



EUROPEAN PATENT SPECIFICATION

Date of publication of patent specification :
03.06.92 Bulletin 92/23

Int. Cl.⁵ : **E06B 5/10**

Application number : **88910140.8**

Date of filing : **24.11.88**

International application number :
PCT/NL88/00052

International publication number :
WO 89/04907 01.06.89 Gazette 89/12

PROTECTION DEVICE FOR A WINDOW OR DOOR.

Priority : **24.11.87 NL 8702818**

Date of publication of application :
03.10.90 Bulletin 90/40

Publication of the grant of the patent :
03.06.92 Bulletin 92/23

Designated Contracting States :
AT BE CH DE FR GB IT LI LU NL

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EP 0 389 532 B1

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Description

The invention relates to a protection device for a panel, such as a window or a door, movable with respect to a frame, comprising two profiles each having at least two longitudinal strips, of said profiles at least one being connectable with a longitudinal strip to the frame, the other with a longitudinal strip to the panel, such that the other longitudinal strips lie free, the longitudinal strips of a first profile extending at an angle with respect to each other such that in the closed position of the panel they cover adjacent areas of frame and panel extending under the same angle with respect to each other, and one of its longitudinal strips being connectable to the one area covered by it, whilst the freely extending longitudinal strips of the second profile extend parallel to and at a distance from the other area such that said strip in the closed position of the panel covers the freely extending longitudinal strips of the first profile.

Such a protection device is known from FR-A-2,590,928. The second profile described therein is a very complicated section being U-shaped at its extremity to receive the first profile. A part of the second profile extends in the gap between the door and the frame. This means that if such a protection device has to be arranged the size of the door and the frame has to be adjusted. This is one of the reasons that the protection device according to the French patent specification was never successful. It is not possible to later provide the protection device and the protection design had to be such that the protection device could be incorporated. If the door is designed to incorporate the protection device it has to use it because otherwise large gaps would occur.

The invention aims to obviate these drawbacks. This is realized in that the second profile comprises two parallel longitudinal strips which are interconnected by an intermediate strip extending inclined at an obtuse angle with respect to the two longitudinal strips. With the characterizing features according to the invention it is no longer necessary to adapt the design of the panel-frame structure. Because of this at any time the protection device according to the invention can be arranged.

From GB-A-1,242,245 a protection device is known which cannot be mounted afterwards without large efforts.

According to a further preferred embodiment the first profile to be attached to the frame is L-shaped, such that in the closed position of the panel its freely extending longitudinal strip is present between the panel and the freely extending longitudinal strip of the second profile to be mounted to the panel. This embodiment uses simple strips which can be easily attached to the frame, panel respectively.

To give further protection the first profile can be U-shaped, such that the freely extending strip of the

second profile is received between the legs of the U. This makes it even more difficult to introduce tools for unauthorized opening of the panel.

The sections preferably extend over the entire clear span of a frame such as the height of the post and/or the width of a sill.

The invention does also relate to a frame with a panel movable with respect to it, such as a door or window, being provided with a protection device as described above.

The invention will be further elucidated referring to some examples, not all of them falling within the scope of protection of the invention, as defined by the appended claims.

Figure 1 shows a cross section through a first embodiment of the protection device according to the invention, applied to a pivotable window or a pivotable door.

Figure 2 shows an example of a protection device, not falling within the scope of the appended claims.

Figure 3 shows a further example of a protection device, not falling within the scope of the appended claims.

Figure 4 shows a second embodiment of the invention.

Figure 5 shows still a further example of a protection device, not falling within the scope of the appended claims.

Figure 6 shows an embodiment of the protection device according to the invention applied to a shiftable door.

Figure 7 shows still a further example of a protection device, not falling within the scope of the appended claims.

In figure 1 a pivotable door (or window) 1 is shown, which by means of hinges 2 is connected to a door case 3, 4. At the outer side of door 1 and frame post 4 the protection device 5 has been applied, comprising a turned section 6 or angular profile mounted upon the door 1 and a section 7 mounted upon the frame post 4.

Leg 8 of section 6 is attached e.g. by screws to door 1; leg 9 of section 6 extends perpendicularly to leg 8 and in closed position of door 1 extends closely along frame post 4. Section 6 covers in this way the seam between door 1 and frame post 4.

