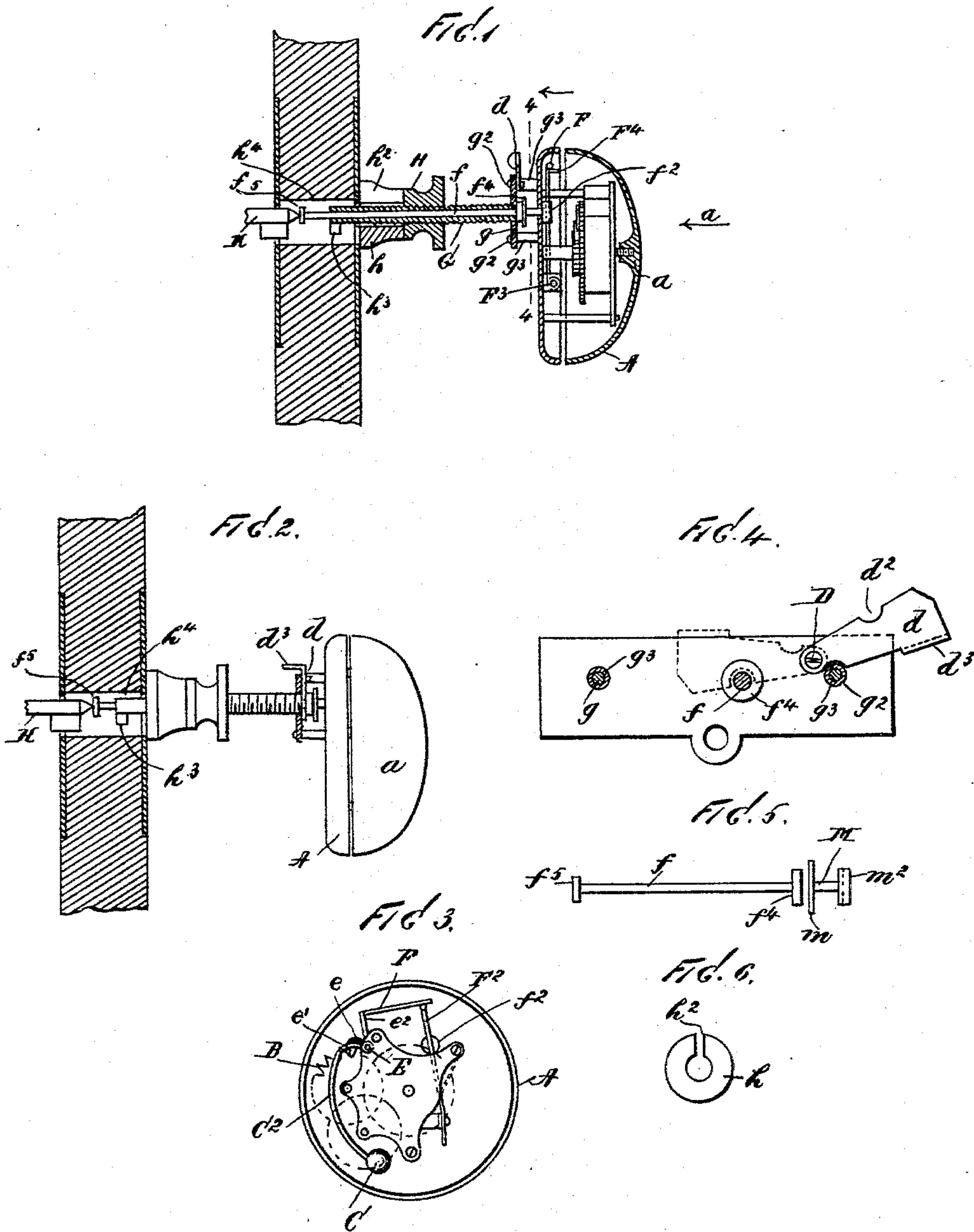


(No Model.)

T. J. SUTTON.
BURGLAR ALARM.

No. 583,952.

Patented June 8, 1897.



WITNESSES

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BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 583,952, dated June 8, 1897.

Application filed August 28, 1896. Serial No. 604,217. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. SUTTON, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Burglar-Alarms, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which
10 similar letters of reference indicate corresponding parts wherever found throughout the several views.

