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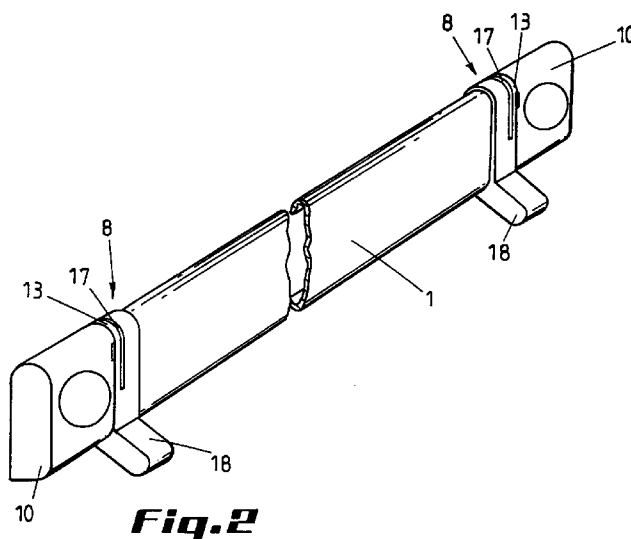
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(54) **Shutter for slot ventilation**

(57) The invention relates to a shutter for slot ventilation with a closing profile, each extremity of which is provided with a connecting piece (8) showing laterally a protruding pen with which it penetrates a block (10) and may be rotated with respect to it, which connecting

piece (8) shows laterally a spring lamella (13) which at the outside shows a relief which combines with a relief on the block (10) so that the revoluble closing profile may be blocked in an open and a closed position.



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Description

[0001] This invention relates to a shutter for slot ventilation in a hollow frame profile which mainly consists of two blocks to be fixed onto the frame profile and which receive the extremities of an elongated closing profile, so that the elongated closing profile may be revolved with respect to said blocks and thus with respect to the frame profile.

[0002] By slot ventilation is meant a ventilation technique using slots made in a hollow frame profile so that air may circulate from outside inwards.

[0003] Various rotatable or slidable structures exist which should allow to seal the slots and to interrupt the air circulation.

[0004] The aim of the invention is to present a shutter which ensures a perfect closing of the slots and which may be brought in both the open and closed positions without any effort whatsoever.

[0005] In order to make this possible in accordance with the invention, each extremity of the closing profile is provided with a connecting piece showing a laterally protruding pen by which it penetrates above mentioned block and may be rotated with respect to it, which connecting piece shows laterally a spring lamella showing a relief on the outside which combines with a relief provided on the block, so that the revolvable closing profile may be blocked in at least an open and a closed position.

[0006] Still according to the invention, above mentioned relief on above mentioned spring lamella is a protrusion and above mentioned relief on above mentioned block is located in a notch, whereby above mentioned protrusion progressively increases in the sense in which the closing profile is revolved in order to close.

[0007] Other details and advantages of the invention will become evident from the following description of a shutter for slot ventilation according to the invention. The description is only given as an example and does not limit the invention. The reference numbers refer to the attached figures.

Figure 1 is a perspective view of the shutter according to the invention, the parts being shown separately;

Figure 2 is a similar view, the parts being assembled;

Figure 3 is a longitudinal section through a connecting piece in the closed position;

Figure 4 is a longitudinal section through a hollow frame profile at shutter height in the open position.

[0008] The shutter for slot ventilation according to the invention essentially consists of an elongated profile 1 intended to shut off a slot in a hollow frame profile 2. Such a hollow frame profile has an internal side 3 and an external side 4. In both sides slots 5, respectively 5' are made. The slot 5' is protected by a profile 6 and a

gauze 7. The profile 6 does not belong to the substance of the invention and may thus show any shape allowing air circulation from outside inwards through the hollow frame profile 2.

[0009] In order to allow the revolution from open to closed position, and inversely, of the elongated profile 1 of the shutter, and to keep it blocked in the closed position, according to the invention this elongated profile 1 is connected through its two extremities to connecting pieces 8 which are designed such that they ensure the desired correct junction of the profile 1 to the hollow frame profile 2 at slot 5 height. For this purpose, each of the connecting pieces 8 shows laterally a tap 9 intended to be slid into a cavity 9' of a block 10 screwed onto the frame profile.