Moreover on frame post 4 is connected leg 10 of section 7; this section 7 has moreover a leg 11, which extends parallel to leg 10, but is displaced with respect to it. The two legs are interconnected by the inclined portion 12.

In closed position of door 1 leg 11 of section 7 now covers the leg 9 of section 6, leg 11 extending therewith far into the inner corner between legs 8 and 9 of section 10. Said configuration has the advantageous result in closed position of door 1, that in the seam between leg 11 and section 6 in the said inner corner

there is little to no space to insert e.g. a crow-bar. If this would be tried nevertheless, the crow-bar has to extend closely along the door 1 more or less parallel to it. Due to this the space to move is very restricted, so that no lever function of a value worth mentioning can be generated with the crow-bar

In figure 2 another protection device is shown in which the section 13 attached to the frame post 4 differs from the one of figure 1. This section 13 as well as section 6 is an angular profile having its leg 14 connected to the outer side of the frame post 4 and its leg 15 extending towards section 6 and covering its leg 9.

Figure 3 shows again another protection device in which a U-shaped section 16 is connected to the frame post. Through holes 17 in leg 18 the screws can be fastened by means of which leg 19 is attached. An advantage of said device is that said screws in the closed position of the door are no longer accessible so that they cannot be removed by unauthorized persons.

In figure 4 an embodiment of the invention is shown in which a U-shaped section 20 is attached upon door 1. An advantage of said embodiment is that the connecting screws of said section extending through the base 21 of said section are not accessible in the closed position of the door. This U-section 20 may cooperate with a section 11 as shown in figure 1.

Figure 5 shows a protection device in which on door 1 as well as on frame post 4 a U-section 22 and 23, respectively, of the same type is connected. In the closed position of the door the connecting screws of both section 22, 23 therewith are not accessible. A further advantage is that the two sections correspond. IF both are provided with the same holes for attachment (such as e.g. holes 24 as well as hole in the base 25 and in leg 26) the protection device can be composed from one and the same section.

Finally in figure 6 a protection device according to the invention is applied to a shiftable door 27, which is shiftable with respect to frame 28. Leg 29 of angular section 30 is mounted on frame 28. Leg 31 of section 32 is mounted on shiftable door 27. Leg 33 of section 29 extends closely along shiftable door 27 and in closed position is covered by leg 34 of section 32. With this application as well there is too little space between the sections 32 and 30 to insert a crow-bar.

In the same way as the protection device of figure 5 the protection device at a shiftable door may comprise two U-shaped sections 35, 36 as shown in figure 7. Bottom 37 of section 36 therewith is connected to frame 28 and leg 38 of section 35 is attached to shiftable door 27. With this device the connecting screws are not accessible in closed position of the panel either.

Claims

1. Protection device for a panel (1,27), such as a window or a door, movable with respect to a frame (3,4,28), comprising two profiles (6,7,20,30,32) each having at least two longitudinal strips (8,9,10,11,21,29,31,33,34), of said profiles at least one (7,30) being connectable with a longitudinal strip (10,29) to the frame (4,28), the other (6,20,32) with a longitudinal strip (8,21,31) to the panel, such that the other longitudinal strips (9,11,33,34) lie free, the longitudinal strips (8,9,21,29,33) of a first profile (6,20,30) extending at an angle with respect to each other such that in the closed position of the panel they cover adjacent areas of frame and panel extending under the same angle with respect to each other, and one of its longitudinal strips being connectable to the one area covered by it, whilst the freely extending longitudinal strips (11,34) of the second profile (7,32) extend parallel to and at a distance from the other area such that said strip in the closed position of the panel covers the freely extending longitudinal strips of the first profile, characterized in that the second profile (7,32) comprises two parallel longitudinal strips (10,11,31,34) which are interconnected by an intermediate strip (12) extending inclined at an obtuse angle with respect to the two longitudinal strips (10,11,31,34) (Fig. 1,4,6).

2. Protection device according to claim 1 for a panel which is shiftable with respect to the frame, characterized in that the first profile (30) to be attached to the frame (28) is L-shaped such that in closed position of the panel (27) its freely extending longitudinal strip (33) is present between the panel (27) and the freely extending longitudinal strip (34) of the second profile (32) to be mounted to the panel.