This invention relates to burglar-alarm bells; and the object thereof is to provide an improvement in this class of devices whereby an alarm-bell can be applied to an ordinary door or to the keyhole thereof in such manner that the alarm will be operated by the insertion of a key or other instrument in an effort to unlock the door.

The invention is an improvement on the construction described and claimed in Letters Patent of the United States granted to me May 5, 1896, Serial No. 559,631; and the object of the invention is to provide means whereby the alarm when once started will be continuously operated until run down or until stopped from the inner side of the door, whereas with the device described and
30 claimed in the patent referred to the alarm was only temporary, said alarm ceasing to operate when the key or other instrument was drawn from the keyhole.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a vertical section of a portion of a door and the keyhole thereof, showing also my improved alarm connected therewith, the casing of the alarm-bell, which forms a part thereof, and other parts of the device being also shown in section; Fig. 2, a sectional side view thereof with a part of the door in section; Fig. 3, a plan view of the alarm-bell which I employ, the top or cover thereof being removed, said view being taken in the direction of the arrow *a*, shown in Fig. 1; Fig. 4, a section on the line 4-4 of Fig. 1; and Figs. 5 and 6 are side and end views, respectively,
50 of details of the construction.

In the practice of my invention I employ

an ordinary spring-operated alarm-bell A, having a spring-operated ratchet-wheel B, which is provided with a knocker C, which is mounted on the outer end of the curved arm or lever C², which is secured to a shaft E, to which is secured a verge *e* of the usual form and construction and provided with a prong *e'*, adapted to operate in connection with the ratchet-wheel B and an end or projection *e*², which is provided with an arm F, the outer end of which comes in contact with the end of a spring-lever F², one end of which is secured to the back of the alarm-bell, as shown at F³, and the free end of said lever is provided with a projecting arm F⁴, against which the arm F of the verge *e* rests when in the normal position, as shown in Figs. 1 and 3. I also provide a push-rod *f*, which is provided with a head *f*², which is provided with a transverse slot in which the spring-lever F² rests, and the push-rod *f* is supported in a tubular rod or casing G, which passes through a plate *g*, which is connected with the back of the alarm by means of pins or bolts *g*², which pass through tubular heads or sleeves *g*³.

The push-rod *f* is provided inside of the plate *g* with a collar *f*⁴, and pivotally mounted at D, above the upper rod *g*², is a latch-plate *d*, having in its upper side a circular notch or recess *d*² and an outwardly or backwardly directed lug or projection *d*³, this construction being best shown in Fig. 4, and the latch *d* when turned backwardly rests on the sleeve *g*³ on the rod *g*², as shown in full lines in said Fig. 4, and said latch is adapted to be turned forward or across the push-rod *f*, as shown in dotted lines in said figure.

The tubular rod or casing G is screw-threaded, and mounted thereon is an adjustable head or bearing H, and I also provide a slotted sleeve *h*, which is provided in one side with a slot *h*², and said sleeve is also adapted to be mounted on the tubular casing G, and the slot *h*² is designed to admit of the passage of a lug or projection *h*³, formed on the outer end of the tubular casing G, and said end of said tubular casing is adapted to be inserted into an ordinary keyhole *h*⁴, and the end of the push-rod *f* projects from the ends of the tubular casing or rod G and is provided with a head *f*⁵.

The alarm-bell is adapted to be wound by a gong or bell-shaped casing *a*, which is mounted on the shaft of said alarm-bell, as shown in Fig. 1, and the operation of this construction will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof.

It will be understood that my improved alarm is adapted to be connected with the lock of a door from the inner side thereof and to be operated by a key inserted from the outer side of the door, and in connecting the alarm with the door the end of the tubular casing *G* is inserted into the keyhole and turned so that the shoulder or projection *h*³ on the end thereof will extend transversely of said keyhole and hold the tubular casing *G* therein, and the head or bearing *H* is then screwed against the outer side of the lock or against the sleeve *h*, as shown in Fig. 1, so as to firmly hold the device in connection with the lock. When thus secured in position, if a key *K* is inserted into the lock on the opposite side, as shown in Figs. 1 and 2, the push-rod *f* will be operated thereby and forced inwardly, and the head *f*² thereof will operate in connection with the spring-lever *F*² and force the same inwardly and thus release the arm *F* of the verge *e*, and this operation also releases the end or projection *e'* of said verge, and the ratchet-wheel *E* will be revolved by the spring of the alarm-bell, and the revolution of this wheel will operate, in connection with said verge, to operate the lever *C*² and the head *C* thereof and sound the alarm.

