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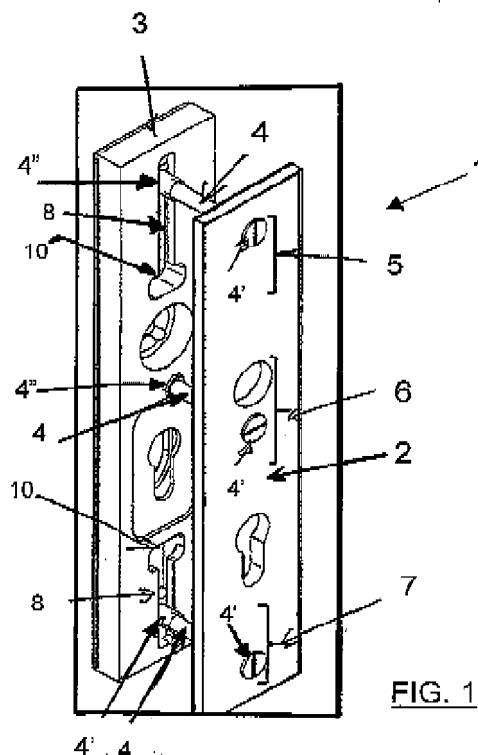
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(54) **DOOR FITTINGS COMPRISING AN INDOOR DOOR SHIELD AND AN OUTDOOR DOOR SHIELD, AND SUCH AN OUTDOOR DOOR SHIELD**

(57) Door fittings comprising an indoor door shield and a outdoor door shield that are connectable to each other with screws that are placeable in an upper part, a middle part, and a lower part of the door shields, wherein heads of the screws are located at the side of the indoor door shield and forward ends of the screws extend towards the outdoor door shield, and wherein the outdoor door shield is provided with a longitudinal slit or slits, wherein each slit is equipped to receive a flange that is slidable in the slit, and wherein said flange supports a bushing protruding from the flange, which bushing is equipped to receive a forward end of a screw.



Description

[0001] The invention relates to door fittings comprising an indoor door shield and an outdoor door shield that are connectable to each other with screws that are placeable in an upper part and/or a middle part and/or a lower part of the door shields, wherein heads of the screws are located at the side of the indoor door shield and forward ends of the screws extend towards the outdoor door shield. The invention also relates to the outdoor door shield that may form part of such a door fitting.

[0002] Such door fittings are known from practice. The outdoor door shield prevents access to the screws comprised in the door fittings, which is important to counteract breaking and entering by unauthorized people, notably thieves.

[0003] A problem with the known door fittings is that different brands of door fittings may use different locations for the screws in the upper part, the middle part and the lower part of the door shields. This means that replacement of the outdoor door shield by a shield of a different brand usually necessitates that also the indoor door shield must be replaced.

[0004] Another problem with the known door fittings is that its replacement by fittings of a different brand having the screws at different locations, also necessitates the drilling of new boreholes in the door at which the door fittings are applied. To avoid making new boreholes it is quite common that a replacement of the door fittings requires that the same brand of door fittings will be applied, which may mean that this can be a more costly solution than if one is at liberty to select the desired type of door fitting.

[0005] It is an object of the invention to alleviate these problems, and to provide a more flexible solution that enables the simultaneous use of different designs of indoor and outdoor door shields.

[0006] It is another object of the invention to reduce costs when only part of a door fitting is required or intended to be replaced.

[0007] It is still another object of the invention to provide door fittings that enables commercial companies to reduce the amount of fittings to be kept in stock.

[0008] These and other objects of the invention are promoted by door fittings having the features of one or more of the appended claims.

[0009] In a first aspect of the invention the outdoor door shield is provided with a longitudinal slit or slits, and that each slit is equipped to receive a flange that is slidably received in the slit, wherein said flange supports a bushing protruding from the flange, which bushing is equipped to receive a forward end of a screw which in use extends from the indoor door shield towards the outdoor door shield. By using this slidable flange and provide it in the slit of the outdoor door shield, it is possible to move this flange and the bushing provided thereon to exactly the point where it can receive the concerning screw from the indoor door shield. This way the outdoor door shield of

the door fittings of the invention can always be tailored to the design of the existing indoor door shield. Accordingly there is no longer any need to replace the indoor door shield when use is made of the outdoor door shield according to the invention to replace an existing outdoor door shield.