3. Protection device according to claim 1, characterized in that the first profile (20) is U-shaped, such that the strips of the U are directed towards the freely extending strip (11) of the second profile and receive this strip thereinbetween.

4. Protection device according to one or more of the preceding claims, characterized in that the sections extend throughout the complete clear length of a frame portion.

5. Frame (3,4,28) with a panel (1,27) movable with respect to it, such as a door or window, characterized in that a protection device according to one of the preceding claims is mounted upon the frame and panel.

Patentansprüche

1. Schutzvorrichtung für ein Paneel (1,27) wie ein Fenster oder eine Tür, welche Schutzvorrichtung in bezug auf einen Rahmen (3,4,28) bewegbar ist und zwei Profile (6,7,20,30,32) umfasst, von denen jedes

zumindest zwei Längsflansche (8,9,10,11,21,29,31, 33,34) aufweist, wobei zumindest eines dieser Profile (7,30) durch einen Längsflansch (10,29) mit dem Rahmen (4,28) und das andere (6,20,32) durch einen Längsflansch (8,21,31) mit dem Paneel verbindbar ist, derart, dass die anderen Längsflansche (9,11, 33,34) freistehen, wobei die Längsflansche (8,9,21, 29,33) eines ersten Profils (6,20,30) sich im Winkel zueinander erstrecken, derart, dass sie in der geschlossenen Lage des Paneels benachbarte, sich im gleichen Winkel zueinander erstreckende Flächen des Rahmens und des Paneels überdecken, und wobei einer der Längsflansche mit der davon überdeckten Fläche verbindbar ist, während sich die sich freistehend erstreckenden Längsflansche (11,34) des zweiten Profils (7,32) parallel zu und im Abstand von der anderen Fläche erstrecken, derart, dass der genannte Flansch in der geschlossenen Lage des Paneels die sich freistehend erstreckenden Längsflansche des ersten Profils überdeckt, dadurch gekennzeichnet, dass das zweite Profil (7,32) zwei parallele Längsflansche (10,11,31,34) umfasst, die untereinander durch einen Zwischenflansch (12) verbunden sind, der sich schräg im stumpfen Winkel in bezug auf die beiden Längsflansche (10,11,31,34) erstreckt (Fig. 1,4,6).

2. Schutzvorrichtung nach Anspruch 1 für ein Paneel, das in bezug auf einen Rahmen versetzbar ist, dadurch gekennzeichnet, dass das erste auf den Rahmen (28) zu befestigende Profil (30) L-förmig ausgebildet ist, derart, dass sich in der geschlossenen Lage des Paneels (27) sein sich freistehend erstreckender Längsflansch (33) zwischen dem Paneel (27) und dem sich freistehend erstreckenden Längsflansch (34) des zweiten auf das Paneel zu montierenden Profils (32) befindet.

3. Schutzvorrichtung nach Anspruch 1, dadurch gekennzeichnet, dass das erste Profil (20) U-förmig ausgebildet ist, derart, dass die Flansche des U zum sich freistehend erstreckenden Längsflansch (11) des zweiten Profils hin gerichtet sind und diesen Flansch zwischen sich aufnehmen.

4. Schutzvorrichtung nach einem oder mehreren der vorangehenden Ansprüche, dadurch gekennzeichnet, dass sich die Abschnitte über die ganze freistehende Länge eines Rahmenteils erstrecken.

5. Rahmen (3,4,28) mit einem in bezug auf diesen bewegbaren Paneel (1,27) wie ein Fenster oder eine Tür, dadurch gekennzeichnet, dass eine Schutzvorrichtung nach einem der vorangehenden Ansprüche auf den Rahmen und das Paneel montiert ist.

