

[54] **PORTABLE ALARM ACTUATED BY ATTEMPTED THEFT**

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[51] Int. Cl.² **G08B 13/22**

[58] Field of Search **340/280, 256, 63, 65**

[56] **References Cited**

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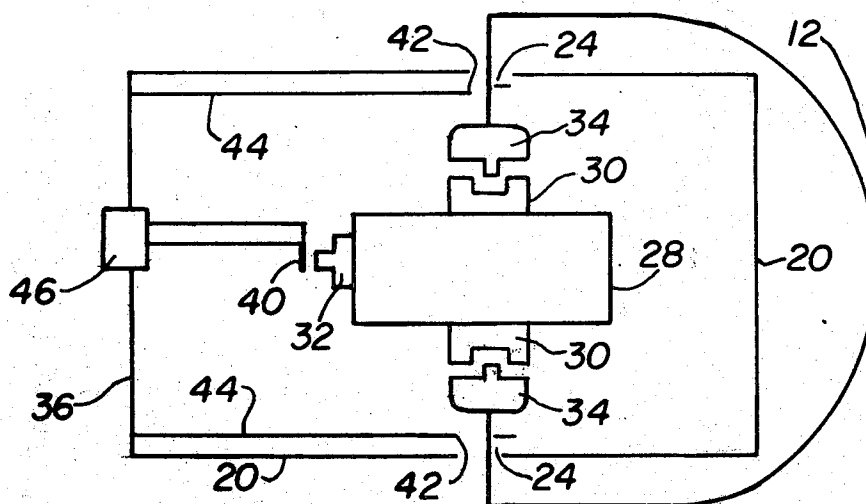
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Primary Examiner—Glen R. Swann, III

[57] **ABSTRACT**

A battery powered solid state device sounds an alarm when energized. The device has a normally open microswitch and two terminals. The device is armed when the switch is closed and the terminals interconnected by a cable and thereafter sounds the alarm when the cable is cut. The device is disposed in a hollow housing open at one end and secured to an object. Plugs at the ends of the cable extend through openings in the housing and engage the terminals. A removable plate which can be locked in place closes the open end of the housing. The plate has a prong which engages and closes the switch and slotted arms which engage the cable adjacent the plugs inside the housing to prevent removal of the plugs, the arms and prong functioning in this manner only when the plate is in place.