[0010] Preferably the slit or slits and the flange are attuned to each other so as to arrange that at least in a substantial part of the slit or slits the flange is prevented to leave the slit. This supports the mounting requirements of the indoor door shield and the outdoor door shield to connect them to each other so as to sandwich a door in between these shields.

[0011] Preferably further each slit has a forward portion at a surface region of the outdoor door shield, which forward portion is narrower than a backward portion within the outdoor door shield behind the forward portion. The rationale thereof is that the narrower forward portion is dimensioned to enable the bushing to protrude there-through, whilst the flange is snugly received in the backward portion behind the narrower forward portion within the outdoor door shield. This provides a form closed solution with superior strength.

[0012] Suitably the bushing has an open end which points during use at the indoor door shield when the flange is provided in the slit of the outdoor door shield. Preferably further the bushing is provided with inner screw thread for receipt and cooperation with a forward end of the screw received therein.

[0013] It is also beneficial that the flange is spring-loaded with a spring that is provided in the slit and which presses against the flange in the slit so that the flange occupies a preferred position in the slit and provides resistance against unintended shifting of the flange in the slit.

[0014] It is further beneficial that the flange has pointy protrusions that during use are capable to stick into material of the outdoor door shield so as to prevent movement of the flange in the slit.

[0015] Suitably the slit or slits have a portion at a surface region of the outdoor door shield which is wide enough to allow insertion or removal of the flange from the slit.

[0016] The invention will hereinafter be further elucidated with reference to the drawing of an exemplary embodiment of an apparatus according to the invention that is not limiting as to the appended claims.

[0017] In the drawing:

- figure 1 shows a door fitting according to the invention;
- figure 2 shows a outdoor door shield according to the invention ;
- figure 3 shows a frontal view at the outdoor door shield of figure 2 as well as a sectional view according to the line A-A through the door shield and the flange provided in the slit of the door shield.

[0018] Whenever in the figures the same reference numerals are applied, these numerals refer to the same parts.

[0019] Making reference first to figure 1 it shows a door fittings 1 comprising an indoor door shield 2 and an outdoor door shield 3 that are connectable to each other with screws 4 that are placeable in an upper part 5, a middle part 6, and a lower part 7 of the door shields 2, 3. The heads 4' of the screws 4 are located at the side of the indoor door shield 2 and forward ends 4" of the screws 4 extend towards the outdoor door shield 3.

[0020] As is also shown in figure 2, the outdoor door shield 3 is provided with a longitudinal slit or slits 8, wherein each slit 8 is equipped to receive a flange 9. For that purpose the slit or slits 8 have a portion 10 at a surface region of the outdoor door shield 3 which is wide enough to allow insertion or removal of the flange 9 into or from the slit 8.

[0021] The flange 9 is arranged to be slidable in the slit 8, and at the same time said flange 9 supports a bushing 11 protruding from the flange 9, which bushing is equipped to receive a forward end 4" of a screw 4.

[0022] The slit or slits 8 and the flange 9 are attuned to each other so as to arrange that at least in a substantial part of the slit or slits 8 the flange 9 is prevented to leave the slit 8. This is also illustrated in figure 3, wherein it is shown that the slit 8 has a forward portion 8' at a surface region of the outdoor door shield 3, which forward portion 8' is narrower than a backward portion 8" behind the surface region that lies within the outdoor door shield 3. The narrower forward portion 8' is dimensioned to enable the bushing 11 to protrude therethrough, whilst the flange 9 is snugly received in the backward portion 8" behind the narrower forward portion 8' within the outdoor door shield 3.

