

18



Europäisches Patentamt

European Patent Office

Office européen des brevets

11 Publication number:

0 149 863
B1

12

EUROPEAN PATENT SPECIFICATION

45 Date of publication of patent specification: **19.10.88**

51 Int. Cl.⁴: **G 08 B 13/06**, G 08 B 13/12

21 Application number: **84201749.3**

22 Date of filing: **28.11.84**

54 **A device for protecting against burglary.**

30 Priority: **28.11.83 NL 8304082**

43 Date of publication of application:
31.07.85 Bulletin 85/31

45 Publication of the grant of the patent:
19.10.88 Bulletin 88/42

84 Designated Contracting States:
AT BE DE FR GB IT SE

50 References cited:
FR-A-1 498 349
US-A-2 701 282

73 Proprietor: **Sevriens, Leo**
Troelstrakade 763
NL-2531 AT The Hague (NL)

72 Inventor: **Sevriens, Leo**
Troelstrakade 763
NL-2531 AT The Hague (NL)

74 Representative: **Veldhuijsen, Frans (NL)**
Nederlandsch Octrooibureau Johan de Wittlaan
15 P.O. Box 29720
NL-2502 LS 's-Gravenhage (NL)

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European patent convention).

Courier Press, Leamington Spa, England.

EP 0 149 863 B1

Description

The invention relates to a device for protecting against burglary, of the type, with which a bolt catching case mounted on or in a frame and cooperating with a lock in or on a hinged panel, is connected with an active element by means of a core line protected by an outer sheath, said core line extending through a guide opening in said bolt catching case towards a fixed anchoring location, in such a way, that in case of a displacement of the bolt catching case as a result of an attempt at burglary the active element will be moved to close an alarm circuit.

Such a device is disclosed in NL-8301465 (published 16/11/84). With this device the core line and the sheath together form a bowden cable. In case of an attempt at burglary the core line will follow the displacement of the bolt catching case, while the sheath will remain stationary. Thus there will be a displacement of the core line within the stationary sheath, due to which the active element will be actuated. The advantage of this type of device is to be seen in that the active element and consequently the alarm will already enter into operation in the initial stage of the attempt at burglary, i.e. when the damage is still limited in extent.

The invention aims at further improving this device. According to the invention this aim is achieved in that the core line is arranged to hold the active element against spring action in an inoperative position, an auxiliary element being mounted on the frame adjacent the guide opening for the core line, said auxiliary element cooperating — in case of a forced displacement of the bolt catching case, with the portion of the bolt catching case delimiting said guide opening so as to perform a scissor action onto said core line.

In this manner a light displacement of the bolt catching case will cause the normally tight core line to be cut through, so that the active element is permitted to enter into its operative position. In comparison with the device above referred to the device according to the invention enables the realization of a substantially higher degree of sensitiveness, so that the damage caused until the moment of signalling will be reduced to a minimum.

After an attempt at burglary the installing of a new core line can be realized in a simple manner.

It is to be remarked that it has been known to signal burglary or theft by making use of a line which is cut through as a result of the burglary or theft respectively. Examples of this are disclosed in US patent specifications 2.701.282 and 4.340.007. These cases, however, concern the signalling of a successful attempt at burglary or theft respectively, while the invention aims at defeating the actual burglary by an early signalling of the attempt at it.

The invention will be hereinafter further explained by way of example with reference to the drawing.

Fig. 1 is a perspective view of a frame post

having a bolt catching case mounted on it, which is provided with the device according to the invention in a first embodiment;

Fig. 1A is a vertical cross-section through the upper wall of the bolt catching case and the device according to the invention, positioned thereabove;

Fig. 2 is a perspective view of a frame post with a bolt catching plate embedded therein, which is provided with the device according to the invention in a second embodiment and

Fig. 3 shows a perspective view of the bolt catching plate in Fig. 2, thereby illustrating the working of the device according to the invention.

In Fig. 1 a door frame post is indicated at 1 and has a bolt catching case 2 mounted on it. The bolt catching case 2 cooperates with a lock 3 indicated by dash-dotted lines in the drawing and mounted on the inner side of a door 4 which is also and partially indicated by dash-dotted lines.

