Dec. 4, 1923. 1,476,340

W. T. KJELLAND

BURGLAR ALARM

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Fig. 1.

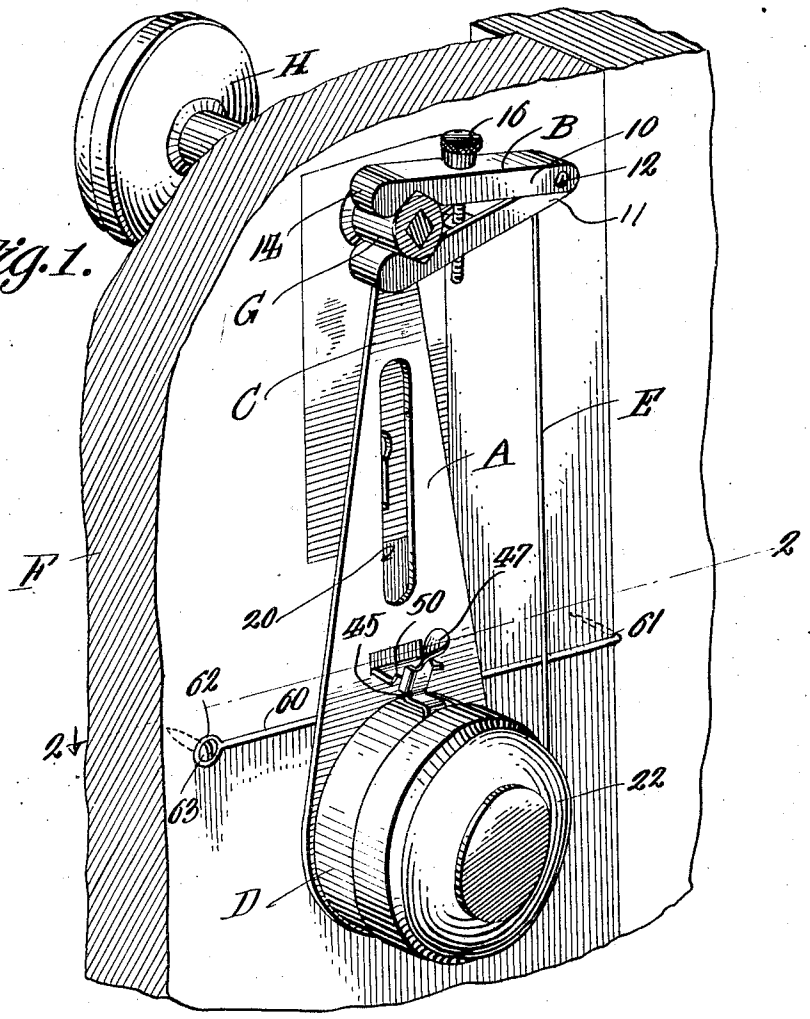
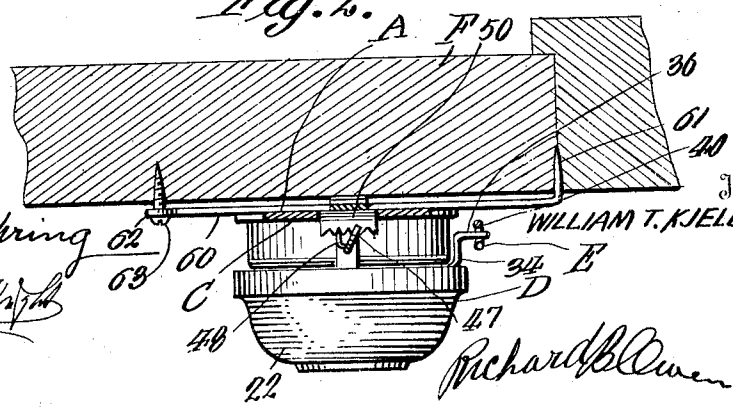


Fig. 2.



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Fig. 3.