[0023] It can also be seen in figure 2 and in figure 3 that the bushing 11 on the flange 9 has an open end 11' pointing during use at the indoor door shield 2 when the flange 9 is provided in the slit 8 of the outdoor door shield 3.

[0024] It is further remarked that preferably the bushing 11 is provided with inner screw thread (not shown) for receipt and cooperation with a forward end 4" of the screw 4 received therein.

[0025] Figure 3 shows that the flange 9 can be spring-loaded with a spring 12 that is provided in the slit 8 and which presses against the flange 9 in the slit 8 so that the flange occupies a preferred position in the slit 8.

[0026] Finally it is shown that the flange 9 has pointy protrusions 13 that during use are capable to stick into material of the outdoor door shield 3 when the screws 4 of the door shields are tightened so as to prevent movement of the flange 9 in the slit 8.

[0027] Although the invention has been discussed in the foregoing with reference to an exemplary embodiment of the door fittings and the outdoor door shield of the invention, the invention is not restricted to this particular embodiment which can be varied in many ways

without departing from the invention. The discussed exemplary embodiment shall therefore not be used to construe the appended claims strictly in accordance therewith. On the contrary the embodiment is merely intended to explain the wording of the appended claims without intent to limit the claims to this exemplary embodiment. The scope of protection of the invention shall therefore be construed in accordance with the appended claims only, wherein a possible ambiguity in the wording of the claims shall be resolved using this exemplary embodiment.

Claims

1. Door fittings (1) comprising an indoor door shield (2) and an outdoor door shield (3) that are connectable to each other with screws (4) that are placeable in an upper part (5) and/or a middle part (6) and/or a lower part (7) of the door shields (2, 3), wherein heads (4') of the screws (4) are located at the side of the indoor door shield (2) and forward ends (4") of the screws (4) extend during use towards the outdoor door shield (3), **characterized in that** the outdoor door shield (3) is provided with a longitudinal slit or slits (8), wherein each slit (8) is equipped to receive a flange (9) that is slidable in the slit (8), and wherein said flange (9) supports a bushing (11) protruding from the flange (9), which bushing (11) is equipped to receive a forward end (4") of a screw (4).
2. Door fittings according to claim 1, **characterized in that** the slit or slits (8) and the flange (9) are attuned to each other so as to arrange that at least in a substantial part of the slit or slits (8) the flange (9) is prevented to leave the slit (8).
3. Door fittings according to claim 1 or 2, **characterized in that** each slit (8) has a forward portion (8') at a surface region of the outdoor door shield (3), which forward portion (3) is narrower than a backward portion (8") behind the surface region within the outdoor door shield (3).
4. Door fittings according to claim 3, **characterized in that** the narrower forward portion (8') is dimensioned to enable the bushing (11) to protrude therethrough, whilst the flange (9) is snugly received in the backward portion (8") behind the narrower forward portion (8') within the outdoor door shield (3).
5. Door fittings according to claim 4, **characterized in that** the flange (9) and the backward portion (8") embody a form closed connection.
6. Door fittings according to any one of the previous claims 1 - 5, **characterized in that** the bushing (11) has an open end (11') pointing during use at the in-

door door shield (2) when the flange (9) is provided in the slit (8) of the outdoor door shield (3).

7. Door fittings according to claim 1 or 2, **characterized in that** the bushing (11) is provided with inner screw thread for receipt and cooperation with a forward end (4") of the screw (4) received therein. 5
8. Door fittings according to any one of the previous claims 1 - 7, **characterized in that** the flange (9) is spring-loaded with a spring (12) that is provided in the slit (8) and which presses against the flange (9) in the slit (8) so that the flange (9) occupies a preferred position in the slit (8). 10
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9. Door fittings according to any one of the previous claims 1 - 8, **characterized in that** the flange (9) has pointy protrusions (13) that during use are capable to stick into material of the outdoor door shield (3) so as to prevent movement of the flange (9) in the slit (8). 20
10. Door fittings according to any one of the previous claims 1 - 9, **characterized in that** the slit or slits (8) have a portion (10) at a surface region of the outdoor door shield (11) which is wide enough to allow insertion or removal of the flange (9) into or from the slit (8). 25
11. Outdoor door shield (3) described as part of the door fittings (1) according to any one of the previous claims 1 - 9. 30