comprenant deux profils (6,7,20,30,32) dont chacun présente au moins deux brides longitudinales (8,9,10,11,21,29,31,33,34), au moins un de ces profils (7,30) pouvant être relié par une bride longitudinale (10,29) au cadre (4,28) et l'autre (6,20,32) pouvant être relié par une bride longitudinale (8,21,31) au panneau de manière telle que les autres brides longitudinales (9,11,33,34) restent dégagées, les brides longitudinales (8,9,21,29,33) d'un premier profil (6,20,30) s'étendant en faisant un angle entre elles de telle manière que dans la position fermée du panneau elles couvrent des surfaces adjacentes du cadre et du panneau qui s'étendent en faisant le même angle entre eux, et une des brides longitudinales pouvant être reliée avec la surface qu'elle couvre tandis que les brides longitudinales (11,34) du deuxième profil (7,32) qui s'étendent dégagées s'étendent parallèlement à et à distance de l'autre surface de manière telle que dans la position fermée du panneau ladite bride couvre les brides longitudinales du premier profil qui s'étendent dégagées, caractérisé en ce que le deuxième profil (7,32) comporte deux brides longitudinales parallèles (10,11,31,34) qui sont reliées entre elles par une bride intermédiaire (12) qui s'étend en biais en faisant un angle obtus avec les deux brides longitudinales (10,11,31,34) (Fig. 1,4,6).

2. Dispositif de protection selon la revendication 1 pour un panneau qui est déplaçable par rapport au cadre, caractérisé en ce que le premier profil (30) à fixer au cadre (28) est en forme de L de telle manière que dans la position fermée du panneau (27) la bride longitudinale (33) qui s'étend dégagée est située entre le panneau (27) et la bride longitudinale (34) du deuxième profil (32) à monter sur le panneau et qui s'étend dégagée.

3. Dispositif de protection selon la revendication 1, caractérisé en ce que le premier profil (20) est en forme de U de telle manière que les brides du U sont dirigées vers la bride longitudinale (11) du deuxième profil qui s'étend dégagée et reçoivent entre elles cette bride.

4. Dispositif de protection selon une ou plusieurs des revendications précédentes, caractérisé en ce que les sections s'étendent sur toute la longueur dégagée d'une partie de cadre.

5. Cadre (3,4,28) muni d'un panneau (1,27) tel qu'une fenêtre ou une porte qui est déplaçable par rapport à celui-ci, caractérisé en ce qu'un dispositif de protection selon une des revendications précédentes est monté sur le cadre et le panneau.

Revendications

1. Dispositif de protection pour un panneau (1,27) tel qu'une fenêtre ou une porte, ce dispositif de protection étant mobile par rapport à un cadre (3,4,28) et

