Feb. 12, 1929. 1,701,494

P. BUDEAN

ALARM DEVICE

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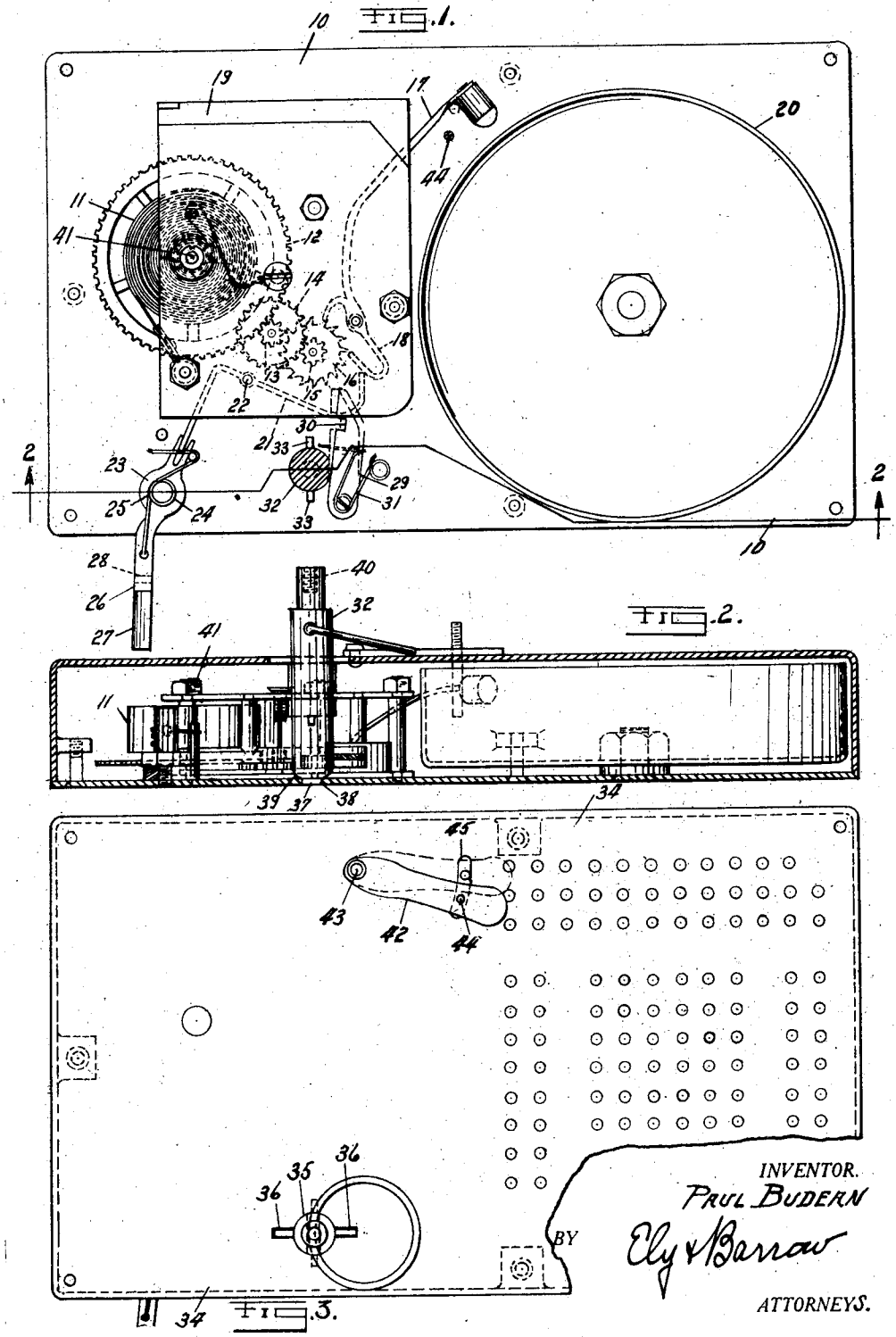


FIG. 1.

FIG. 2.