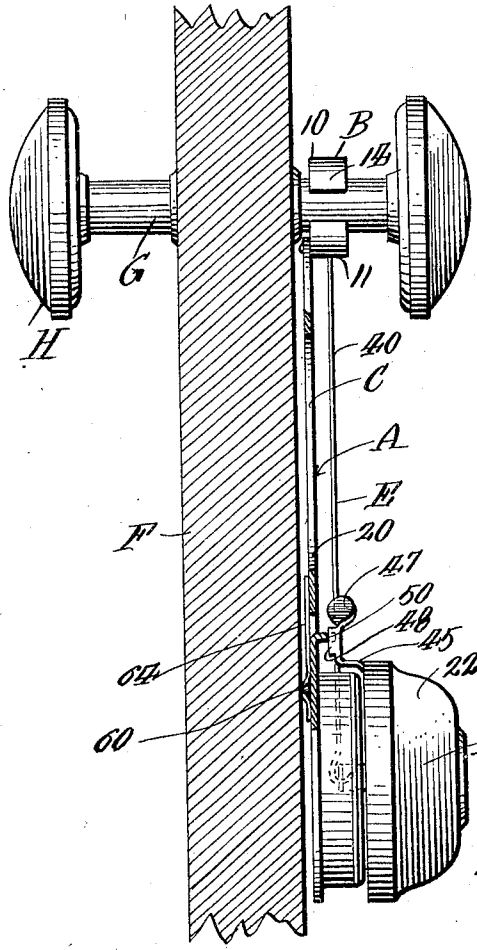


Fig. 4.

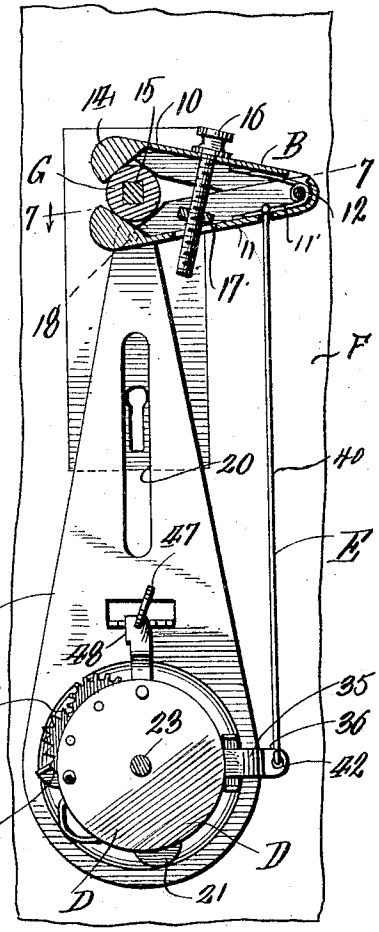
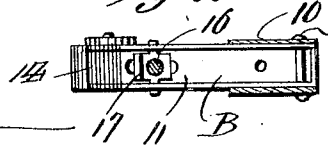


Fig. 7.



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BURGLAR ALARM

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Fig. 5.

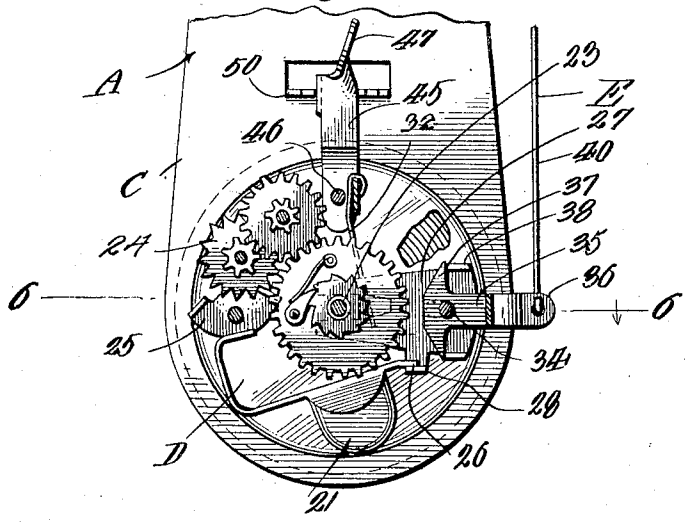


Fig. 6.

