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ELECTRIC BURGLAR ALARM SYSTEM

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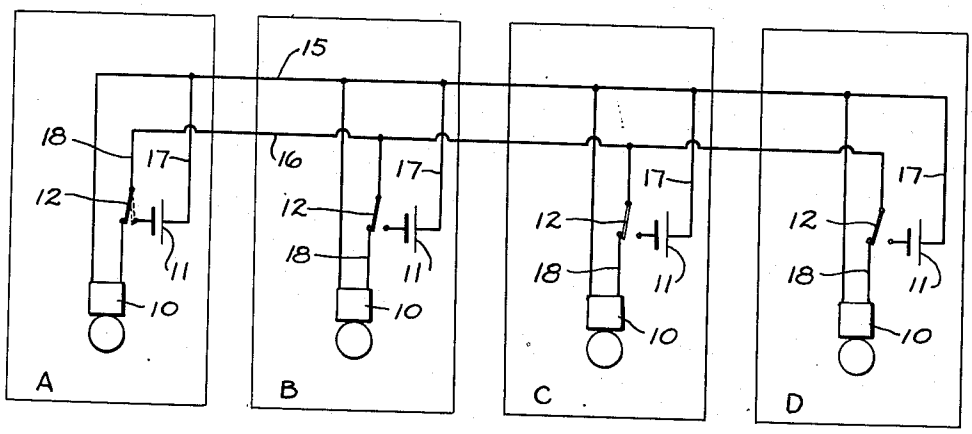


Fig. 1.

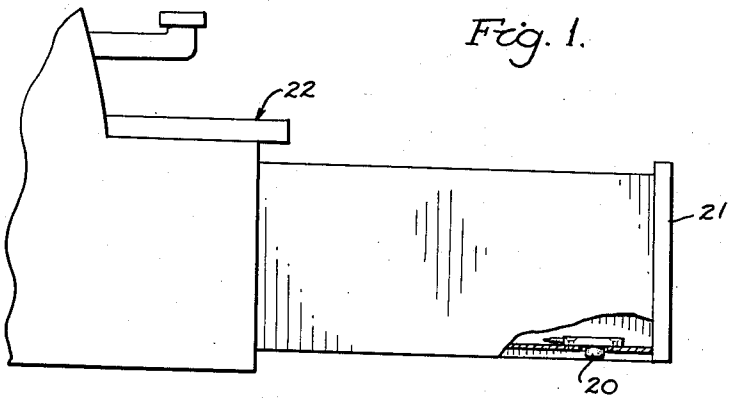


Fig. 2.

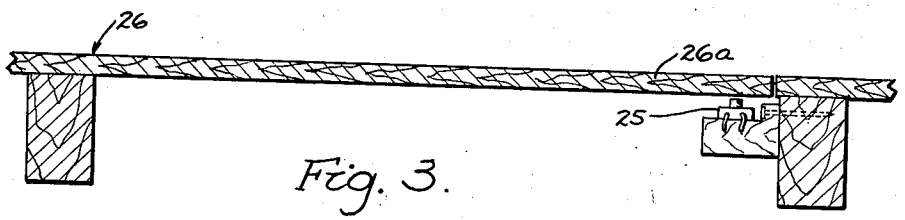


Fig. 3.

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ELECTRIC BURGLAR ALARM SYSTEM

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1 Claim. (Cl. 340—274)

1

This invention relates to electric signal systems and more particularly to an improved alarm system for use in stores and similar institutions in cases of holdups.

Burglar alarm systems are well-known in the art and are extensively used. Such systems are intended to give audible and often visible alarm signal when burglars break into a locked store, opening a window or a door and thus actuating an electric switch. Numerous systems of such a nature have been installed, and they operate successfully for the purposes intended.