3 Claims, 3 Drawing Figures



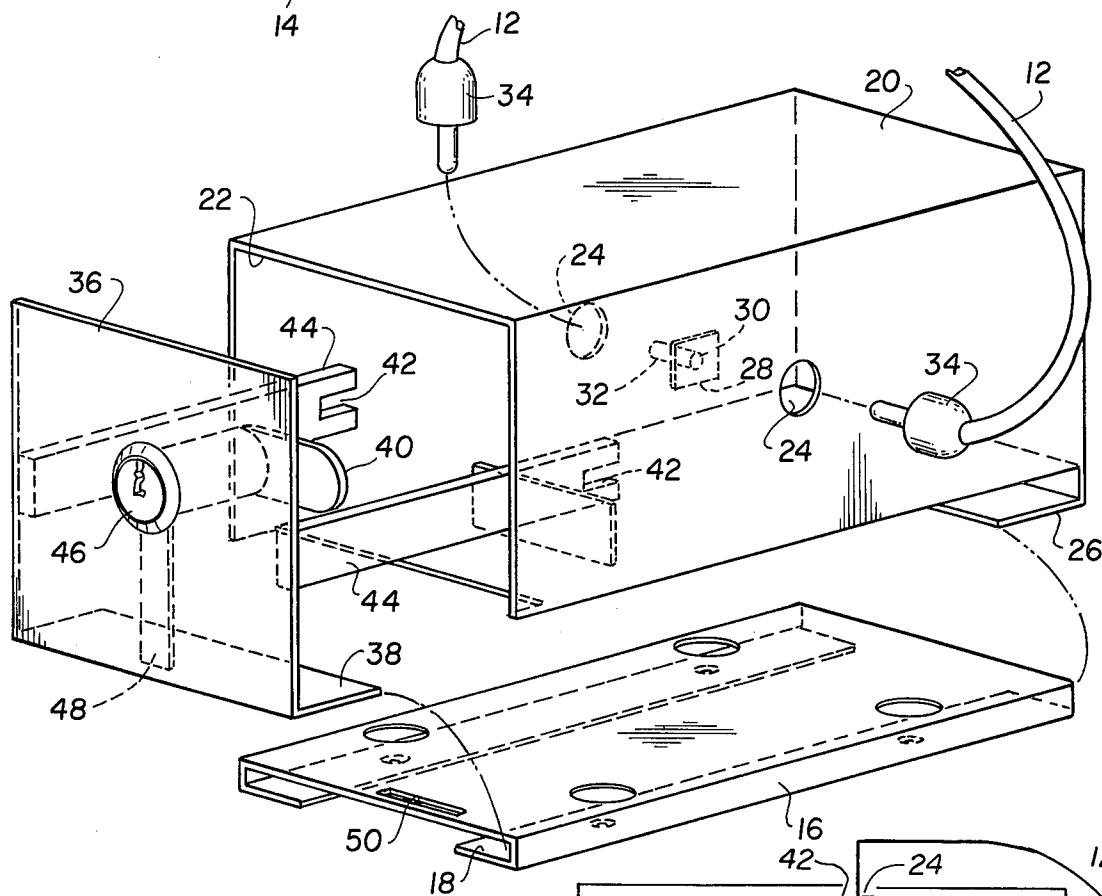
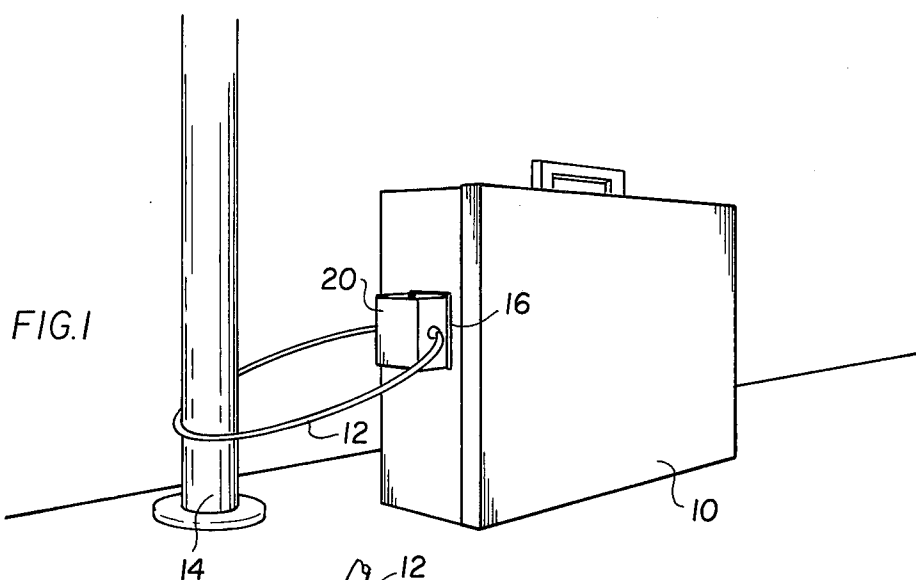
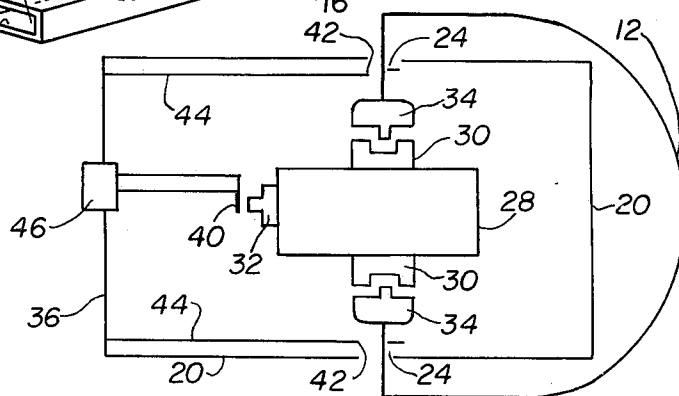


FIG. 2

FIG. 3



PORTABLE ALARM ACTUATED BY ATTEMPTED THEFT

SUMMARY OF THE INVENTION

This invention is directed toward apparatus for preventing theft of a movable object. This is accomplished by securing the object to a fixed support such as a post by an insulated flexible electric conductor and by actuating an audio alarm secured to the object when the conductor is cut or otherwise disconnected in order to steal the object.

