United States Patent

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[54] **BURGLAR ALARM TRIGGERED BY BREAKING OF A MAGNETIC CIRCUIT**

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[52] **U.S. Cl.** **340/274,** 49/13, 200/61.84, 340/273

[51] **Int. Cl.**.....**G08b 13/08**

[58] **Field of Search**...340/274, 273, 174 PM; 335/207, 335/205; 200/42 R, 61.84, 61.62, 42 R; 116/85; 49/13

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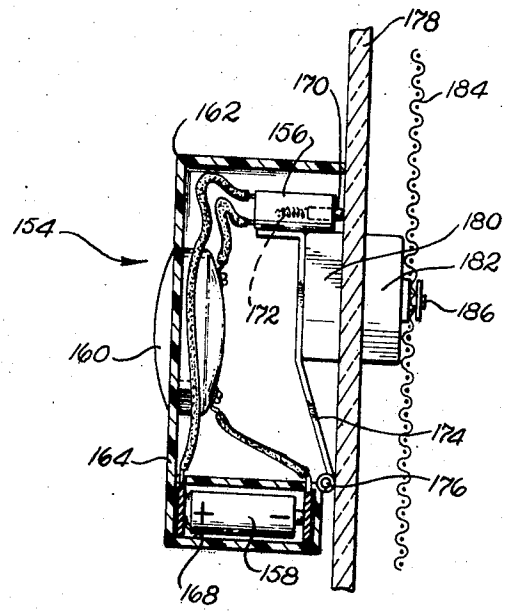
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[57] **ABSTRACT**

A burglar alarm for use on a window in which the alarm is triggered by breaking of a magnetic circuit across the window. The magnetic circuit is defined by a pair of movable bar magnets carried on opposite sides of the window. One bar magnet is carried by a window screen or other movable member which when displaced carries it away from the window to break the magnetic circuit. The other bar magnet then moves to close an electrical alarm circuit.

17 Claims, 13 Drawing Figures

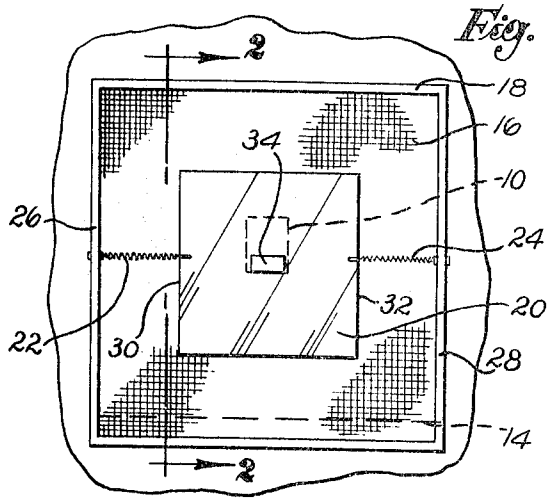


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SHEET 1 OF 2

Fig. 1.



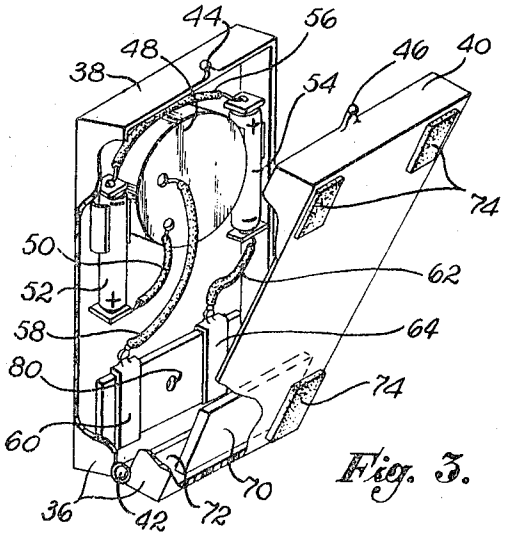


Fig. 3.

Fig. 2.

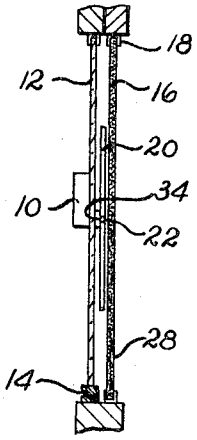
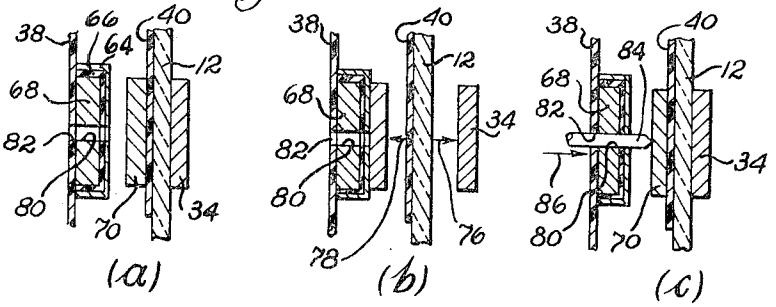


Fig. 4.