It was found, however, that such systems are totally inadequate when a holdup takes place during working hours. In such cases, the bandits usually enter the store as customers and having slowly approached the cashier quickly surprise him or her, covering at the same time the customers that may be present in the store. It is clear that under such circumstances, the burglar alarm system that may be installed in the store is not actuated by the burglars, and no alarm is sounded automatically. However, should one of the employees or customers find it possible to actuate or operate a switch of such a burglar alarm, the sound of the alarm resulting therefrom makes it clear to the bandits that the holdup is a failure, and that they must escape immediately or be caught or killed. Under such conditions any suspicious move by the cashier or by any of the customers may invite immediate shooting. One may read nearly every day newspaper accounts of such occurrences.

I have come to the realization that handling of holdups and the use of conventional burglar alarm systems therefore is totally erroneous, and that it results in heavy toll of human life and limb every year. It should be distinctly appreciated that killings occurring in the process of holdups, while being legally classifiable as murders, usually are not predetermined and are mainly the natural result of accidents, excitement, fear of being caught or shot, or misunderstanding by a bandit of some innocent move made by a person present at scene of a holdup. The above is particularly true in cases of inexperienced bandits such as teen-agers, who may attempt a holdup for the sake of thrill, not realizing fully what may be involved or develop. Having started a holdup, a youth holding a loaded gun in his shaking hands completely loses his head when he sees that he is about to be caught, and pulling of the trigger on his part may be involuntary or even convulsive.

An additional cause of numerous unnecessary killings that occur early in the process of holdups is found also to be the result of the most unwise attempts on the part of victims to resist armed bandits, particularly when the bandit appears to be a scared youth. Many small storekeepers lost their lives in such attempts. It is my belief that publicity given to rare successful attempts to disarm a bandit holding up a store or a similar institution is very harmful to public interest, since it encourages such resistance which is very dangerous. Besides endangering the life of the resisting person, such resistance invites a grave crime, which while not being intentional as a matter of fact, is considered intentional and classified as murder as a matter of law in order to protect the public. If killing occurs, it totally ruins the life of a youth by subjecting him to heavy penalties of the law, for what as a matter of fact was the result of excitement and unfortunate chain of circumstances.

2

Instances are known where newspaper stories of a girl cashier or a storekeeper disarming a teen-aged bandit, were followed several days later by accounts of a father of many children killed by a teen-ager bandit who later voluntarily surrendered to the police.

One of the objects of the present invention is to provide an improved holdup alarm system whereby the above difficulties and disadvantages are overcome and largely eliminated, and unnecessary loss of human life, as well as ruining lives of a great number of young persons by inviting or hastening crimes are eliminated.

Another object of the present invention is to provide an improved holdup signal system whereby the signal is given in a manner not noticeable to the bandit and the alarm is sounded or otherwise given without this fact becoming known to the bandit, thereby enabling the police to arrive at the doors of the holdup store without the bandit appreciating that the alarm has been given and the holdup is discovered.

A still further object of the invention is to provide an improved holdup signal or alarm system with the aid of which holdups can be liquidated speedily and safely, with less danger to the store-keepers, to the police and even to bandits, and without inviting unnecessary killings that now constantly take place.

A still further object of the present invention is to provide an improved holdup signal system which greatly decreases chances of a successful holdup, and which by the mere fact of its being known to be in existence or installed in some places, has a strong deterring effect on would-be bandits, particularly of young age.

It is an added object of the present invention to provide an improved signal system of the foregoing nature, which is simple in construction, dependable in operation and is relatively inexpensive to manufacture and to maintain.

Further objects and advantages of this invention will be apparent from the following description and appended claim, reference being had to the accompanying drawings forming a part

of this specification, wherein like reference characters designate corresponding parts in the several views.

Fig. 1 is an electrical diagram illustrating a signal system embodying the present invention and installed in four stores or similar institutions.

Fig. 2 is a fragmentary view partly in section showing a concealed switch for operating the alarm, installed in a cash register.

Fig. 3 is a sectional view showing another concealed switch operated through a floor plank.

