

Nov. 15, 1927.

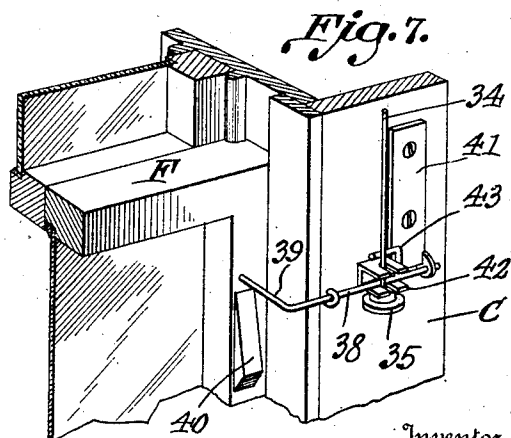
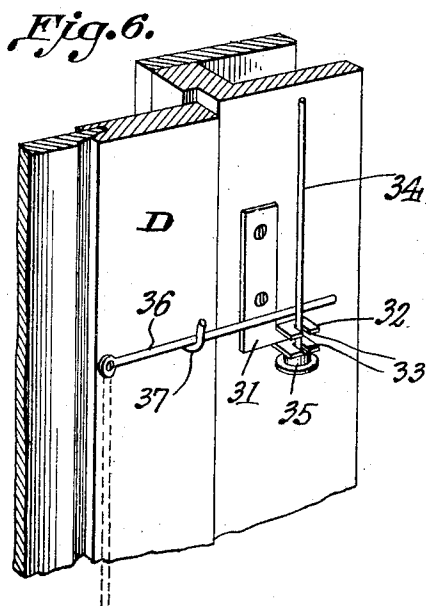
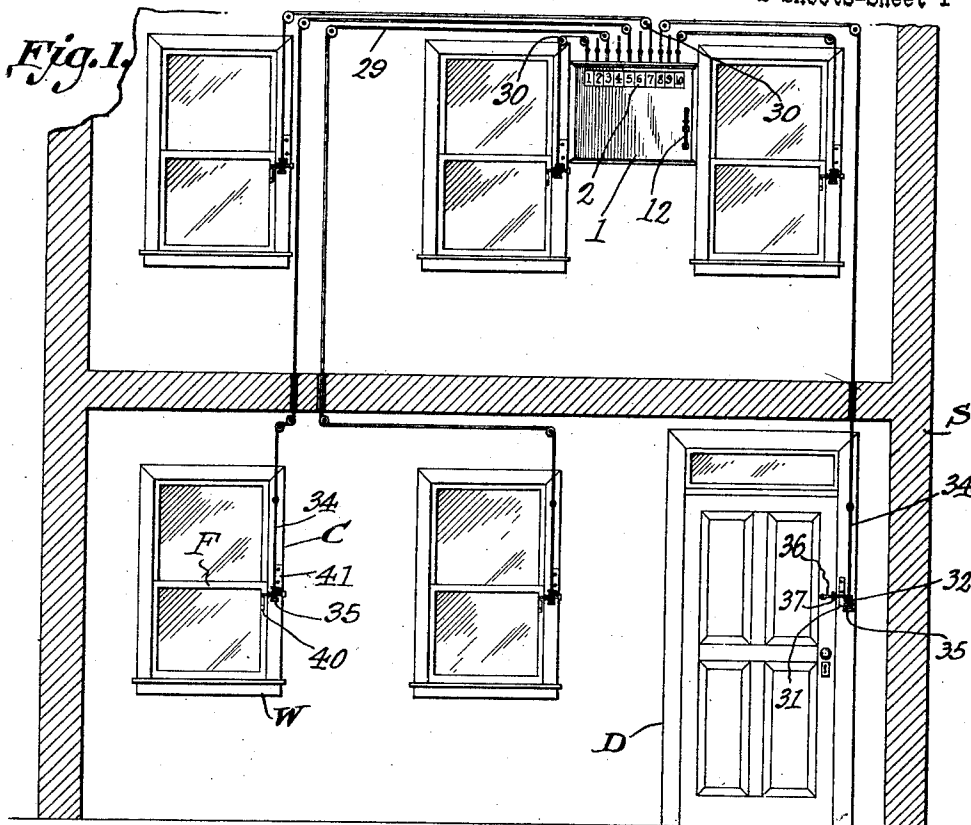
J. W. LAWHON

