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(71) Applicant: **Sevriens, Leo**
Troelstrakade 763
NL-2531 AT The Hague(NL)

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

(74) Representative: **Boelsma, Gerben Harm, Ir. et al,**
Octrooibureau Polak & Charlouis Laan Copes van
Cattenburch 80 P.O. Box 80540
NL-2508 GM The Hague(NL)

(54) **A device for projecting against burgling.**

(57) 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 rock 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 lock 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, whereby 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.

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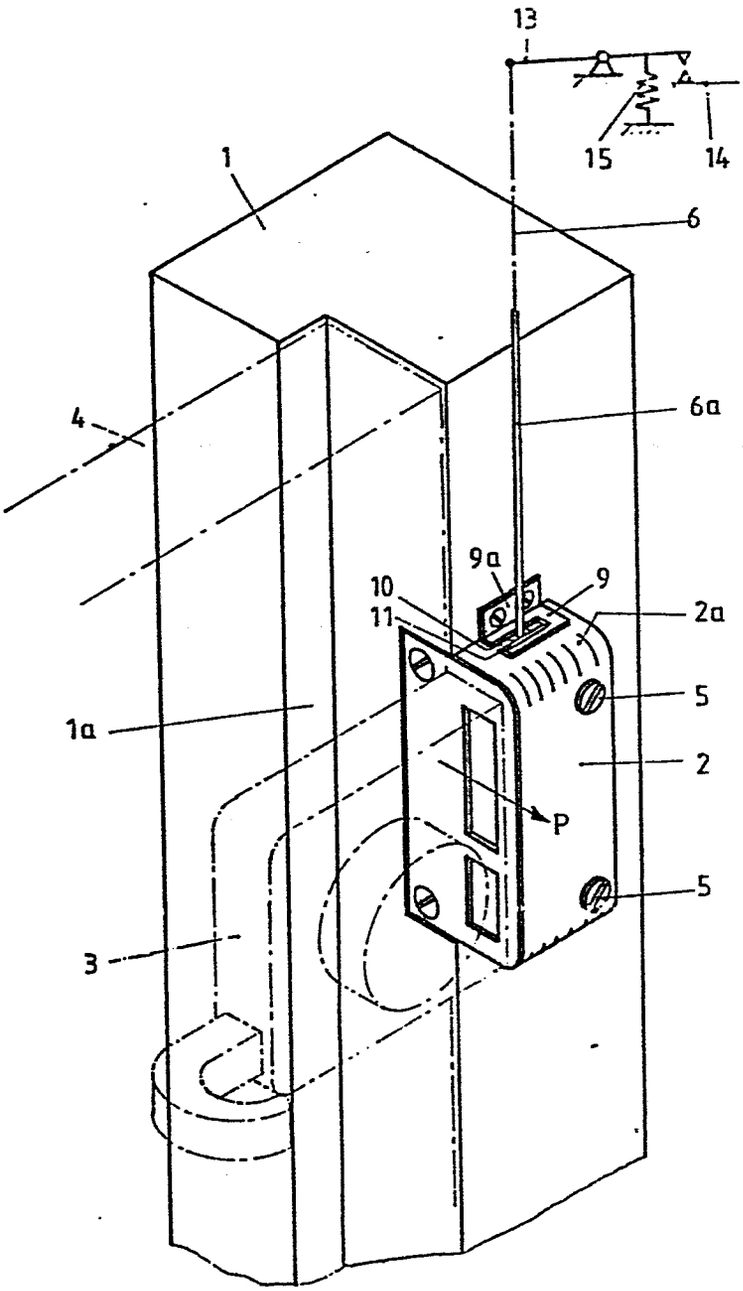

FIG. 1

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Title: A device for protecting against burglary.

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 rock 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 lock 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. 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 slight 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 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. Asuuming 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 ambodiment 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.

C L A I M S

1. 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 rock 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 lock 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, characterized 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.

2. A device according to claim 1 characterized in that the auxiliary element is formed by a plate member bearing on the guide opening containing wall of the bolt catching case, which plate member is provided with a slot through which the core line may pass said slot extending substantially parallel to the plane of the closed panel and having one of its edges 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 delimiting the guide opening opposite the frame.

3. A device according to claim 1, in which the bolt catching case is embedded in the frame post, characterized in that the guide opening is formed by an edge portion of the bolt catching plate which is formed into an eyelet, cooperating with at least one corresponding eyelet of the auxiliary element 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.