Before explaining in detail the present invention it is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawings, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

In accordance with the invention I provide an improved signal system adapted to interconnect into one unit a number of stores or other institutions. One convenient expedient is to interconnect into one unit stores of a single street block. My improved signal system is so designed that when a switch is actuated in a store that is being held up, the alarm is given in each of the interconnected stores with the exception of the store where the switch was operated. Thus no alarm is sounded or otherwise given where it can be noticed or appreciated by the bandit, but every other store of the unit or block is immediately alerted to the fact of the holdup.

Referring to the drawings, there is shown therein by way of example an improved electric signal system embodying the present invention. The system is illustrated and described as installed in four stores designated by the letters A, B, C, and D. It will be understood, however, that my improved system may be installed in any desired number, two or more stores or similar institutions, or at any number of separated posts in a single building or a group of buildings.

At each of the stores there is operatively installed in suitable place an alarm device 10 of any suitable type and adapted to give audible or visual signal or both. A source of electric energy 11 such as a battery, or a suitable line having an electric current circulated therein, is provided. The alarm device 10 may also be in two parts with an audible alarm operating inside the store and a visual alarm, such as a red light, outside of the store. A two-way switch 12 is adapted under normal conditions to have the alarm device 10 connected to the conductors 15 and 16. One terminal of the source 11 in each of the stores is connected by a conductor 17 to one of the lines, in the present instance to the line 15.

The other terminal of the source 11 normally is not connected to the line 16 but its connection thereto may be effected by actuating the switch 12. The switch 12 is so constructed that when it connects the other terminal of the source 11 to the line 16, it opens the conductor 18 and, therefore, disconnects the alarm device 10 of that particular store from the line.

It will now be understood from an examination of Figure 1 that when the switch 12 in the store A is moved into the position indicated in Figure 1 in dotted lines, the alarm device 10 in said store A is thus rendered unoperative; at the same time the source 11 of the store A becomes connected

to the lines 15 and 16, merely energizing said lines. Since the switches 12 connect the alarm devices 10 in the stores B, C, and D to the lines 15 and 16, said alarm devices start operating. Thus, in effect, the alarm is given in every store with the exception of the store A.

Switches 12 are installed in such a manner as to conceal them from observation, and to make it possible to operate or actuate them without the bandit noticing or understanding that alarm is being given. A very effective manner to effect such an installation is to provide a push-button switch, such as designated by the numeral 20, on the underside of the money box 21 of a cash register 22. It is well known that very often bandits order the storekeeper to open the cash register and will not touch the cash register themselves for fear of leaving fingerprints thereon.

Figure 3 illustrates an electric switch 25 installed under a floor plank 26. As shown in Figure 3, the free end 26a of the plank 26 is free to move down for a sufficient distance to actuate the switch. Such switch may be installed in a place likely to be accessible for walking or stepping on during a holdup.

Concealed switches may be also installed at any other suitable places. Such switches may be concealed as packages on shelves, moldings on counters, etc.

It will be understood that when alarm is given, the stores, B, C, and D may not appreciate just which one of the connected stores is being held up. In many cases this fact will be immaterial particularly when only two stores are connected together. However, should it be desired to give an indication as to which of the connected stores are being held up, the same may be done by providing a visual signal outside of the store, which signal may be connected to the lines 15 and 16 in a manner to operate when the switch is operated in the store.

With any of such connections when alarm is sounded, the alerted storekeepers will be in a position to give whatever aid is required, especially to call the police.

It will be understood that connected stores may work out among themselves a desired code. If bells are used for the alarm, one ring may be regarded as an accidental contact; two rings may be agreed upon to be used for testing the system, done periodically at a designated time; and three rings would mean a holdup. Thus, there is provided an improved alarm system whereby the objects of the present invention listed above and numerous additional advantages are attained.

I claim:

In a burglar alarm system interconnecting a plurality of institutions an electric circuit including a source of electric energy at each of said institutions, a system-operating switch and an alarm signal in each of said institutions; each of said switches being adapted normally to keep its alarm signal connected to said circuit and its source disconnected therefrom, and being further adapted when operated to disconnect its alarm system and to connect said source to said circuits.

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