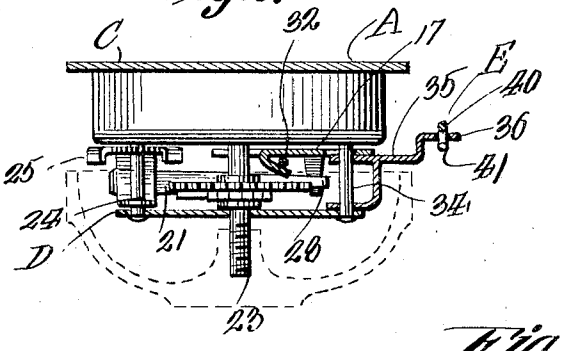


Fig. 8.

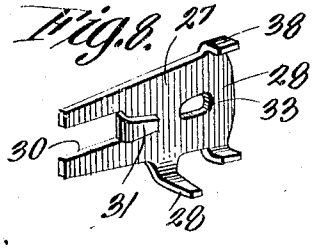
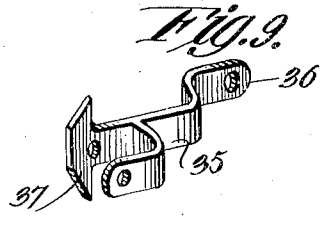


Fig. 9.



WITNESSES

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Patented Dec. 4, 1923. 1,476,340

UNITED STATES PATENT OFFICE.

WILLIAM T. KJELLAND, OF SNOHOMISH, WASHINGTON.

BURGLAR ALARM.

Application filed June 4, 1923. Serial No. 643,428.

To all whom it may concern:

Be it known that I, WILLIAM T. KJELLAND, a citizen of the United States, residing at Snohomish, in the county of Snohomish and State of Washington, have invented certain new and useful Improvements in a Burglar Alarm, of which the following is a specification.

This invention relates to alarms or signals and more particularly to devices for giving an alarm or signal, when unauthorized persons attempt to gain access into a room or house and is an improvement over my prior Patent #1,257,881 issued to me February 26, 1918.

The primary object of the present invention is to provide an improved means for quickly and readily placing the improved burglar alarm on a door knob, and novel means for holding the body plate of the alarm from against swinging movement, when the door knob is turned by unauthorized persons.

Another prime object of the invention is to provide an improved means for constructing the novel alarm, whereby a relative great leverage is obtained for actuating the trip, for setting the alarm bell in operation.

A further prime object of the invention is to provide an improved means for setting off the alarm and improved means for permitting the alarm to actuate continuously after being operated or for operating only a short length of time or during the turning movement of the door knob.

A still further object of the invention is to provide an improved burglar alarm for hotel rooms or the like of the above character, which will be durable and efficient in use, one will be simple and easy to manufacture, and one which can be placed upon the market at a reasonable cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described, claimed and illustrated in the accompanying drawings, in which drawings:

Figure 1 is a perspective view of the improved burglar alarm, showing the same applied to a door, the door knob spindle being shown in section.

Figure 2 is a detail section taken on the line 2—2 of Figure 1, showing the improved alarm in transverse section.

Figure 3 is a longitudinal section through the improved alarm showing the same applied to a door, the door being also shown in section.

Figure 4 is a front elevation of the improved alarm showing the same applied to a door, the door knob spindle being shown in section, the cover of the alarm being shown removed.

Figure 5 is an enlarged front elevation of the lower end of the alarm, showing the cover and frame plate of the alarm removed therefrom.

Figure 6 is a detail transverse section taken on the line 6—6 of Figure 5 through the alarm.

Figure 7 is a detail section taken on the line 7—7 of Figure 4 through the clamping means utilized for holding the alarm on the door knob.

Figure 8 is a detail perspective view of the stop plate for limiting the ringing of the alarm.