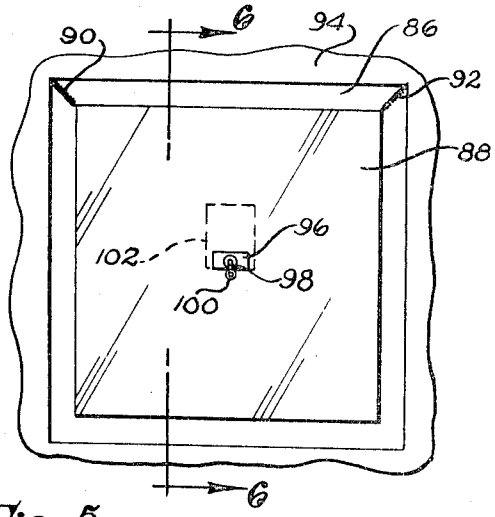


Fig. 5.

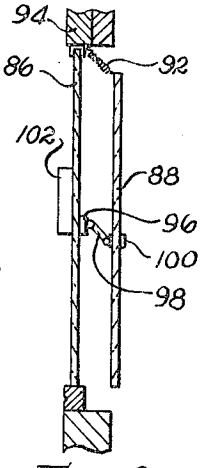


Fig. 6.

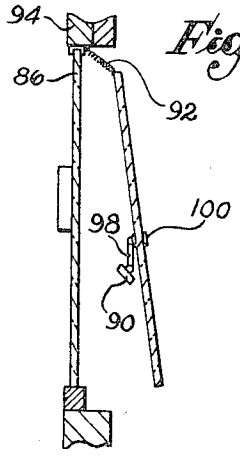


Fig. 7.

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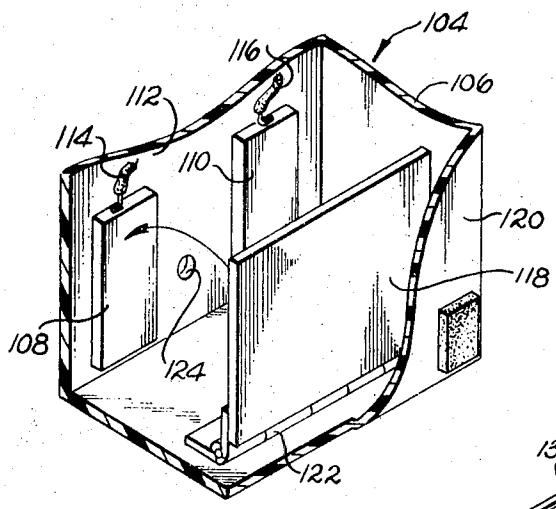


Fig. 8.

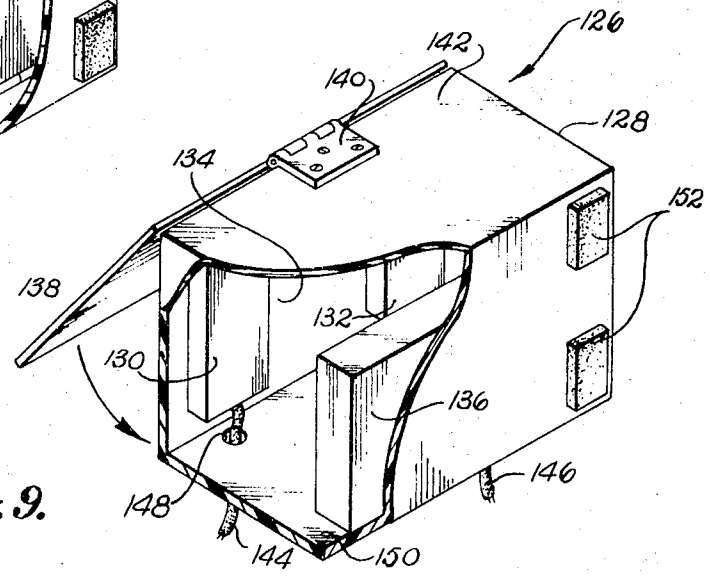


Fig. 9.