It will be apparent that as soon as the key *K* is withdrawn the spring-lever *F*² will force the push-rod *f* outwardly, and said lever will return to its normal position, and the alarm will cease to operate, and to avoid this result and to keep the alarm in operation I provide a catch *d*, and this catch in the normal position thereof, when the alarm is connected with the door, is turned forward, as shown in dotted lines in Fig. 4, and when the push-rod *f* is forced inwardly by the key *K* said latch drops down between the collar *f*⁴ on said push-rod, and the plate *g* prevents the spring-lever *F*² from forcing said push-rod outwardly, and the alarm will continue to sound until the spring by which it is operated is run down.

In Fig. 5 I have shown the push-rod *f* as independent or formed separately from the device by which the spring-lever *F*² is operated, and this device consists of a short push-pin *M*, provided at its outer end with a disk or plate *m*, against which the collar or head *f*⁴ at the inner end of the push-rod *f* is adapted to press, and at its inner end with a head *m*², which is provided with a transverse slot, the same as the head *f*² of the push-rod *f*, when constructed as shown in Figs. 1 and 3. The operation of this form of construction will be the same as that hereinbefore described, the catch *d*, when dropped in position, operating

to prevent the spring-lever *F*² from forcing the push-pin *M* outwardly, and thus keep the alarm in operation until the mainspring thereof is run down.

My improved alarm apparatus is simple in construction and operation and well adapted to accomplish the result for which it is intended, while being also comparatively inexpensive, and, as will be understood, it may be applied to almost any if not every form of door-lock now in use, and it is evident that changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages.

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

1. The combination with an alarm-bell, which is adapted to be operated by a push-rod, of a tubular casing secured thereto, in which said push-rod is mounted, the end of said tubular casing being adapted to be inserted into the keyhole of a door, and said push-rod being adapted to be operated by a key inserted at the opposite side of the door, and to be forced inwardly, so as to operate the alarm-bell, and to be forced outwardly, by a spring-lever connected with the casing of the alarm-bell, when said key is removed, and a catch pivotally supported and adapted to prevent the push-rod from being forced outwardly when said key is removed, whereby the alarm will be continuously sounded, substantially as shown and described.

2. The combination with an alarm-bell, which is adapted to be operated by a push-rod, of a tubular casing secured thereto, in which said push-rod is mounted, the end of said tubular casing being adapted to be inserted into the keyhole of a door, said push-rod being adapted to operate in connection with a pin, which is mounted in the back of the alarm-casing, and which is held in the projected position by a spring-lever which is in operative connection with the alarm mechanism, said push-pin being provided at its outer end with a head, against which the inner end of the push-rod is forced when the key is inserted, whereby the push-pin is forced inwardly, and a pivoted catch which is adapted to rest upon the inner end of the push-rod or the head thereof, and to hold the push-pin in its innermost position, when said key is withdrawn, substantially as shown and described.

3. The combination with an alarm-bell, which is adapted to be operated by a push-rod, of a tubular casing secured thereto, in which said push-rod is mounted, the outer end of said tubular casing being adapted to be inserted into the keyhole of a door, of a lever which is in operative connection with the alarm, and with said push-rod, and adapted to force said rod outwardly, when the key is removed, and a pivoted catch which holds the

alarm mechanism in operation, after said key has been removed, substantially as shown and described.

4. The combination with an alarm-bell, which is adapted to be operated by a push-rod, of a tubular casing secured thereto in which said push-rod is mounted, the end of the tubular casing being adapted to be inserted into the keyhole of a door, and said push-rod being adapted to be operated by a key inserted in the opposite side of a door and to be forced inwardly so as to operate an alarm-bell, which is mounted upon the shaft carrying a spring-drum and which forms a part of said casing, said push-rod being forced outwardly by a

spring-lever connected with the casing of the alarm-bell when said key is removed and a catch pivotally supported to prevent the push-rod from being forced outwardly when said key is removed to cause the continuous alarm substantially as described. 20

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 25th day of August, 1896.

THOMAS J. SUTTON.

Witnesses:

C. GERST,

A. C. McLOUGHLIN.