(No Model.)

C. C. DAVIS.

PORTABLE BURGLAR ALARM.

No. 454,033. Patented June 16, 1891.

Fig 1

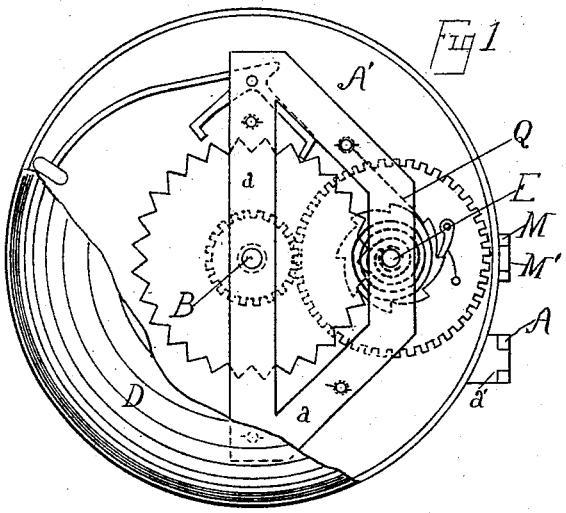


Fig 2

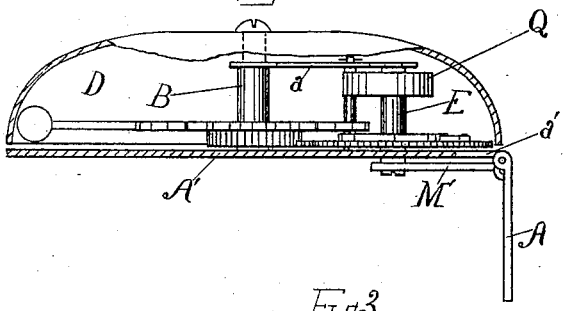
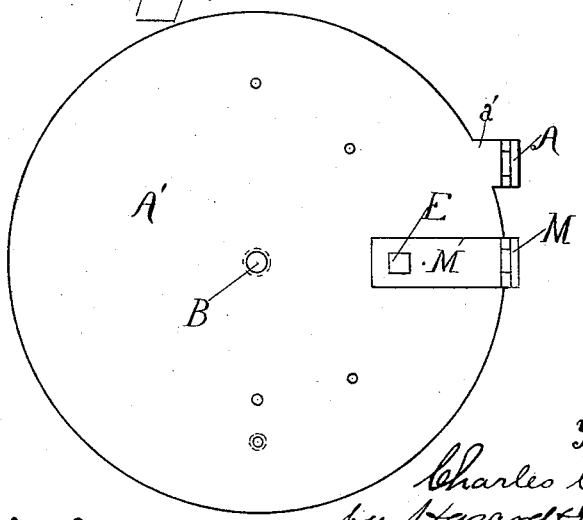


Fig 3.



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UNITED STATES PATENT OFFICE.

CHARLES CASSAT DAVIS, OF LOS ANGELES, CALIFORNIA.

PORTABLE BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 454,033, dated June 16, 1891.

Application filed February 9, 1891. Serial No. 380,803. (No model.)

To all whom it may concern:

Be it known that I, CHARLES CASSAT DAVIS, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles, State of California, have invented a new and useful Improvement in Portable Burglar-Alarms, of which the following is a specification.

My invention is an improvement on my portable burglar-alarm for which my application for Letters Patent was filed in the Patent Office at Washington July 18, 1890, Serial No. 359,218.

The objects of my invention are to decrease the number of parts, to reduce the size of the alarm, and to place all the mechanism, excepting the master-blade and winding-blade inside a chamber formed by the concave side of the bell, covered by a plate or base, to which the bell and all the alarm mechanism are attached; also, to so arrange the master and winding blades that when they are inserted into the crevice or crack between the door and the jamb or frame the alarm will lie flat against the door or frame, as is most convenient, and so be out of the way of any one inside the room.

Another object is to make the blades of such form and to so arrange them in relation to each other that the action of the alarm-operating spring will cause such blades to fill and clutch in any ordinary crack, and so hold the alarm in position irrespective of the size of the crack in which such blades are inserted.

The accompanying drawings illustrate my invention, in which—

Figure 1 is a plan view of my invention with a portion of the bell removed to expose the mechanism. Fig. 2 is a plain side view of my invention with a portion of the bell removed to expose the mechanism, and showing the blades in position for insertion in the crack or crevice. Fig. 3 is a plain bottom view showing the relative position of the winding-blade to the master-blade when in position to be inserted into the crack or crevice.