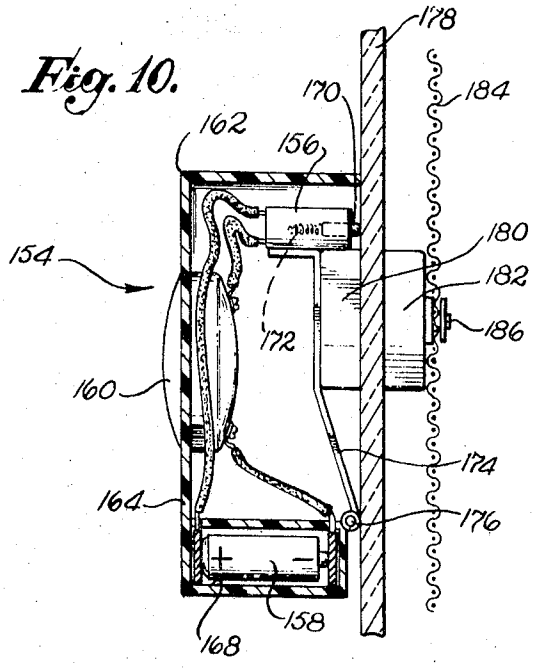


Fig. 10.

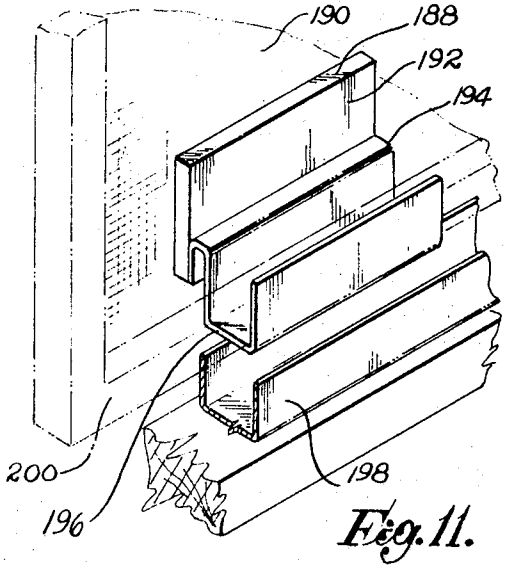


Fig. 11.

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BURGLAR ALARM TRIGGERED BY BREAKING OF A MAGNETIC CIRCUIT

FIELD OF THE INVENTION

The field of art to which the invention pertains includes the field of burglar alarms, particularly sound generating alarms.

BACKGROUND AND SUMMARY OF THE INVENTION

The present invention provides a low cost, compact, self-contained burglar alarm unit which can be utilized on any window to provide a tamper proof alarm. The unit can operate on batteries and the alarm generating components can be installed entirely on the inside of a window.

In accordance with this invention, a burglar alarm is provided in which the components define a magnetic circuit across a window, or the like, whereby upon breaking the circuit an alarm is triggered. Specifically, an alarm unit is disposed on the inside of the window and includes a magnet which cooperates with a second magnet on the opposite side of the window. The second magnet can be carried by a movable member such as a window frame or a flat sheet of plexiglass or other transparent member which acts as a barrier obstructing access to the window. The magnets cooperate to define a magnetic circuit and movement of the barrier results in displacement of the second magnet to break the magnetic circuit.

The magnet on the inside of the window is disposed at an alarm set position. A signal generating circuit cooperates with this magnet so as to energize a signal generator when the magnet is moved to an alarm position. The magnet is continuously urged to the alarm position either by the force of gravity or by attraction to paramagnetic or magnetic material disposed at the alarm position. In a particular embodiment, the alarm circuit includes spaced contacts at the alarm position defining the circuit as open and the magnet when displaced to that position bridges the spaced contracts to thereby close the alarm circuit and trigger the alarm. In another embodiment, the alarm circuit includes a switch, such as a micro-switch which is spring loaded to close the signal generator circuit but carried by the first magnet against the force of the spring at the alarm set position so as to open the signal generator circuit. Upon breaking of the magnetic circuit, the first magnet moves away from the alarm set position, by gravity or otherwise, allowing the switch to close the signal generator circuit thereby triggering the alarm.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a front elevational view of a window incorporating a burglar alarm in accordance with this invention;

FIG. **2** is a cross-sectional view taken on line **2—2** of FIG. **1**, in the direction of the arrows;

FIG. **3** is a perspective view of a particular alarm unit shown open and partially broken away;

FIGS. **4***a–c*are schematic representations of the manner of operation of the burglar alarm unit of FIG. **3**;

FIG. **5** is a front elevational view of an alternative system utilizing a burglar alarm of this invention;

FIG. **6** is a cross-sectional view taken on line **6—6** of FIG. **5**, in the direction of the arrows;

FIG. **7** is a view similar to that of FIG. **6** but in a displaced position wherein the alarm is triggered;

FIG. **8** is a schematic, perspective view, partially broken away, of a portion of an alternative alarm embodiment of this invention;

FIG. **9** is a schematic, perspective view, partially broken away, of a portion of another alternative alarm embodiment of this invention;

FIG. **10** is a schematic, cross-sectional view of still another alternative alarm embodiment of this invention; and

FIG. **11** is a perspective view of a connector which can be utilized in accordance with an embodiment of the invention.