1,649,534

BURGLAR ALARM

Filed Aug. 4, 1924

2 Sheets-Sheet 1



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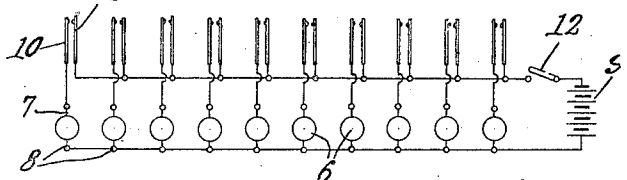
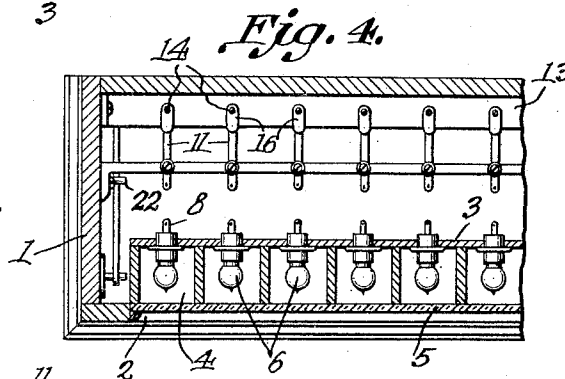
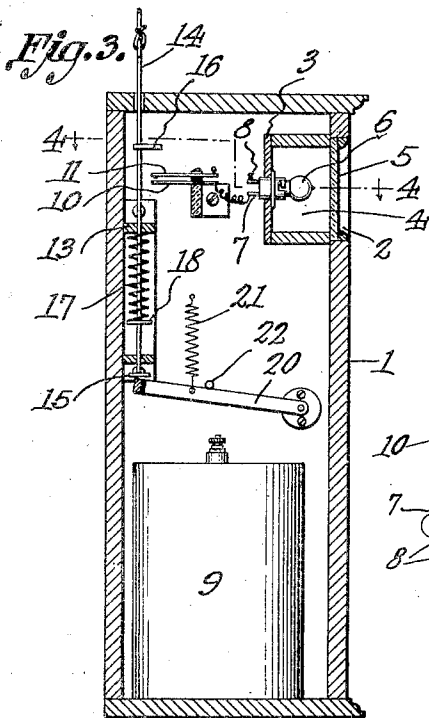
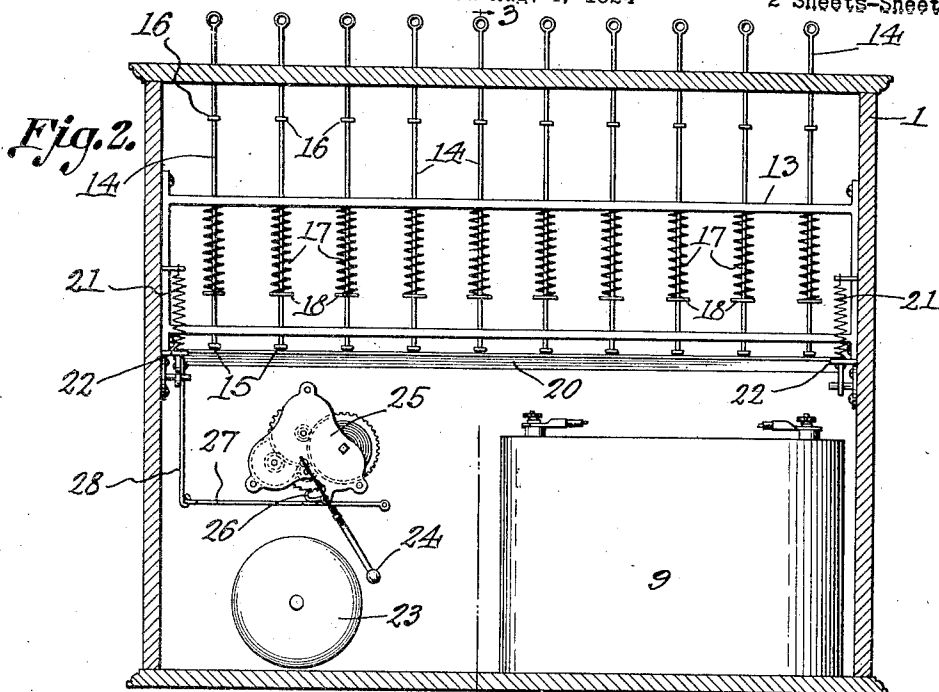
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BURGLAR ALARM

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

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BURGLAR ALARM.

Application filed August 4, 1924. Serial No. 730,006.

This invention relates to burglar alarms designed for use in residences, banks, and other structures.

One of the objects of the invention is to provide a means whereby when a door or window located in any part of the structure is opened, an alarm will be automatically sounded and an indicator will be operated showing the location of the opened door or window.

Another object is to provide an alarm and indicator mechanism which is simple and compact.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings

Figure 1 is a section through a portion of a structure having the present improvements combined therewith.

Fig. 2 is an enlarged section through the housing of the alarm and indicator mechanism.

Fig. 3 is a section on line 3—3, Fig. 2.

Fig. 4 is a section on line 4—4, Fig. 3.

Fig. 5 is a diagram showing the electric circuit forming a part of the invention.

Fig. 6 is a perspective view of one of the window operated pull rods.

Fig. 7 is a perspective of the door operated pull rods.