[0010] Thus at each extremity of the profile 1 a block 10 is located. A circular opening 11 and an elongated opening 11' in one of the blocks 10 allows an exact positioning of the block 10 on the frame profile 2. It is indeed an essential requirement that the blocks 10 are closely joined with the connecting pieces 8 which in the embodiment of the invention are slid into the profile 1 with their wing 12. Each connecting piece shows laterally a spring lamella 13 which at the outside shows a protrusion 14 (fig. 1) which upon the closing of the shutter combines with a relief 15 provided laterally in each block 10.

[0011] The protrusion 14 is a progressive protrusion belonging to the spring lamella 13, while the relief 15 is located in a notch 16, so that upon revolving the elongated profile 1 towards the closed position, the protrusion belonging to the relief 14 passes over the relief 15. This is indeed possible because upon the revolution of the shutter, the spring lamella 13 is pushed back to a notch 17 and immediately afterwards returns to its original position and keeps the elongated profile 1 blocked in the closed position. The revolving of the connecting pieces 8 is effected by acting on the levers 18.

[0012] Thanks to the above described structure of a shutter, an excellent blocking up of the ventilation slots 5 is ensured and this with means which are technically reliable. All parts may be made of plastic material, including ABS.

Claims

1. Shutter for slot ventilation in a hollow frame profile which mainly consists of two blocks to be fixed onto the frame profile and which receive the extremities of an elongated closing profile, so that the elongated closing profile may be revolved with respect to said blocks and thus with respect to the frame profile, characterized in that each extremity of the closing profile (1) is provided with a connecting piece (8) showing laterally a protruding pen with which it penetrates above mentioned block (10) and may be revolved with respect to it, which connecting piece (8) shows laterally a spring lamella (13) showing at

the outside a relief which combines with a relief provided on the block (10) so that the revoluble closing profile may be blocked in an open and a closed position.

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2. Shutter according to claim 1, characterized in that above mentioned relief on above mentioned spring lamella (13) is a protrusion (14) and above mentioned relief (15) on above mentioned block (10) is located in a notch (16).

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3. Shutter according to claim 2, characterized in that above mentioned protrusion (14) progressively increases in the sense in which the closing profile (1) is revolving to close.

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4. Shutter according to claim 2, characterized in that above mentioned notch (16) shows a locally elevated relief (15) over which above mentioned protrusion (14) belonging to the spring lamella (13) may slide upon closing the closing profile (1).