Figure 9 is a detail perspective view of the means utilized for operating the same stop.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A generally indicates the improved burglar alarm, which consists of the door knob shank engaging clamp B, the base plate C connected with said clamp, the alarm device per se D, and the means E for operating the alarm D from the door knob shank engaging clamp B.

The door knob shank engaging clamp B comprises a pair of movable arms 10 and 11, which are connected together, at their outer ends by means of a pivot pin 12. It is preferred to make the arms 10 and 11 out of sheet metal and construct the same U-shaped in cross section to add to the rigidity thereof. The opposite ends of the arms 10 and 11 from the pivot pin 12 terminate in clamping jaws 14 which have inner active faces of V-shape for engaging the shank of a door knob. These jaws 14 are adjustable toward and away from each other for engaging the door knob shank, by means of an adjustable thumb screw 16, which extends through the arm 10 and into a threaded nut 17 hingedly carried by the arm 11.

The base plate C is of a substantially triangular configuration and depends from the

arm 11 at a point directly below the centers of the jaws 14 and the plate is connected with the jaw of the arm 11, by means of a pivot pin or the like 18, which permits free swinging movement of the plate C in relation to the clamping member B.

It is of course, to be understood, that the alarm is particularly adapted to be placed on the inside of doors of hotel rooms and the like and thus the alarm device is to be considered as of portable nature.

In order to clearly illustrate the operation of the alarm, the same is shown in connection with an ordinary type of door F, having the usual door knob shank G to which is secured the door knobs H. The base plate C can be provided with a longitudinal y extending slot 20, which is adapted to align with the key-hole in the lock and thus persons looking through the key-hole from the outside of the door will not be able to see the alarm device and the slot 20 permits the insertion of the key into the key-hole through the said plate C. This key will prevent the swinging of the plate C and thus permit the positive operation of the alarm device per se.

The lower end of the base plate C has rigidly connected thereto in any preferred way, the alarm device per se D, which includes a bell of the usual type embodying a spring for operating the bell clapper. As shown, the clapper is indicated by the reference character 21 and is adapted to operate against the rotatable cover or bell 22, which is utilized for rotating the shaft 23 for winding up the spring. The shaft 23 operates through a train of gearing 24 and an escapement member 25, which carries the bell clapper 21. The specific construction of the bell does not enter into my invention. One end of the clapper 21 opposite to the escapement member 25 is provided with an extending ear 26 and a stop member 27 embodying an outstanding ear 28 is arranged for engaging the ear 26 of the clapper so as to prevent the normal operation thereof. This stop embodies a flat plate 29 having a slot 30 for receiving the shaft 23. A tongue 31 is turned back from the plate for receiving an operating rod 32, for governing the movement of the said stop 27, as will be hereinafter more fully described. An elongated slot 33 is provided in the plate 29 through which passes a post 34 of the frame of the alarm device per se D and on this post 34 is rotatably mounted the release or trip member 35. This release or trip member 35 embodies an outwardly extending arm 36, and a T-shaped head 37, which is adapted to normally engage parallel disposed upstanding lugs 38 formed on the plate 28.

The means E for operating the alarm device per se D consists of a rod 40, which is detachably connected to the arm 11 of the clamp device B adjacent to the outer end thereof and the lower end of this rod is provided with a hook 41, which extends through an eye 42 formed in the arm 36.

It is obvious that when the door knob is turned, that the clamp member B will be turned therewith, which will swing the release member 35 through the medium of the operating device E. This will operate the stop member 27 in such a manner as to move the ear 28 from out of the path of the ear 26 formed on the clapper 21, which will permit the operation of the clapper through the train of gearing 24 and the escapement member 25.

The plate C is prevented from swinging movement owing to the fact that the key extending through the slot 20 thereof will hold the plate against movement.