In case of an attempt at burglary, i.e. by putting a jemmy into the slit between the door 4 and the abutment face 1a of the frame 1, a force P directed away from the abutment face 1a will be exerted to the bolt catching case 2 via the bolt (not shown in the drawing) extending from the lock 3 into said bolt (not shown in the drawing) extending from the lock 3 into said bolt catching case 2. This may cause the fastening screws 5 — especially in case of a relatively short length of the latter, to be pulled out of the frame wood. As a consequence of this the bolt catching case 2 will be lifted from the frame post 1. It is the object of the invention to signal such an attempt at burglary in a very early stage. In accordance with the invention and with reference to the embodiment of Fig. 1 the bolt catching case 2 is connected to a tight flexible line 6, which extends through a sheath 6a fastened onto the frame wood and passes through a guide opening 7 in the upper wall 2a of the case 2 towards a fixed anchoring location 8 within the bolt catching case 2. The device according to the invention further comprises a plate-like element 9 bearing on the upper wall 2a of the case 2 and having a bent flange portion 9a screwed on the frame post 1. The element 9 has a slot-like passage way for the line 6 extending parallel to the plane of the closed door. The longitudinal slot edge 11 turned away from the frame post 1 extends towards the edge portion indicated at 7a at a distance corresponding to the thickness of the line 6. The longitudinal edge 11 is sharpened and constitutes the stationary part of a scissor, the other part of which is constituted by the marginal portion 7a delimiting the guide opening 7.

The flexible line 6 is connected, at its end turned away from the case 2, to the "active" element 13, which is making part of an alarm device not further shown in the drawing. In the example of Fig. 1 said element is constituted by a contact lever 13 cooperating with a fixed contact 14. The contact lever 13 and the fixed contact 14 are making part of an electric alarm circuit. The line 6 is kept tight by a spring 15 which pulls the lever 13. Under normal conditions, i.e. with tight line 6,

the latter keeps the contact lever 13 against the action of the spring 15 in its opened position relative to the fixed contact 14. Assuming now, starting from the condition above referred to, an attempt at burglary causing a force P to be exerted to the bolt catching case in a direction turned away from the frame post 1, so that the bolt catching case will be subjected to a displacement in the same direction, the line 6 will be cut through as a result of the scissor action of the edge 11 and the edge portion 7a. Such scissor action will already take place as a response to a very slight movement of the edge portion 7a towards the fixed scissor part 11.

It will be clear, that a similar element could be mounted on the underside of the bolt catching case, in which case the line would have to be extended to a fixed anchoring location below the bolt catching case. Such an embodiment would have the advantage, that the line would be cut through on that side of the bolt catching case (the underside or upperside) where the displacement relative to the frame post 1 is initiated first.

In Fig. 2 and 3, showing a second embodiment of the device according to the invention, those parts, which correspond with similar parts in Fig. 1 and 1A, are indicated by the same reference numbers.

In the second embodiment the bolt catching case 2' has been embedded into the frame post 1. The guide opening for guiding the flexible line 6 is constituted by an edge portion of the bolt catching plate embedded in the respective plate of the frame post 1, said edge portion being bent to form an eyelet 16. The eyelet 16 cooperates in a hinge-like manner with an upper and a lower eyelet 17, which are similarly formed at an edge of an element 9' which is fastened by screws on the frame. Preferably the upper and lower edges of the eyelet 16, as well as the opposite edges of the eyelets 16, are sharpened.

Under normal conditions (vide Fig. 2) the eyelets 16 and 17 are positioned in vertical alignment one to another and the flexible line is guided through the passage formed by said eyelets towards the fixed anchoring location 8 which in this case may be simply formed by a knot at the lower end of the flexible line 6.

In case of an attempt at burglary a displacement of the bolt catching plate 2' relative to the stationary element 9' will take place, as a result of which the sharp edges of the eyelet 16 will slide in their respective planes relative to the opposite sharp edges of the eyelets 17, so that a scissor action is taking place which causes a cutting through of the flexible line.

In both of the embodiments described hereinabove the cutting through of the line 6 will permit the lever 13 to close under the action of the spring 15, so that the alarm circuit is allowed to enter into operation.

Claims

1. A device for protecting against burglary, of

the type, with which a bolt catching case (2) mounted on or in a frame (1) and cooperating with a lock (3) in or on a hinged panel, is connected with an active element (13) by means of a core line (6) protected by an outer sheath (6a), said core line extending through a guide opening (7) in said bolt catching case towards a fixed anchoring location (8), in such a way, that in case of a displacement of the bolt catching case as a result of an attempt at burglary the active element will be moved to close an alarm circuit (14), characterized in that the core line is arranged to hold the active element against spring (15) action in an inoperative position, an auxiliary element (9) being mounted on the frame adjacent the guide opening (7) for the core line (6), said auxiliary element cooperating, in case of a forced displacement of the bolt catching case, with the portion (7a) of the bolt catching case delimiting said guide opening so as to perform a scissor action onto said core line.