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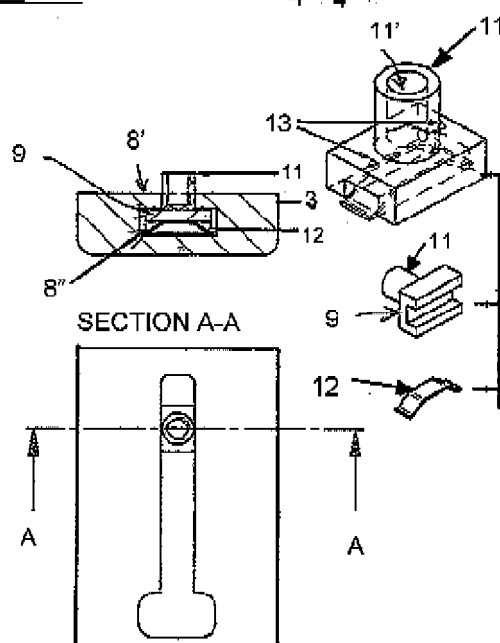
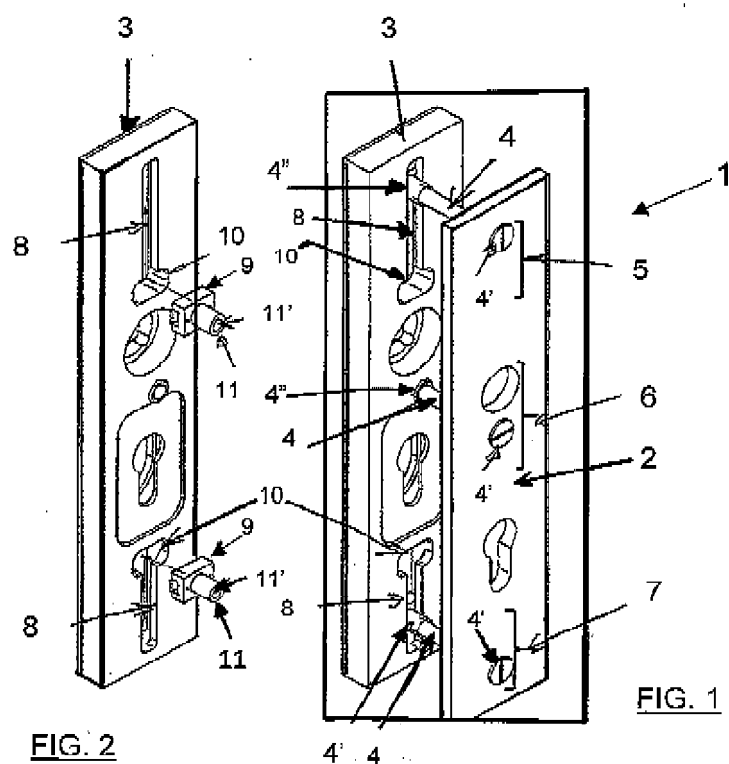


FIG. 3



EUROPEAN SEARCH REPORT

Application Number
EP 17 16 0633

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 3 107 113 A (GEORGE SCONZO THOMAS) 15 October 1963 (1963-10-15)	1-7, 9, 11	INV. E05B15/02
Y	* the whole document *	8	
X	WO 2010/001170 A2 (HEELEY PETER [GB]; JONES PHILIP DAVID [GB]) 7 January 2010 (2010-01-07) * the whole document *	1, 2, 6, 7, 10, 11	
Y	US 2006/162127 A1 (HUANG LAN-SHI [TW] ET AL) 27 July 2006 (2006-07-27) * paragraph [0023]; figures 3-5 *	8	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			E05B
Place of search		Date of completion of the search	Examiner
The Hague		7 July 2017	Westin, Kenneth
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 17 16 0633

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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07-07-2017

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82