Referring to the figures by characters of reference 1 designates the housing of an annunciator having a window 2 back of which is arranged a box 3 which is divided into separate compartments 4. In front of each compartment is a transparent closure 5 on which suitable data may be displayed whereby the compartments may be identified. In the present instance, the compartments are identified by numerals located on the closure, these numerals also indicating the different doors and windows included in the system. Mounted in each of the compartments 4 is an electric lamp 6, the socket of which has separate contacts 7 and

8. The contacts 8 are all electrically connected to a battery 9 or other source of current as shown in Fig. 5 whereas each of the contacts 7 is electrically connected to one of a pair of normally spaced contacts 10. The other contacts 11 of these pairs are electrically connected as shown and by means of a switch 12 these contacts 11 can be placed in circuit with the battery 9.

A frame 13 is mounted in the housing 1 and slidably mounted therein are rods 14 each of which is provided at its lower end with a foot 15 and at an intermediate point with a finger 16. A spring 17 is mounted on each rod and thrusts downwardly against a collar 18 on the rod.

A bail 20 is pivotally mounted within the housing 1 and is yieldingly supported by springs 21 so as to bear against stops 22. This bail normally bears upwardly against the feet 15 of the several rods. The fingers 16 are normally located above the respective pairs of contacts.

Arranged within the housing is a bell 23 adapted to be sounded by a clapper 24 operated by a suitable mechanism indicated at 25, this mechanism being preferably of the ordinary spring operated gear type including an escapement 26. A rod 27 is removably mounted within the housing 1 and is connected by a rod 28 to one side of the bail 20. When this rod 27 is in normal or raised position it engages the escapement 26 and holds the alarm mechanism against operation.

Connected to the upper end of each of the rods 14 is a cord 29 and the different cords are mounted on suitably disposed guide pulleys 30 and extend to the doors and windows D and W in the structure S in which the alarm is installed. In Fig. 6 has been shown the means for coupling a door to be alarmed. In this figure a bracket 31 is attached to the door jamb and has superposed spaced ears 32 provided with slots 33. A rod 34 is adapted to be moved laterally into the slots and has a button 35 at its lower end for bearing upwardly against the lower ear. This rod is connected to and supported by one of the cords 29. Pivotaly connected to the door D is an operating finger 36 adapted to be swung into position between the rod 34 and the door jamb. The finger is supported in this position by a stop or hook 37 on the door.

It will be obvious that if a door equipped

as described is moved to open position, the finger 36 will push the rod 34 out of the slots 33. Thus the compressed spring 17 that has been held under restraint by the rod 34 and button 35 will be released and force this rod 14 downwardly. As spring 17 is stronger than the spring 21 the bail 20 will be swung downwardly. This will move the rod 27 away from the escapement 26, thereby allowing the bail mechanism to operate.

At the same time finger 16 on the rod 14 will move down onto one of the contacts 11 so as to bring it against the contact 10, thereby completing a circuit to the lamp 6 provided for the particular door. If the door is designated as 1 on the indicator, the numeral 1 will be illuminated by the lamp so that a person will know that the door marked 1 has been opened.

The apparatus can be reset by replacing the rod 34 in the slots 33. Obviously by swinging the finger 36 to a hanging position as shown by broken lines in Fig. 6 the door can be opened and closed without operating the alarm.

For the purpose of operating the alarm from a window when opened apparatus such as shown in Fig. 7 may be used. This includes a shaft 38 mounted for rotation on a window casing and having an arm 39 extending toward the window frame. A cam block 40 is secured to the window frame F so that when the window is raised the arm 39 will be swung upwardly by the cam. A bracket 41 corresponding with bracket 31 is secured to the window casing C and has superposed ears 42 slotted to receive the rod 34 on which is provided a button 35 as in Fig. 6. An angular finger 43 extends from the shaft 38 and normally projects between the rod 30 and the casing C.

From the foregoing it will be seen that when a window sash is raised and the shaft 38 rotated as explained, the finger 43 will press against rod 34 and push it out of the slots in ears 42. Thus the spring 17 held under restraint by this rod will be released and the bells will be sounded while at the same time the proper number used for designating this window will be illuminated.

By pushing the shaft 38 longitudinally the finger 43 can be removed from position between the casing C and rod 34 so that when the window is opened the alarm will not be sounded.

What is claimed is:

The combination with an annunciator including a spring controlled actuating member, of a depending restraining device connected thereto for holding the member against movement, a forked bracket fixedly mounted adjacent a sliding window adapted to receive the depending device, means on said depending device for engagement with the bottom of the bracket to hold said restraining device against movement in one direction relative to the bracket, a shaft extending across the forked bracket and journaled adjacent the window, a finger carried by the shaft and extending across the restraining device, an arm extending from the shaft, and cam means adapted to be attached to a window and to engage the arm when the window is raised, thereby to rotate the shaft, said finger being movable with the shaft to engage the retaining device and shift it out of engagement with the bracket, thereby to release the spring controlled actuating member of the annunciator.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

JOHN W. LAWHON.