2. A device according to claim 1 characterized in that the auxiliary element is formed by a plate member (9) bearing on the guide opening containing wall (2a) of the bolt catching case (2), which plate member is provided with a slot (11) through which the core line (6) may pass, said slot extending substantially parallel to the plane of the closed panel and having one of its edges (11) which is turned away from the frame, formed as a cutting edge, said cutting edge forming the stationary part of a scissor, the other part of which is constituted by an edge portion (7a) delimiting the guide opening (7) opposite the frame.

3. A device according to claim 1, in which the bolt catching case (2') is embedded in the frame post (1), characterized in that the guide opening is formed by an edge portion of the bolt catching plate which is formed into an eyelet (16), cooperating with at least one corresponding eyelet (17) of the auxiliary element (9') on the frame, in such a way, that the opposite edges of said eyelets will, in case of an attempt at burglary, slide one relative to the other and thus apply a scissor action to the line.

Patentansprüche

1. Einbruchsschutzvorrichtung mit einem auf oder in einem Rahmen (1) befestigten und mit einem in oder an einem schwenkbaren tafelförmigen Element befindlichen Schloß (3) zusammenwirkenden Schließblech (2), das mit einem Wirkelement (13) über eine Seilseele (6) verbunden ist, die durch eine Außenhülle (6a) geschützt ist und durch eine in dem genannten Schließblech vorgesehene Führungsöffnung (7) zu einer ortsfesten Verankerung (8) so geführt ist, daß bei einer Verrückung des Schließbleches als Folge eines Einbruchversuchs das Wirkelement betätigt wird und dadurch einen Alarmschaltkreis (14) schließt, dadurch gekennzeichnet, daß die Seilseele (6) das Wirkelement gegen die Wirkung einer Feder (15) in inaktiver Stellung hält, daß ein Zusatzteil (9) auf dem Rahmen neben der

Führungsöffnung (7) für die Seilseele (6) befestigt ist, und daß das genannte Zusatzteil im Falle einer erzwungenen Verrückung des Schließbleches mit dem die genannte Führungsöffnung begrenzenden Abschnitt (7a) des Schließbleches ähnlich einer Schere zusammenwirkt, um die genannte Seilseele zu durchtrennen.

2. Vorrichtung nach Anspruch 1, dadurch gekennzeichnet, daß das Zusatzteil ein Blechteil (9) ist, das auf der die Führungsöffnung aufweisenden Wandung (2a) des Schließbleches (2) aufliegt und einen Schlitz (11) aufweist, der einen Durchtritt für die Seilseele (6) bildet, sich im wesentlichen parallel zur Ebene des geschlossenen tafelförmigen Elementes erstreckt und seinen von dem Rahmen abgewandten Schlitzrand (11) als Schneidkante ausgebildet hat, die den ortsfesten Teil einer Schere bildet, deren anderer Scherenteil durch einen Randabschnitt (7a) gebildet wird, der die Führungsöffnung (7) gegenüber dem Rahmen begrenzt.

3. Vorrichtung nach Anspruch 1, bei der das Schließblech (2') im Rahmenpfosten (1) eingelassen ist, dadurch gekennzeichnet, daß die Führungsöffnung durch einen als Öse (16) geformten Randabschnitt des Schließbleches gebildet ist, wobei diese Öse mit zumindest einer entsprechenden Öse (17) des Zusatzteils (9') auf dem Rahmen so zusammenwirkt, daß die sich gegenüberliegenden Ränder der genannten Öse im Falle eines Einbruchversuchs gegeneinander eine Relativverschiebung ausführen und dadurch das Seil durchtrennen.

Revendications

1. Dispositif anti-effraction du type avec lequel une gâche (2) de réception du pêne, montée sur ou dans un cadre (1) et coopérant avec un verrou (3) monté dans ou sur un panneau monté sur charnière, est reliée à un élément actif (13) au moyen d'un tirant (6) protégé par une gaine extérieure (6a), ledit tirant passant à travers une ouverture de guidage (7), prévue dans ladite

gâche de réception du pêne, en direction d'un point d'ancrage fixe (8), de façon telle que, en cas de déplacement de la gâche de réception du pêne par suite d'une tentative d'effraction, l'élément actif sera déplacé pour fermer un circuit d'alarme (14), caractérisé en ce que le tirant est agencé pour maintenir l'élément actif en position non opérationnelle, en agissant contre l'action d'un ressort (15), un élément auxiliaire (9) étant monté sur le cadre près de l'ouverture de guidage (7) prévue pour le tirant (6), ledit élément auxiliaire coopérant, en cas de déplacement forcé de la gâche de réception du pêne, avec la portion (7a) de ladite gâche de réception du pêne qui délimite ladite ouverture de guidage, de façon à exercer une action de cisaillement sur ledit tirant.