DETAILED DESCRIPTION

As required, detailed illustrative embodiments of the invention are disclosed herein. However, it is to be understood that these embodiments merely exemplify the invention which may take many forms radically different from the specific illustrative embodiments disclosed. Therefore, specific structural and functional details are not to be interpreted as limiting, but merely as a basis for the claims which define the scope of the invention. Somewhat in this regard, the illustrative embodiments herein comprise self-contained alarms operating off batteries. However, it is to be emphasized that the construction herein is readily adaptable to the utilization of line current such as household current. Furthermore, the embodiments disclosed utilize a sound generator as an alarm signal, but the concepts herein are applicable to visual alarms and to remotely signaling alarms.

Referring now to FIGS. **1** and **2**, there is illustrated one manner of utilization of an alarm unit **10** in accordance with the present invention. There is illustrated a window **12** secured within its sash **14** which also carries a window screen **16** in its frame **18**. A flat, rigid transparent sheet **20** of plexiglass, or the like is carried centrally of the window screen **16** by means of a pair of oppositely disposed springs **22** and **24** clamped to side members **26** and **28** of the screen frame **18** and to opposite side edges **30** and **32** of the plexiglass sheet **20**. A bar magnet **34**, which can be encased in plastic, is secured centrally of the plexiglass sheet **20**, by adhesive or the like, so as to abut the windowpane **12** when the window screen **16** is in its normal position. The alarm unit **10** is carried on the other side of the windowpane **12** so as to effect a magnetic circuit with the bar magnet **34**, as will hereinafter be described in more detail.

The alarm unit **10** is completely self-contained in that it includes a source of current and a sound generator and is responsive to a break in the magnetic circuit to generate a loud sound to signal such a break. The magnetic circuit is broken by displacement of the bar magnet **34** which occurs by a movement of the plexiglass sheet **20**, such as by attempting to remove or cut the window screen **16**. The result is that an attempt to burglarize by entering the window **12** is foiled by the triggering of the alarm unit **10**.

Referring now to FIG. **3**, the unit-**10** is illustrated in more detail. The alarm unit **10** includes a plastic case **36** having two halves **38** and **40** opening on a hinge **42** along its bottom edge and closing by means of matingly

engageable clasp halves **44** and **46**. The alarm unit **10** includes a three volt horn **48** which is serially connected over the line **50** to a pair of penlight batteries **52** and **54**, interconnected by a line **56**. The horn **48** is connected over the line **58** to an electrically conductive strip **60** and the penlight battery **54** is connected over a line **62** to another electrically conductive strip **64** spaced from the first mentioned strip **60**. Referring briefly to FIG. **4***a*, each electrically conductive strip **60** and **64** is supported via electrical insulation **66**, such as rubber or the like, on a bar **68** of paramagnetic material. The strips **60** and **64** are formed of nonmagnetic material, such as copper, aluminum, brass, or the like. The bar **68** may be ferromagnetic and made of iron, steel or the like; alternatively, it may be a bar magnet, e.g. constructed of Alnico metal.

The foregoing components are contained in one-half **38** of the case **36**, the other half **40** being empty except for a loosely contained bar magnet **70** which is supported by the lower edge **72** of the case half **40**. The bar magnet **70** is of Alnico metal of rectangular shape and of a length sufficient to bridge the spaced conductive strips **60** and **64**. With the case halves **38** and **40** closed, the bar magnet **70** would be magnetically drawn to the case half **38** by means of the bar **68** of paramagnetic or magnetic material. In use, however, the unit **10** is disposed with the bar magnet **70** opposite and aligned with the aforementioned bar magnet **34** (FIG. **2**) on the opposite side of the windowpane **12**. The bar magnet **70** is thus held spaced from the conductive strips **60** and **64**, albeit continuously urged toward the strips **60** and **64** as a result of the presence of the paramagnetic or magnet bar **68**.