To this end, a known type of battery powered solid state device has a normally open microswitch and two spaced terminals. When the switch is open, the device is inoperative. When the switch is closed and the terminals interconnected by the conductor the device is armed and any breaking of the connection between the terminals will actuate the device and sound the alarm.

A hollow housing having opposite openings in opposite side walls as well as one open end is secured to the object and contains the device. The conductor is wound or wrapped about the support with opposite end plugs extending through the openings and engaging the device terminals.

A plate can be removably disposed in the open end of the housing and locked in place. The plate when in place moves an inwardly disposed prong into engagement with the microswitch to close it. At the same time inwardly disposed slotted arms engage portions of the conductor inside the housing and adjacent the plugs to hold same in engaged positions with the terminals.

The invention will then function as described.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 is a perspective view of the invention in use;

FIG. 2 is an enlarged exploded view of the invention per se; and

FIG. 3 is a cut away top view of the invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Referring now to FIGS. 1 and 2, suitcase 10 is to be secured by insulated flexible electric conductor 12 to post 14 whereby any attempt to steal the case by cutting the conductor or penetrating the conductor by a sharp conducting object will sound an alarm. (Such reaction to this penetration eliminates the possibility of bypassing the area where the conductor is cut by another conductor.)

To this end flat plate 16 having bottom slots 18 is secured to the case. A hollow housing 20 open at a top end 22 and having oppositely disposed openings 24 in opposite side walls is secured to the plate by a slot engaging latch 26 at the opposite end.

A battery powered solid state device 28 of known type is disposed in the housing. This device includes an audio oscillator connected to a loud speaker and has two spaced terminals in the form of sockets 30 as well as a normally open microswitch 32. When the device is not armed, i.e. switch 32 is open and the sockets are electrically isolated from each other, the alarm will not sound. The device is armed by closing the microswitch and plugging in electrical plugs 34 at each end of the conductor 12 into corresponding sockets to electrically interconnect the sockets. Then any breaking of the connection between the sockets typically by cutting the

conductor will sound the alarm. Once the switch is opened, the conductor can be disconnected without sounding the alarm.

End closure plate 36 removably closes open end 22 with bottom latch 38 engaging a corresponding slot of plate 16. Inwardly extending member 40 on the plate engages switch 32 to close same when the plate 36 is in position. Similarly, slots 42 at the ends of parallel inwardly extending arms 44 engage portions of conductor 12 inside the housing adjacent the plugs when the plate 36 is in position. These slots are so narrow that the plugs cannot be pulled through and are held in engaged positions with the sockets when the arms are so set.

Key operated lock 46 on the plate 36 enables the plate to be locked in place with vertical prong 48 extending down into horizontal slot 50 in the plate 16. When lock 46 is unlocked, the prong is raised out of engagement with slot 50. As can be seen in FIG. 3, the device 28 has front disposed microswitch 32 and side disposed sockets 30. Once cable 12 is connected by plugs 34 to sockets 30 and plate 36 is secured to housing 20, member 40 engages microswitch 32 and closes it, while arms 44 are disposed with end slots 42 engaging the cable adjacent plugs 34.

Thus with the conductor wrapped around the post and connected in place and plate 36 locked in position, the device is armed and an attempt at theft will sound the alarm.

While I have described my invention with particular reference to the drawings, such is not to be considered as limiting its actual scope.

Having thus described this invention, what is asserted and claimed as new is:

1. Apparatus for sounding an alarm when a flexible cable securing a movable object to a fixed support is cut comprising

a hollow housing secured to the object, said housing being open at one end and having two oppositely disposed openings in opposite side walls;

a battery powered device for sounding an audio alarm when energized, said device having a normally open microswitch and two terminals, said device being armed when the switch is closed and the two terminals electrically interconnected to thereafter sound an alarm when the connection between said terminals is broken, said device being disposed in the housing;

an elongated flexible electrical conductor having an insulated outer cover and having terminal engaging means at each end, said conductor being wrapped around the support constituting said cable, each means extending through a corresponding opening to engage a corresponding terminal of the device; and

means for removably closing the open end, the means having an inwardly extending prong which engages said switch to close same when the means is in place, said closure means also having a pair of elongated inwardly extending arms which slidably and tightly engage portions of the conductor adjacent corresponding end means to prevent disconnection of terminal engaging means and terminal.

2. Apparatus of claim 1 wherein the closure means has a lock.

3. Apparatus of claim 2 wherein each arm has a conductor receiving slot.

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