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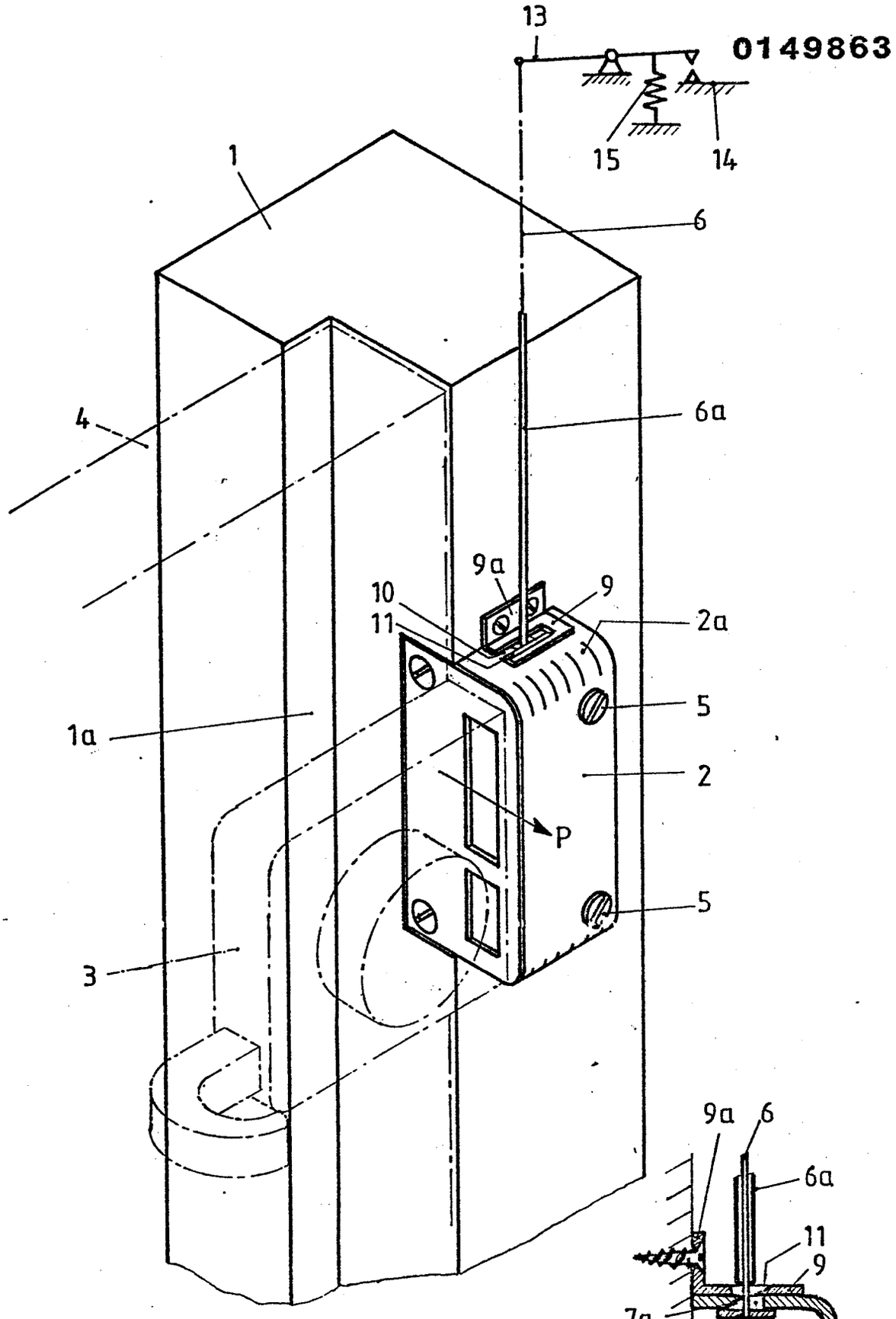