Referring to both FIGS. **2** and **3**, the alarm unit **10** is positioned so that the case half **40**, containing the bar magnet **70**, is facing the windowpane **12** and is secured to the windowpane **12** by means of double sided adhesive strips **74**, or the like. Initially, to set the alarm, the unit **10** is positioned with the case halves **38** and **40** opened and the bar magnet **70** manually disposed into magnetic engagement with the bar magnet **34**. Thereafter, the case **36** is closed and the alarm is set.

Referring additionally to FIG. **4**, the manner of operation of the unit **10** is schematically illustrated. As shown in FIG. **4***a*, a magnetic circuit is effected between the bar magnets **34** and **70** whereby the bar magnet **70** is secured in an alarm set position spaced from the electrical conducting strips **60** and **64**. Referring to FIG. **4***b*, upon movement outwardly of the outside bar magnet **34**, as indicated by the arrow **76**, the magnetic circuit is broken and the inside bar magnet **70** is drawn by attraction to the paramagnetic or magnetic bar **68**, as indicated by the arrows **78** to abut the electrically conductive strips **60** and **64**. The bar magnet **70** thus bridges the strips **60** and **64** to close the alarm circuit, thereby energizing the 3-volt horn **48**. The horn is selected so as to generate a piercing sound, warning the occupants of the building that entrance has been attempted and thwarting the burglary by giving clear indication to the burglar that his presence has been detected.

Referring to FIG. **4***c*, after the alarm has been noted, and it is desired to reset the unit, the outside magnet **34** is respositioned and the case **36** opened whereupon the magnetic bar **70** can be placed back into alignment with the magnetic bar **34**. Alternatively, the bar **68** and adjacent material of the inner case half **38** can be formed with aligned openings **80** and **82** through which is thrust a thin rod **84**, as indicated by the arrow **86** to push the inner bar magnet **70** against the case half **40** in alignment with the outside bar magnet **34**.

It will be appreciated that the outside magnet **34** can be replaced by a bar of paramagnetic material which has sufficient attraction for the internal bar magnet **70** so as to function in the manner described. Alternatively, the internal bar magnet **70** can be replaced by a bar of paramagnetic material provided the bar **68** supporting the spaced conductive strips **60** and **64** is constructed of magnetic material. Other changes and modifications can be made consistent with the foregoing concepts. It will also be appreciated that when the alarm is not used it is in a quiescent state and does not draw current from the batteries **52** and **54**. It is only when an alarm is generated that current is drawn with the result that the alarm unit **10** has a lifetime as long as the storage life of the batteries. Periodic testing is easily accommodated by simply opening the case and momentarily bridging the strips **60** and **64** with the bar magnet **70**. In place of the 3-volt horn **48**, one could utilize any signaling means in that the lines **50** and **58** leading to the horn **48** can instead lead to any signaling device, on the premises or remote.

Referring now to FIGS. **5–7**, a modification of the alarm system is illustrated. In this embodiment, the window **86** is not provided with a window screen but is protected by a large sheet **88** of plexiglass or of heavy screen material, as desired. The sheet **88** substantially covers the window **86** and is supported at its upper corners only by means of springs **90** and **92** securing the upper corners to the window frame **94**. The sheet **88** thus hangs downwardly in front of the window **86**. A bar magnet **96** is pivotally secured by means of a linkage **98** to a coupling volt **100** centrally through the sheet **88**. An alarm unit **102**, identical to the alarm unit **10** of FIGS. **1–4**, is secured to the opposite side of the windowpane **86** so that its internal bar magnet is aligned with the external magnet **96**. When the sheet **88** is moved away from the window **86**, the bar magnet **98** is caused, by the linkage **96**, to drop downwardly, not only breaking the magnetic circuit, but thereby making replacement of the bar magnet **96** a difficult procedure. In the arrangement depicted in FIGS. **1** and **2**, it might be possible to turn off the alarm by realigning the external bar magnet **34** and jostling the windowpane **12** to draw the internal bar magnet **70** back into magnetic engagement with the external bar magnet **34**. In the arrangement illustrated in FIGS. **5–7**, such an attempt is made much more difficult and generally would require the use of a long rod or the like to hold the external bar magnet **96** up against the window, making realignment by jostling more unlikely.

Referring now to FIG. **8**, there is illustrated an alternative embodiment. The alarm unit **104** is contained within a plastic case **106** which cannot be snapped open as the case **36** depicted in FIG. **3**. A pair of electrically conductive strips **108** and **110** are secured, by adhesive, or otherwise, against the rear wall **112** of the case and are connected via lines **114** and **116** to an alarm (not shown) in a manner similar to the arrangement depicted in FIG. **3**. In this embodiment, the elec-

trically conductive strips are constructed of paramagnetic material, such as tin, so as to magnetically attract a bar magnet **118** movably disposed on the front wall **120**.