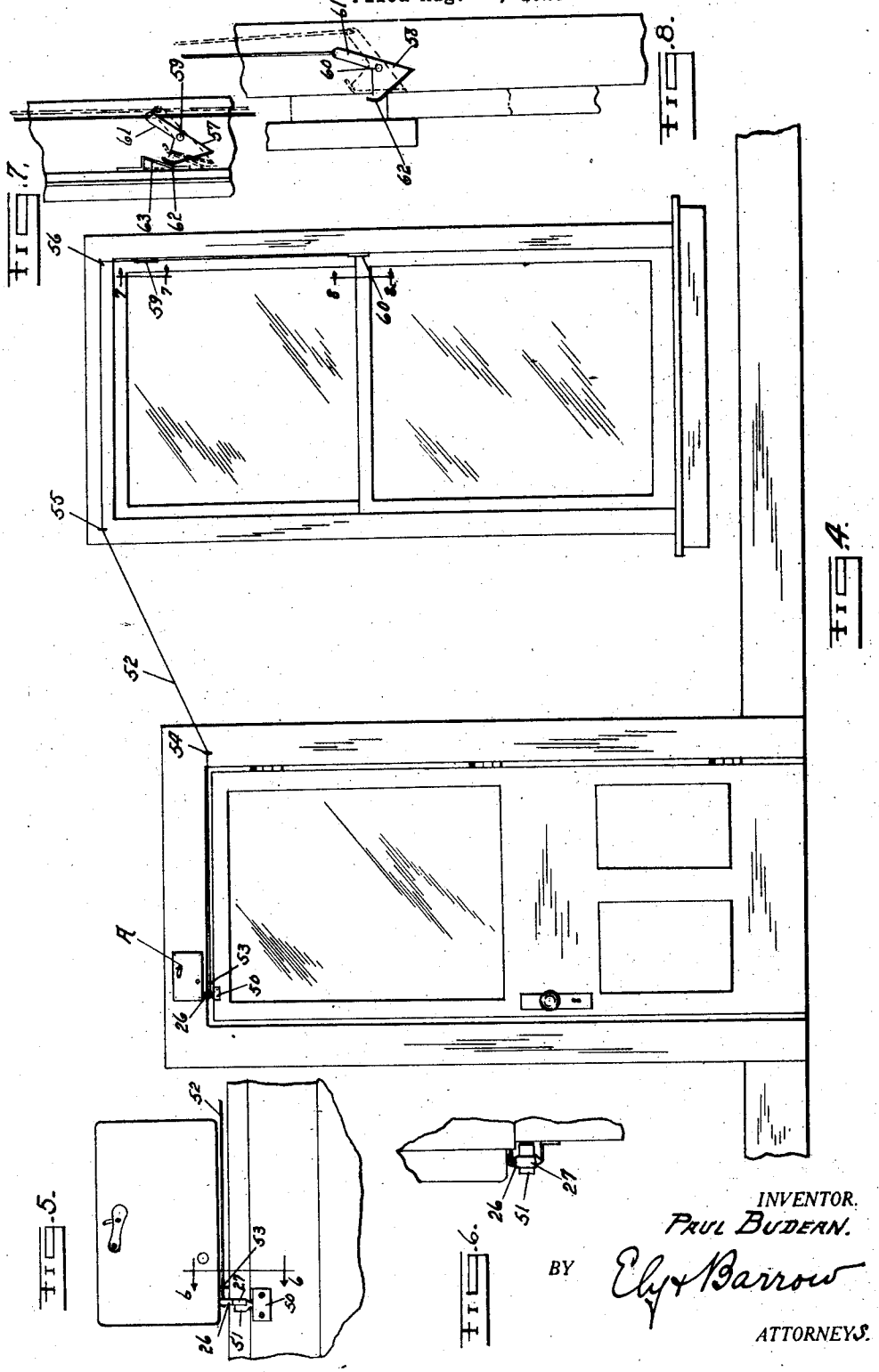
FIG. 3.

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UNITED STATES PATENT OFFICE.

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ALARM DEVICE.

Application filed August 22, 1928. Serial No. 301,309.

This invention relates to alarm devices such as may be used for burglar alarms or for indicating the entrance of customers into a store, etc.

The general purpose of the invention is to provide a simple, effective alarm mechanism and to provide improved means for controlling the same.

The foregoing and other purposes of the invention are attained in the alarm apparatus shown in the accompanying drawings and described below. It is to be understood that the invention is not limited to the particular form thereof shown and described.

Of the accompanying drawings:

Figure 1 is a front view of the alarm mechanism with the cover removed;

Figure 2 is a section on line 2—2 of Figure 1 with the cover replaced;

Figure 3 is a front view thereof with the cover in place;

Figure 4 is a diagrammatic showing of an installation of the device for actuation when a door or window is opened;

Figure 5 is an enlarged front view of the device illustrating the door actuated means;

Figure 6 is a section on line 6—6 of Figure 5;

Figure 7 is an enlarged side view of the upper window sash actuated means, and

Figure 8 is an enlarged side view of the lower sash actuated means.

Referring to the drawings, the numeral 10 designates a base plate on which is mounted any suitable form of clock mechanism including main spring motor 11, a train of gears 12, 13, 14 and 15 driven thereby for driving a cam ratchet wheel 16. The usual bell hammer 17 is actuated by said cam ratchet wheel 16 by the usual double pawl 18. This mechanism is all mounted as a unit on a frame 19 secured to base plate 10. Hammer 17 cooperates with a bell 20 mounted on base plate 10.

The double pawl 18 is normally held against actuation by the clock mechanism by means of a lever 21 pivoted at 22, one end thereof being urged against said pawl by a yoke 23 engaged with the other end of the lever. Yoke 23 is pivoted at 24 and is normally urged by a spring 25 in a direction such as to hold lever 22 in engagement with pawl 18. Yoke 24 is provided with an actuating arm 26 projecting beyond the base plate 10 and having thereon a cam member 27 and provided with an aperture 28 for purposes to be described.