FIG. 1

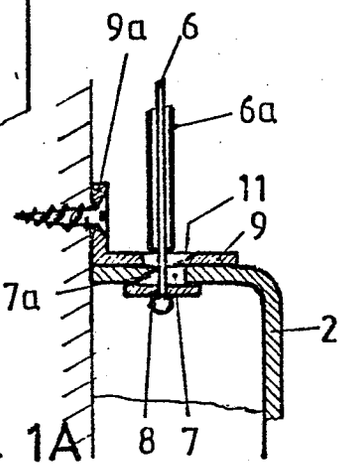

FIG. 1A

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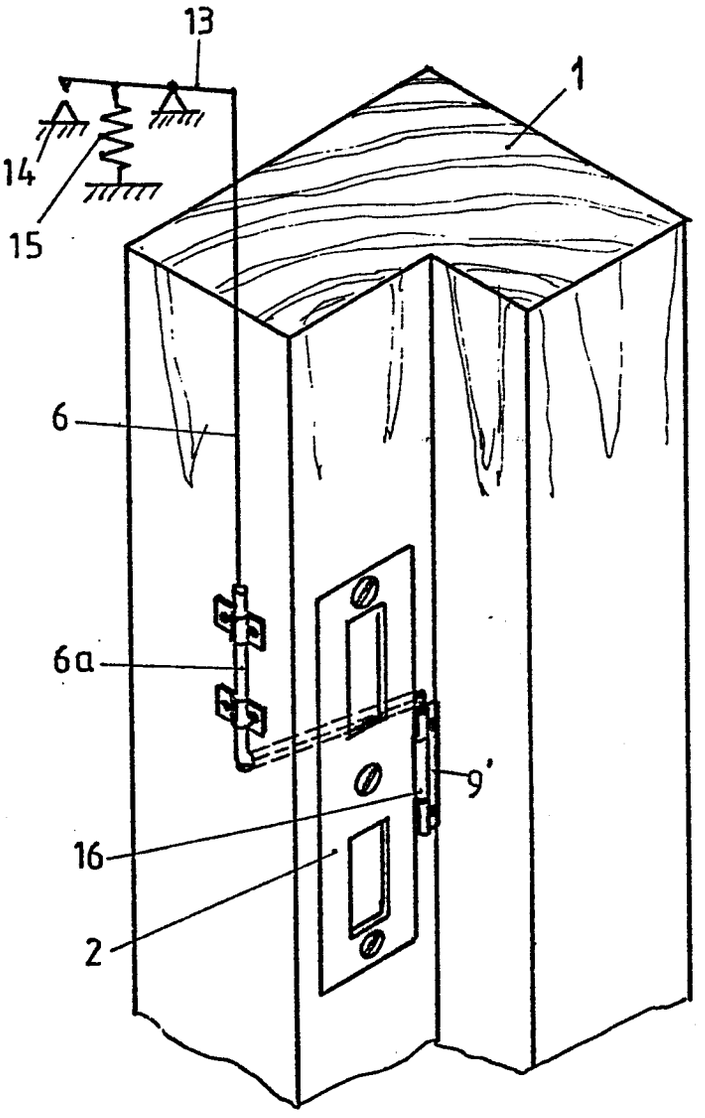

FIG. 2

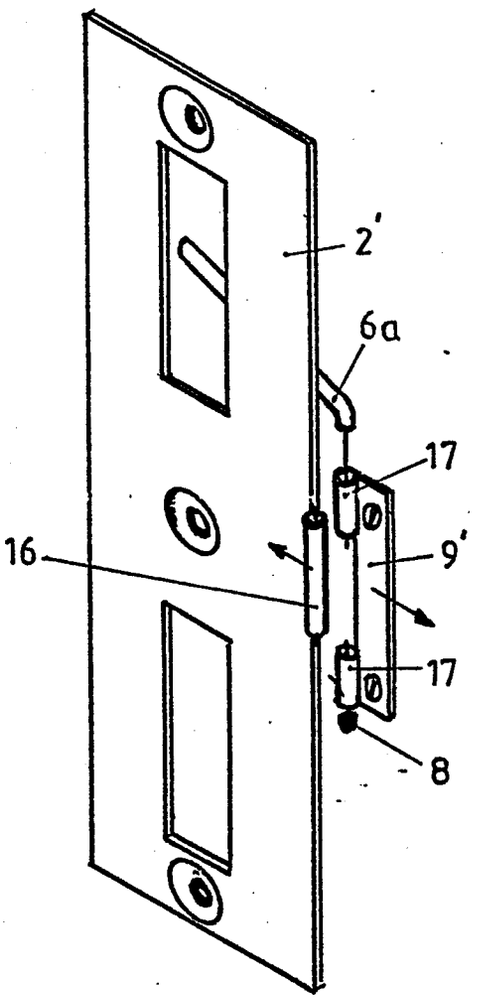

FIG. 3