The bar magnet **118** is pivotally secured in the case by means of a hinge **122** which allows the bar magnet **118** to pivot into bridging engagement with the electrically conductive strips **108** and **110**. In operation, when an external magnet such as the bar magnet **34** or **96**, as previously described, is placed in proximity to the front wall **120** in alignment with the forward position of the bar magnet **118**, it secures the bar magnet **118** in an upright position spaced from the conductive strips **108** and **110**. Upon breaking of that magnetic circuit by removal of the external bar magnet **34** or **96**, the bar magnet **118** is then attracted to the electrically conductive strips **108** and **110** and pivots, as shown by the arrow, into bridging engagement with the strips **108** and **110** to thereby close the alarm circuit, signaling the fact that the external bar magnet **34** or **96** has been displaced.

To return the bar magnet **118** to its original position, the external bar magnet **34** or **96** is realigned in its alarm set position and a shaft similar to the shaft **84** depicted in FIG. **4***c* is inserted within an opening **124** defined through the rear case wall **112** until engagement with the bar magnet **118** whereupon the shaft and magnet **118** can be pushed forward until the magnet **118** is in its upright position.

As further modification to the alarm unit **104** of FIG. **8**, a spring can be located between the bar magnet **118** and front case wall **120** urging the bar magnet **118** to an alarm position, the force of the spring being insufficient to overcome the magnetic attraction between the bar magnet **118** and the external bar magnet **34** or **96**. In this case, the electrically conductive strips **108** and **110** can be made of non-magnetic material, such as copper, etc.

Referring now to FIG. **9**, another alternative embodiment is illustrated in which an alarm unit **126** is provided in the form of a closed case **128** of plastic or the like. Spaced electrically conductive strips **130** and **132** are secured to the rear case wall **134** and a bar magnet **136** is loosely disposed within the case **128**. The bar magnet **136** is shaped rectangularly and is of such dimension as to be prevented from rotating within the case **128**. Thus the case **128** can be jostled and vibrated without significant change in the relative position of the bar magnet **136** within the case **128**.

In this embodiment the electrically conductive strips **130** and **132** are of nonmagnetic material such as copper and the like but a plate **138** of magnetic or paramagnetic material is pivotally connected by a hinge **140** to the top wall **142** of the case **128**. The plate **138** can thus be positioned adjacent the conductive strips **130** and **132** but insulated therefrom by the rear case wall **134** and attract the internal bar magnet **136** when the external bar magnet **34** or **96** is removed. When this occurs, the electrically conductive strips **130** and **132** are bridged by the bar magnet **136**, closing the alarm circuit. In this embodiment, the alarm circuit is disposed exteriorly of the case **128** as indicated by the lines **144** and **146** leading from the conductive strips **130** and **132** via openings such as **148** formed in the bottom case wall **150**. The alarm circuit can be similar to the circuit depicted in the unit of FIG. **3**, or the lines **144** and **146** can lead to a remote signaling device.

In operation, the magnetic or paramagnetic plate **138** is raised, as indicated by the arrow, and the unit **126** mounted, via adhesive strips **152** to a window to be protected in a manner similar to the arrangement illustrated in FIGS. **1** and **2** or FIGS. **5–7**. After alignment and completion of a magnetic circuit with an external bar magnet **34** or **96**, the plate **138** is swung into contact with the rear case wall **134** so as to thereby continuously urge the internal bar magnet **136** to a rearward, alarm position, but resisted by the force of the external bar magnet **34** or **96**. Upon removal of the external bar magnet **34** or **96**, the internal bar magnet **136** is propelled across the case **128** into bridging contact with the conductive strips **130** and **132**, closing the alarm circuit. To reset the alarm, the plate **138** is raised and the external bar magnet **34** or **96** is replaced drawing the internal bar magnet **136** back into its alarm set position.

Referring now to FIG. **10**, there is illustrated still another alternative embodiment of this invention in which an alarm unit **154** is provided which incorporates a microswitch **156** to close the circuit between a set of batteries **158** and a low voltage horn **160**. The unit **154** includes a case **162** having a rear wall **164** formed with an opening to accommodate the horn **160** and defining a compartment **168** for the batteries **158**. The microswitch **156** is spring loaded to close the alarm circuit but, when disposed in an alarm set position, has its button **170** depressed against the force of its spring **172** to open the alarm circuit. The microswitch **156** is carried by an aluminum support member **174** which is pivotally secured at its bottom end by a hinge **176** internally of the case **162** so as to pivot toward the rear case wall **164**.