A swinging lever 45 is extended into the bell and is rotatably mounted upon a post 46 and this lever 45 has connected thereto the rod 32 and thus it is obvious that when the lever is swung outward, that the plate or stop 27 will be rotated causing the ear 28 to again move in the path of the ear 26 formed on the clapper 21. The outer end of this lever is provided with operating thumb teeth 47, and a dog or tooth 48 for engaging in a rack bar 50 struck out from the plate C. By means of this lever 45 the alarm can be set to ring a short time or for a long length of time. Thus when the lever 45 is swung to the right, this will increase the tension of the rod 32 which is of resilient material on the ear 31 and when the plate 28 is operated by the release trigger or trip 35, tension on the said trigger or trip 35 is released, the tension of the rod will throw the plate 28 back to its normal position so as to prevent further operation of the bell clapper.

When the lever 45 is swung to the left, it can be seen that the tension on the rod 32 is decreased, which will permit the continuous operation of the clapper 21 when the trip or trigger 35 is operated.

The alarm is usually held on the door by the door key, but when the key is removed, the supporting rod 60 can be utilized for holding the alarm in place. This rod 60 has one terminal thereof terminating in a sharp pointed prong 61 which can be forced between the door and jam, as clearly shown in Figure 1. When the alarm A is left on the door, the alarm can be set so as not to sound by turning the rod 60 around, so that the prong 61 will extend outwardly from the door and inserting a holding screw 63 in an eye 62 formed on the rod. After which the arms 10 and 11 are slightly released by loosening the set screw 16 and by swinging the lever to the right.

By tightening the screw 16 again the alarm is set for short rings. If desired a spring 11′ can be disposed between the arms

10 and 11 for normally holding the arms apart. The plate C carries a resilient tongue 64 which is adapted to engage in rear of the rod 60 and thus hold the plate C in position and against movement. It is of course obvious that the alarm can be readily removed when so desired, such as during day-time by simply unloosening the clamp member D and raising up on the plate C, which will permit the spring tongue 64 to release the rod 60.

From the foregoing description, it can be seen that an improved burglar alarm has been provided of exceptionally durable construction, which will permit the positive operation of the alarm upon the turning of the door knob and permit the alarm to be either rung continuously or for a short duration of time.

What I claim as new is:—

1. In a burglar alarm for door knob spindles comprising an adjustable clamp for engaging the spindles, a depending plate pivotally associated with the clamping member, an alarm bell associated with the lower end of the plate, means for operating the bell including a pivoted trip member, means connecting the trip member with the outer end of the clamp member, and means for permitting the bell to ring continuously or for a short duration of time after being operated, said means including a spring rod and an adjusting lever for said spring rod.

2. A burglar alarm operated from door knob spindles comprising an adjustable clamp for engaging the door knob spindle, a pendant plate secured to the clamp, a signalling device secured to the lower end of the plate, a trip member for operating the signalling device, a rod operatively connecting the trip member with the clamping device, resilient means for normally holding the trip device in an operative position, and adjustable means for rendering the resilient means inoperative.

3. In a burglar alarm adapted to be operated from a door knob spindle, a clamping device for engaging the door knob spindle, a pendant plate pivotally secured to the clamping member, a signalling device carried by the lower end of the plate, means for operating the signalling member, a rod connecting the operating means with the clamping member, a supporting rod for connection with a door, a resilient tongue carried by the plate for engaging said rod.

4. A burglar alarm comprising a relatively fixed plate, an attaching member for engaging a door knob to be turned thereby, an alarm apparatus secured to said fixed member including tripping means to set the same in operation, a rod connected with said tripping means and to said attaching member, a tensioning member for causing the return of the trip member after operation when so desired, and means for adjusting said tensioning member.

5. A burglar alarm comprising a fixed member, a clamping member for engaging a door knob to be turned thereby, an alarm bell carried by the lower end of the fixed member and including a vibrating clapper, an upstanding ear formed on the vibrating clapper, tripping means for the bell including a connecting member connected with the attaching member, a trip plate operated by said trip member including an ear for engaging the ear on the clapper, a resilient rod engaging said trip plate for normally holding the ear formed thereon in the path of the clapper, a pivoted lever carrying said trip member, and means for holding the lever in different positions on the fixed member.

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

WILLIAM T. KJELLAND.

Witnesses:
GEO. T. HENDRIC,
A. R. SLUYSTER.