2. Dispositif selon la revendication 1, caractérisé en ce que l'élément auxiliaire est formé par un élément du type plaquette (9) portant contre la paroi (2a) de la gâche (2) de réception du pêne qui contient l'ouverture de guidage, lequel élément formant plaquette est pourvu d'une fente (11) à travers laquelle peut passer le tirant (6), ladite fente s'étendant sensiblement parallèlement au plan du panneau fermé et présentant l'un de ses bords (11), côté opposé au cadre, formé en bord coupant, ledit bord coupant formant la partie fixe d'une paire de ciseaux dont l'autre partie est constituée par une portion de bordure (7a) qui délimite l'ouverture de guidage (17) en face du cadre.

3. Dispositif selon la revendication 1, dans lequel la gâche (2') de réception du pêne est lardée dans le montant du cadre (1), caractérisé en ce que l'ouverture de guidage est formée par une portion de bordure de la plaquette de réception du pêne auquel on a donné la forme d'un oeillet (17), coopérant avec au moins un oeillet correspondant (17) de l'élément auxiliaire (9') du cadre, de façon telle que, en cas de tentative d'effraction, les bords opposés desdits oeillets vont glisser l'un par rapport à l'autre et exercer ainsi une action de cisaillement sur le tirant.

5

10

15

20

25

30

35

40

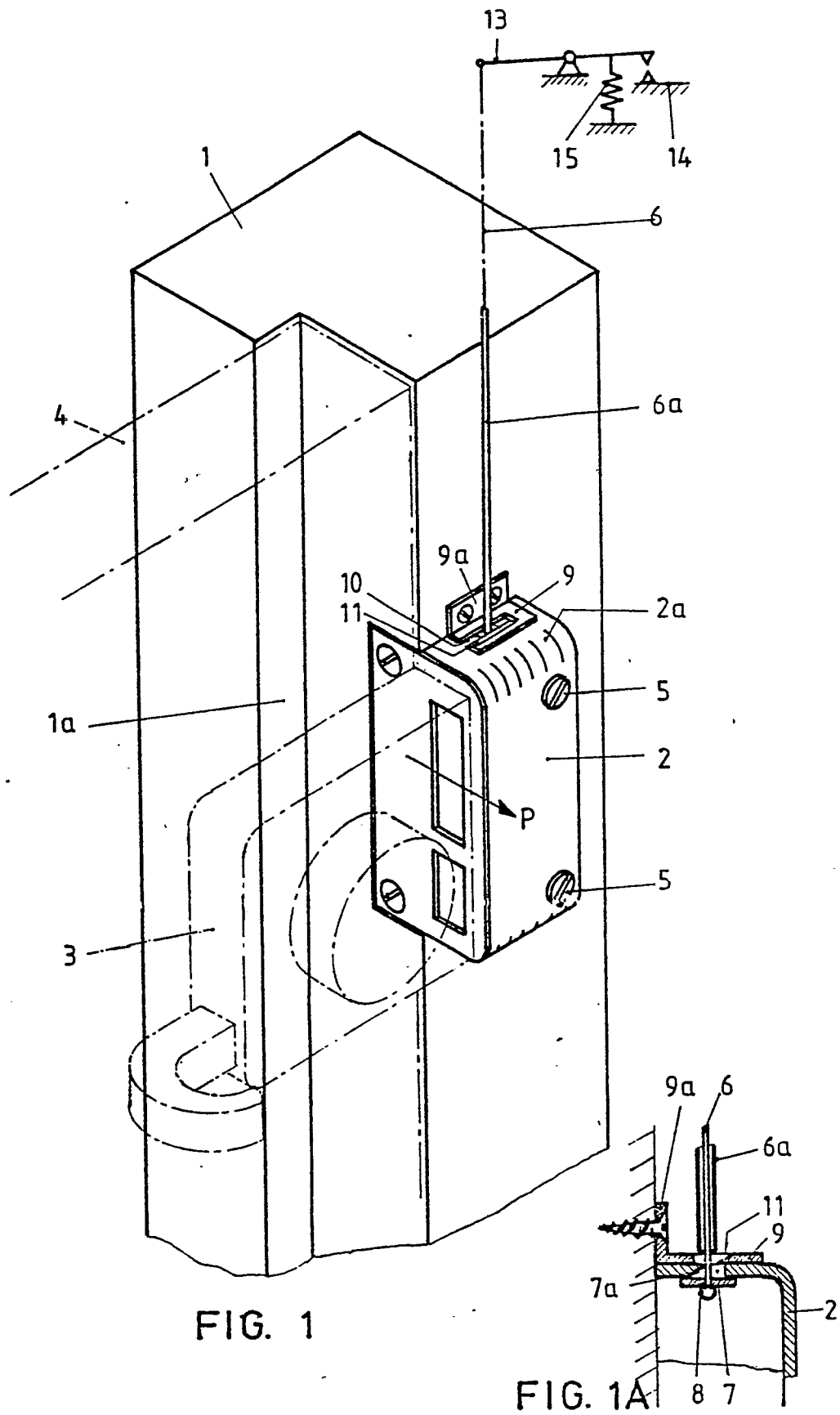
45

50

55

60

65



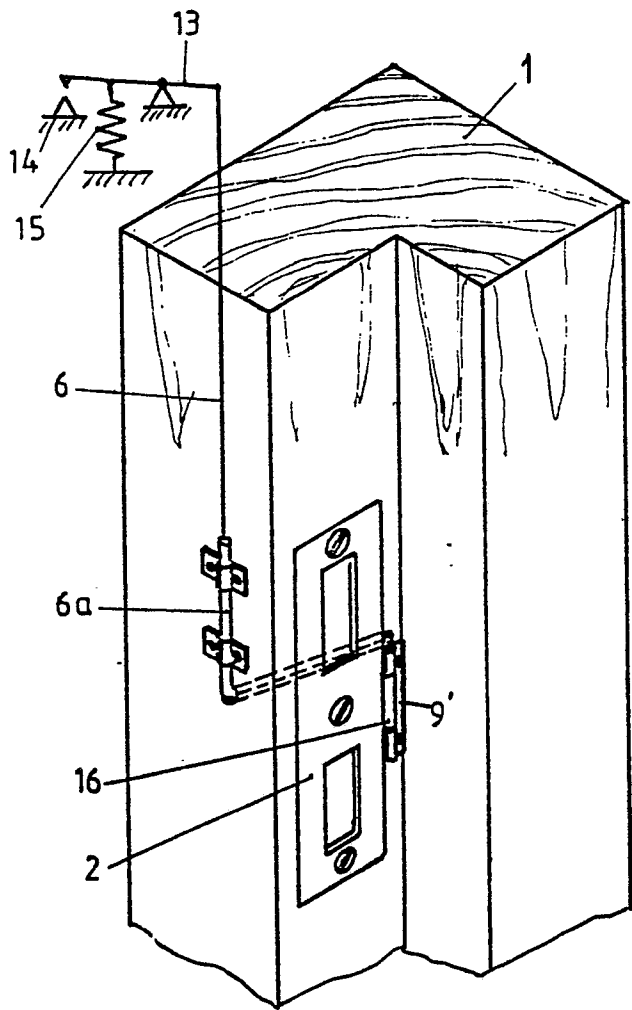


FIG. 2

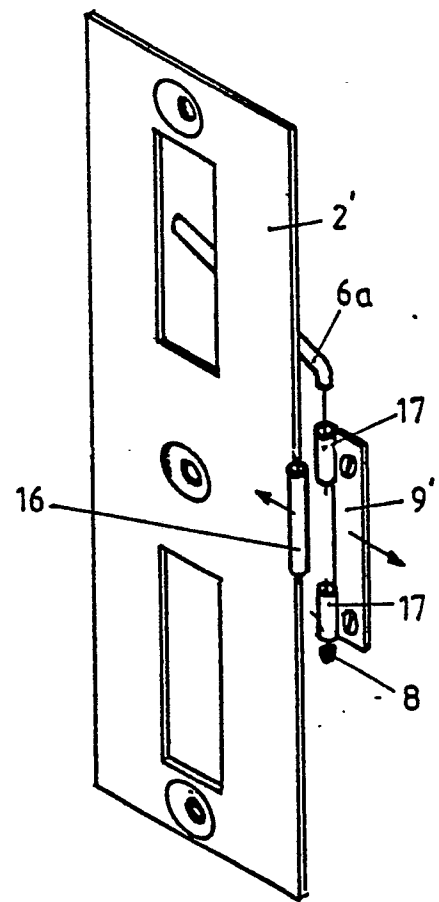


FIG. 3