The case **162** is open at its front end and is positioned against a windowpane **178**. A bar magnet **180** is secured to the forward surface of the support member **174** and the microswitch **156** is so positioned with respect to the magnet **180** that its button **170** is depressed by the windowpane **178** when the magnet **180** abuts the windowpane **178**.

In operation, the alarm unit **154** is situated with its open front confronting the windowpane **178** and its internal magnet **180** against the window pane **178** thereby opening the circuit on the microswitch as above described. An external bar magnet **182** is secured to a window screen **184** by means of a bolt **186** and is magnetically aligned with the internal bar magnet **180** so as to define a magnetic circuit therewith and bias the support member **174** to an alarm set position. Upon removal of the external bar magnet **182**, the internal bar magnet **180** is pulled rearwardly and downwardly by the force of gravity, releasing the spring loaded microswitch button **170**, thereby closing the alarm circuit to sound the horn **170** indicating an intrusion attempt.

Referring now to FIG. **11**, there is illustrated an alternative method of securing an external bar magnet **188** to a window screen **190** without requiring bolts or a barrier sheet. The bar magnet **188** is secured at its outer surface **192** to a bracket **194** which is formed with a channel **196** of U-shaped cross section. The bracket channel **196** is designed to fit within the win-

dow screen frame channel **198**, and, in turn, tightly receive the window screen frame **200**. By such means, the bar magnet **188** can be disposed against the window, between the window and screen **190** so that when the screen **190** is removed it carries the magnet **188** out of magnetic engagement with the alarm unit on the other side of the window.

I claim

1. A burglar alarm comprising, in combination:
an alarm signal generator;
a first magnetically attractable member movable between spaced positions of alarm set and alarm and continuously urged to said alarm position;
a second magnetically attractable member disposed in spaced proximity to said alarm set position;
at least one of said first and second members being magnetic, said first and second members cooperating to define a first magnetic circuit at said alarm set position whereby to maintain said first member at said alarm set position, said first and second members being relatively movable whereby to break said first magnetic circuit releasing said first member to move to said alarm position; and
circuit means connected to said signal generator comprising electrical contacts, spaced from one another and from said first member at said alarm set position, defining said circuit as open, said first member effecting electrical contact and bridging of said spaced contacts when said first member is moved to said alarm position thereby closing said circuit.

2. The invention according to claim **1** in which said first and second members are both magnetic.

3. The invention according to claim **1** in which said spaced contacts are nonmagnetic.

4. A burglar alarm comprising, in combination;
an alarm signal generator;
a first magnetically attractable member movable between spaced positions of alarm set and alarm;
a second magnetically attractable member disposed in spaced proximity to said alarm position;
at least one of said first and second members being magnetic, said first and second members cooperating to define a first magnetic circuit at said alarm set position whereby to maintain said first member at said alarm set position;
a third, magnetically attractive, member in proximity to said alarm position, at least one of said first and third members being magnetic, said first and third members cooperating to define a second magnetic circuit at said alarm position and thereby continuously urge said first member to said alarm position whereby upon breaking of said first magnetic circuit said first member is magnetically drawn to said third member; and
circuit means connected to said signal generator and cooperating with said first movable member for energizing said signal generator when said first movable member is at said alarm position;
said first and second members being relatively movable to break said first magnetic circuit whereby said first member is moved by said continuously urging means to said alarm position.

5. A burglar alarm comprising, in combination:
an alarm signal generator;
a first magnetically attractable member movable between spaced positions of alarm set and alarm, said alarm position being spaced below said alarm set position whereby said first member is continuously urged to said alarm position by the force of gravity;
a second magnetically attractable member disposed in spaced proximity to said alarm set position;
at least one of said first and second members being magnetic, said first and second members cooperating to define a first magnetic circuit at said alarm set position to maintain said first member at said alarm set position, said first and second members being relatively movable to break said first magnetic circuit releasing said first member to move to said alarm position; and
circuit means connected to said signal generator and cooperating with said first movable member for energizing said signal generator when said first movable member is at said alarm position.

6. A burglar alarm comprising, in combination:
an alarm signal generator;
a first magnetic member movable between spaced positions of alarm set and alarm and continuously urged to said alarm position;
a second magnetic member cooperating with said first magnetic member to define a magnetic circuit at said alarm set position to maintain said first magnetic member at said alarm set position, said first and second magnetic members being relatively movable to break said first magnetic circuit releasing said first magnetic member to move to said alarm position; and
circuit means connected to said signal generator comprising electrical contacts, spaced from one another and from said first magnetic member at said alarm set position, defining said circuit as open, said first magnetic member contacting and bridging said spaced contacts when moved to said alarm position to close said circuit.