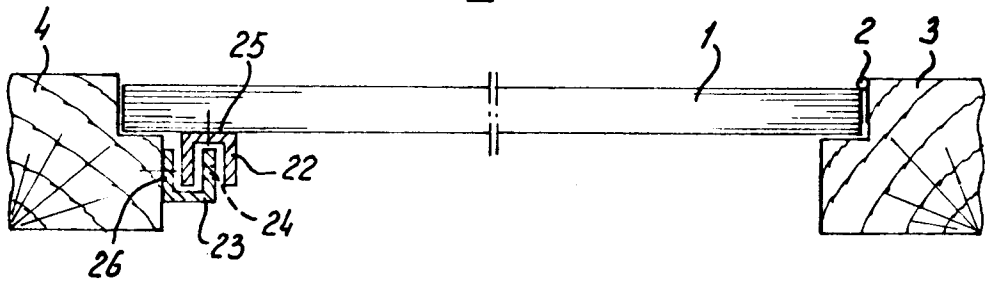
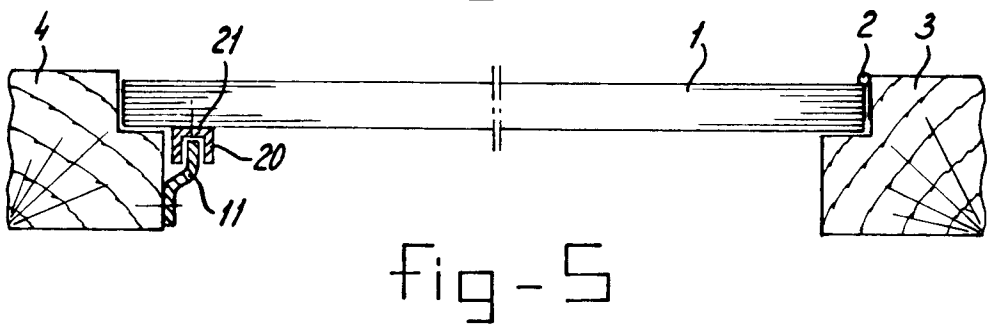
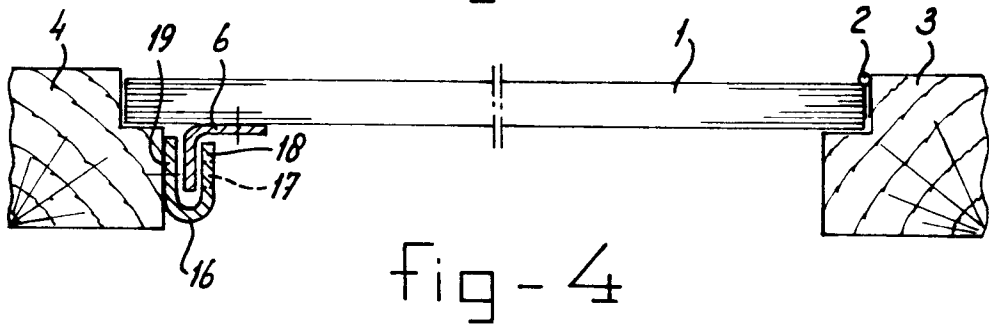
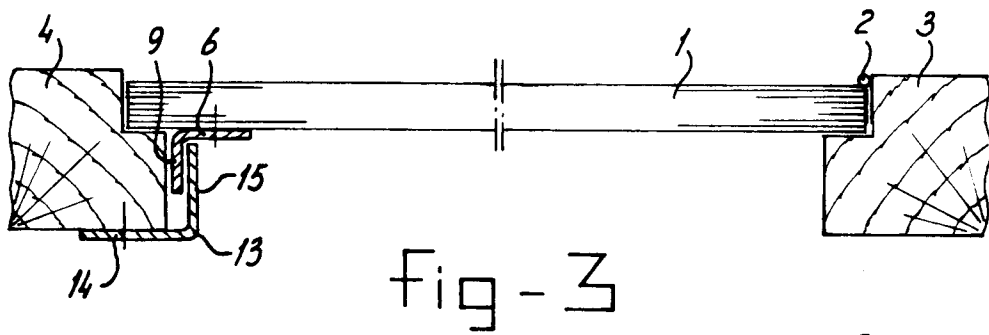
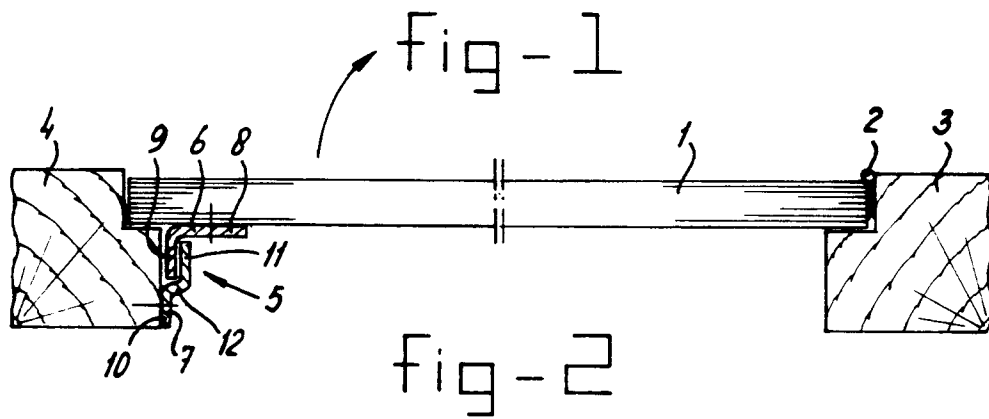


fig - 6

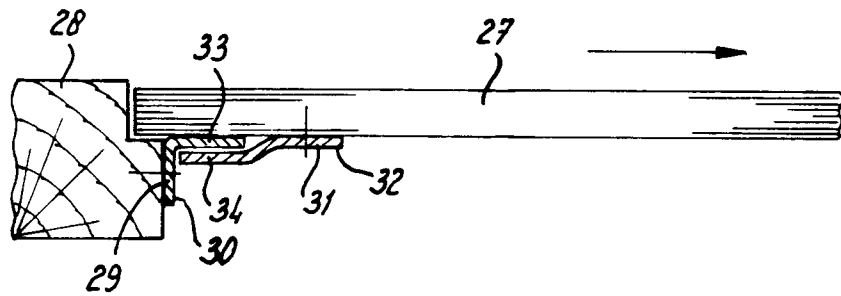


fig - 7