In my improved form I provide a plate or base A′, which is a flat circular-shaped piece of metal or other suitable material approximately equal in diameter to the mouth of the alarm-bell D. In the center of this base A′ is secured the bell-post B, upon which post is mounted the bell D. To such base is also secured the frame *a*, in which is journaled the upper ends of the alarm mechanism, the lower ends of such mechanism being journaled in the base A′.

The driving arbor or shaft E is journaled in the frame and base-plate or master-blade A′, and the winding-blade M is secured thereto through the medium of the winding-arm M′, fixed to the projecting end of such arbor, and is arranged substantially axially parallel with the arbor. To the upper end of this arbor is secured the inner end of the main-spring Q, the outer end of which spring is fixed to the frame *a*.

The driving-arbor E is operatively connected with the alarm mechanism by suitable means, such as those employed in my former alarm, and to which I make no claim herein.

The securing blade or member A of the base or master blade is hinged or otherwise attached to the base A′, and is arranged to project into a plane tangent to the path of the member M of the winding-blade, and the blades are arranged with their width tangential to such path, so that when the winding-blade is brought into the proper position for insertion into the crack between the door and the jamb the width of the two blades will be in the plane of such tangent, as shown in Fig. 3. This arrangement can be accomplished by placing the member A of the master-blade at any point outside the path of the member M of the winding-blade, and it is obvious that a degree of utility will be secured regardless of the form of the members A and M, for the rotation of the winding-blade will cause the two blades to spread apart, and thus cramp against the door and jamb and hold the alarm in its position until the door is opened. It is preferable, however, that the master-blade and winding-blade be flat, as shown, and arranged with their width tangential to the path of the winding-blade, for thereby the revolution of the winding-blade produces not only a cramping of the two blades upon the walls of the crack between the door and jamb by reason of their separation from each other, but also at the same time produces an additional cramping by turning the width of the blades

transverse or diagonal to the width of the crack, thus bringing the edges of the blade into more effective contact with the walls of the crack. For convenience I provide a projection *a* at the rim of the base and hinge the member A of the master-blade thereto.

It will be readily seen that the base A′ and the securing member A of the master-blade are practically a unit, to which the alarm mechanism is secured, and that the member A may simply be an integral continuation of the base A′; or it may be rigidly secured thereto instead of being hinged, as shown; also the winding-blade M may be integral with or rigidly secured to the winding-arm M′.

The blades may be made of any width desired; but I consider it preferable to make the member A of the master-blade approximately about one-half inch wide and the member M of the winding-blade somewhat narrower; but that is simply a matter of construction, and I do not limit my invention to any particular width or thickness of blades. The blades may also be arranged to hold the base of the alarm at other angles than a right angle to the blades, and I do not limit myself to any particular angle.

The operation is as follows: The mainspring being wound by rotating the member M of the winding-blade, such member is then held in the position shown in Fig. 3 and both the member M of the winding-blade and the member A of the master-blade are inserted in the crack or crevice. The spring Q operates to cause the winding-blade M to rotate about the arbor E; but any movement of rotation causes the members A and M to stand at an angle to each other, and the greater the movement the more acute will be the angle between the breadths of the two blades, thus enabling the blades to clutch in any ordinary crack or crevice. When the door or window is opened, the blades are released from the crack or crevice, and the mainspring Q then actuates the alarm mechanism and revolves the winding-blade. As hereinbefore described, the winding-blade does not touch the master-blade in revolving. In case one revolution is deemed sufficient the master-blade may be placed in such position that it will act as a stop to the winding-blade and prevent more than one revolution.

Other mechanism may be attached to control the number of revolutions of the winding-blade, and I do not limit myself to any particular means therefor. It is obvious that the base A′ is simply an enlarged portion of the master-blade A, and may be made only of sufficient width to sustain the alarm mechanism; but I prefer to use the form shown, as thereby the mechanism is protected.

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

1. The combination of the alarm mechanism, the frame and base, the driving-arbor journaled in such frame and base, the winding-blade secured to such arbor and arranged substantially axially parallel therewith, the mainspring attached to the frame and arbor, and the securing-blade secured to the frame and arranged to project into a plane tangent to the circle described by the revolution of the winding-blade.

2. The combination of the alarm mechanism, the frame and base, the driving-arbor journaled in such frame and base, the flat winding-blade secured to such arbor and arranged substantially axially parallel therewith and with its width tangential to its path, the mainspring attached to the frame and arbor, and the flat securing-blade secured to the frame and arranged with its width tangential to the path of the winding-blade.

3. The combination of the base, the bell secured thereto, the alarm-operating mechanism secured to such base and inclosed in the chamber formed by such base and bell, the master-blade attached to such base and adapted to stand at an angle thereto, and the winding-blade operatively connected with the alarm mechanism and adapted to stand at an angle to the base corresponding to the angle of the master-blade.

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