7. The invention according to claim **6** including a third magnetic member spaced further than said electrical contacts from said first magnetic member and disposed to continuously urge said first magnetic member to said alarm position.

8. A burglar alarm comprising, in combination:
an alarm signal generator;
a first magnetic member movable between spaced positions of alarm set and alarm;
a second magnetic member;
said first and second magnetic members cooperating to define a magnetic circuit at said alarm set position to maintain said first member at said alarm set position; and
means for cooperating with said first magnetic member to define a second magnetic circuit at said alarm position and thereby continuously urge said first magnetic member to said alarm position whereby upon breaking of said first magnetic circuit said first magnetic member is magnetically drawn to said means, said means comprising circuit means connected to said signal generator and cooperating with said first magnetic member for energizing said signal generator when said first member is at said alarm position;

said first and second members being relatively movable to break said first magnetic circuit whereby said first member is moved by said continuously urging means to said alarm position.

9. The invention according to claim 8 in which said circuit means comprises a switch having a spring which loads the switch to close said signal generator circuit, said switch being carried by said first member against the force of its spring at said alarm set position whereby to open said signal generator circuit.

10. The invention according to claim 8 in which said means additionally comprises a third magnetic member in proximity to said alarm position.

11. A burglar alarm comprising, in combination:
an alarm signal generator;
a first magnetic member movable between spaced positions of alarm set and alarm, said alarm position being spaced below said alarm set position whereby said first member is continuously urged to said alarm position by the force of gravity;
a second magnetic member cooperating with said first magnetic member to define a first magnetic circuit at said alarm set position to maintain said first magnetic member at said alarm set position, said first and second members being relatively movable to break said first magnetic circuit and release said first member to move to said alarm position; and
circuit means connected to said signal generator and cooperating with said first magnetic member for energizing said signal generator when said first magnetic member is at said alarm position.

12. A burglar alarm, comprising:
an alarm signal generator;
a housing having spaced front and rear walls;
a first magnetically attractable member between said front and rear housing walls, spaced from one thereof and movable between spaced positions of alarm adjacent said one wall and alarm set adjacent the wall opposite said one wall;
a second magnetically attractable member disposed externally of said housing front wall, at least one of said first and second members being magnetic, said first and second members cooperating to define a first magnetic circuit at said alarm set position whereby to maintain said first member at said alarm set position;
magnetically attractive means in said housing adjacent said opposite wall for cooperating with said first magnetic member to define a second magnetic circuit at said alarm position and thereby continuously urge said first magnetic member to said alarm position whereby upon breaking of said first magnetic circuit said first member is magnetically drawn to said means, said means comprising circuit means connected to said signal generator and cooperating with said first member for energizing said signal generator when said first member is at said alarm position;
said second member being movable respective said housing front wall to break said first magnetic circuit whereby said first member is moved by said continuously urging means to said alarm position.

13. The invention according to claim 12 in which said first and second members are both magnetic.

14. The invention according to claim 12 in which said alarm position is adjacent said rear wall.

15. A burglar alarm system, comprising:
a glass window;
a window cover movably disposed adjacent one side of said glass window and covering substantially all of the area of said glass window on said one side;
a first magnetically attractable member on a side of said glass window opposite said first side and occupying a first minor portion only of the region of said glass window on said opposite window side;
a second magnetically attractable member on said window cover adjacent said first window side and occupying a second minor portion only of the region of said window cover, said first and second minor portions at least overlapping;
at least one of said first and second members being magnetic, said first and second members cooperating to define a magnetic circuit;
alarm means on said opposite window side responsive to a break in said magnetic circuit whereby to generate an alarm signal; and
means for connecting said second member to said window cover for movement therewith whereby movement of said window cover effects a break in said magnetic circuit.

16. The invention according to claim 15 wherein said window cover comprises a window screen having screen material defining said second minor portion.

17. A burglar alarm system, comprising:
a glass window;
a flat transparent member movably disposed adjacent one side of said window;
a first magnetically attractable member on a side of said window opposite said first side and occupying a first minor portion only of the region of said glass window on said opposite window side;
a second magnetically attractable member on said first window side and occupying a second minor portion only of the region of said second window side, said first and second minor portions at least overlapping;
at least one of said first and second members being magnetic, said first and second members cooperating to define a magnetic circuit;
alarm means on said opposite window side responsive to a break in said magnetic circuit whereby to generate an alarm signal; and
means for connecting said second member to said transparent member for movement therewith whereby movement of said transparent member effects a break in said magnetic circuit.

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