Provision is made for either ringing of bell 20 only so long as arm 26 is moved against the action of its spring to release pawl 18 or for a continuous ringing of the bell after arm 26 has been moved and released, thus adapting the mechanism for giving a short alarm only when a door is opened or shut or for giving a continuous alarm when a door or window is opened.

For this purpose a latch 29 is pivoted on plate 10 and extends through a slot in lever 21, said latch being notched at 30 to engage said lever when it is actuated to release pawl 18 and to hold the pawl released for a continuous alarm, latch 29 being normally urged in a direction such as to lock lever 21 out of engagement with pawl 18 by means of a spring 31.

A key 32 is provided for engaging latch 29 to hold it in an inoperative position against the pressure of spring 31, the key having formations 33 thereon for retaining it in the alarm device when it is inserted through the cover and turned therein.

The cover for the mechanism is indicated at 34 and has an aperture 35 therein with lateral slots 36, 36 through which formations 33 on key 32 pass when the key is inserted. One end of key 32 is provided with a stud 37 fitting into an aperture 38 in base plate 10 aligned with aperture 35 in the cover and the key is tapered to an enlarged diameter upwardly from the stud, as indicated at 39, so as to actuate latch 29 to its inoperative position when the key is inserted. The other end of key 32 at 40 is designed to be connected with the stem 41 of the spring motor so that the key 32 may also be used to wind up spring 11.

Cover 34 carries a lever 42 pivoted thereon at 43 and having a pin 44 thereon extending downwardly through an arched notch 45 for engaging hammer 17 in one position of the lever to lock the alarm device against operation.

A typical installation of the alarm device as a burglar alarm is illustrated in Figure 4. The alarm device described above is indicated generally at A mounted on the top of the inside door frame with the arm 26 projecting downwardly therefrom. Cam bracket 50 is mounted on the top of the door with a cam 51 thereon arranged to engage

cam 27 on arm 26 and push the arm 26 to the right (see Figures 4, 5 and 6).

A flexible element, such as a wire 52, is connected through aperture 28 to arm 26 and is extended through eyelets 53, 54, 55 and 56 to brackets 57 and 58 pivoted on the window frame, respectively, at 59 and 60 (see Figures 4, 7 and 8). Brackets 57 and 58 are alike and each has an arm 61 to which wire 52 is attached and an actuating cam 62. The cam 62 on bracket 57 is arranged to be engaged by a cam 63 secured adjacent the top of the upper window sash, as indicated in dotted lines in Figure 7, to swing arm 61 downwardly when the sash is lowered. Cam 62 on bracket 58 is arranged to be engaged by the upper edge of the lower sash to swing arm 61 downwardly when this sash is raised. Accordingly, wire 52 in either case will actuate arm 26 to sound the alarm and this operation is effected by slight shifting of the cam bracket as the windows are opened. For this use key 32 is kept in the possession of the inhabitant of the building in which the alarm is installed, and the alarm sounded by opening either door or windows will be continuous either until the inhabitant inserts a key or the clock mechanism runs down.

When the alarm is used as a signal indicating the entrance of a customer into a store or the like, the key 32 is inserted in the alarm and left therein to hold latch 29 in its inoperative position.

It will be apparent from the foregoing that a simple, effective alarm apparatus has been provided. Obviously, numerous modifications of this invention may be resorted to without departing from the spirit thereof or the scope of the appended claims.

What is claimed is:

1. The combination with an alarm mechanism of means for setting the alarm going, means adapted normally to latch the first-named means in a position to permit a continuous alarm after the same is actuated, and removable key means for actuating said latching means to and retaining it in an inoperative position whereby the alarm mechanism is adapted for continuous or discontinuous alarms.

2. The combination with an alarm mechanism of means for setting the alarm going, means adapted normally to latch the first-named means in a position to permit a continuous alarm after the same is actuated, and removable key means for releasing the latching means to discontinue the alarm.

3. The combination with an alarm mechanism of means for setting the alarm going, means adapted normally to latch the first-named means in a position to permit a continuous alarm after the same is actuated, and removable key means for setting the latching means in an inoperative position either to discontinue the continuous alarm or to set the alarm mechanism for discontinuous alarms.

4. The combination with an alarm device adapted to be mounted on a door frame and having an actuating element projecting beyond said frame, said element having a cam thereon, of a cam bracket adapted to be attached to the door and to engage the cam on said element when the door is opened, one or more pivoted brackets adapted to be attached to a window frame and arranged to be actuated by opening of the window, and a flexible connection between said brackets and said element.

5. The combination with an alarm mechanism having an element thereof for setting the alarm going, of means movably mounted adjacent a remote window and adapted to be shifted slightly by opening of the window and a flexible member tensioned between said element and said means for actuating the element by said means.

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