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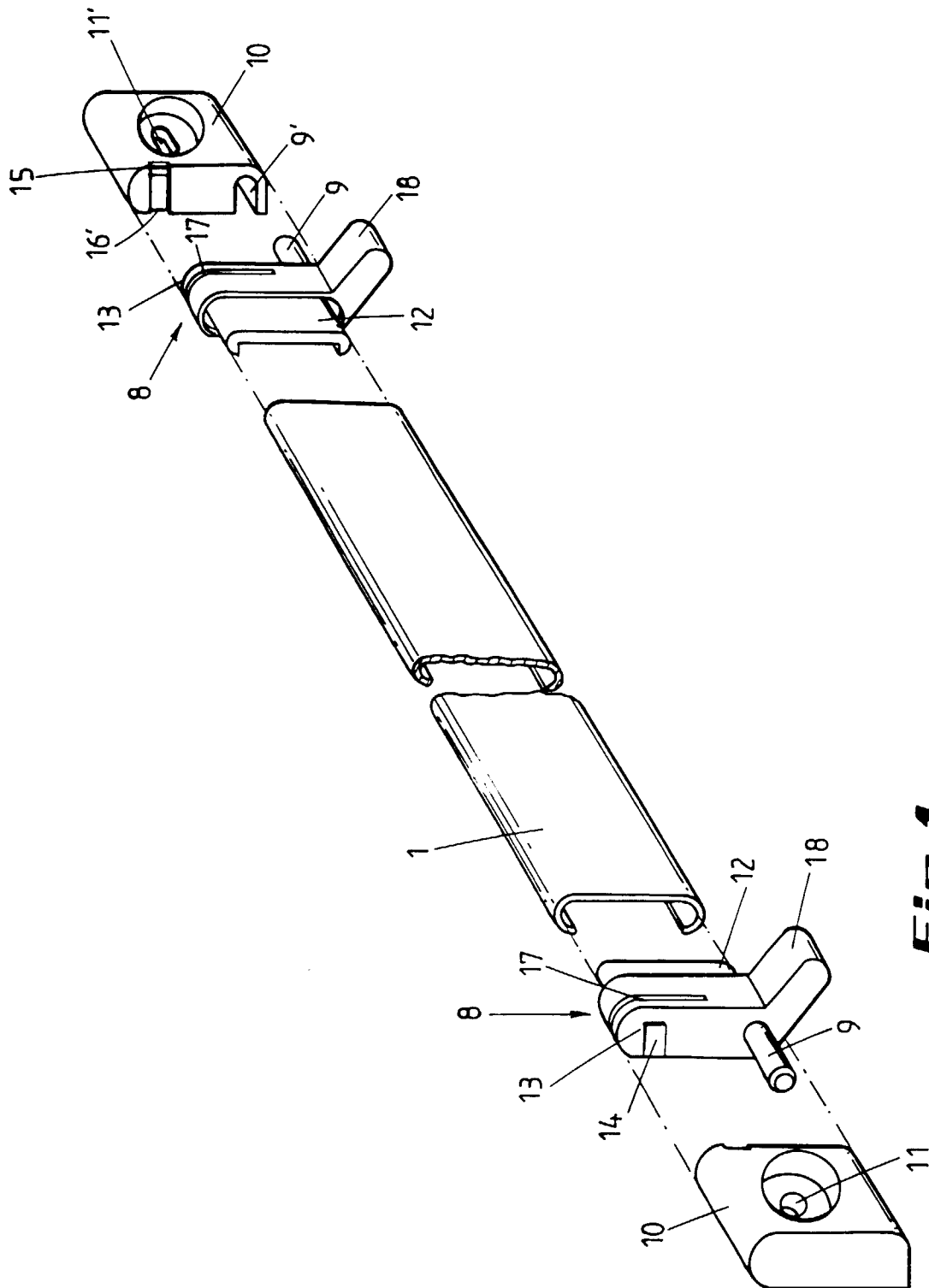
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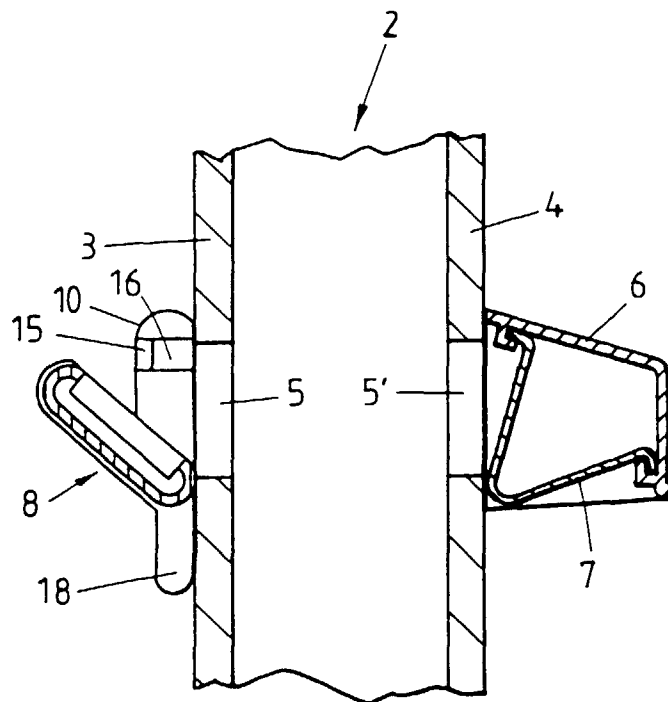
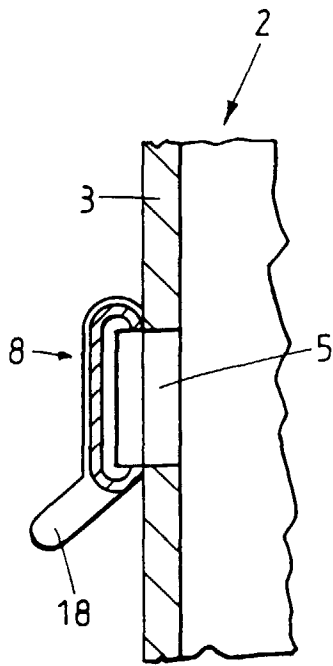
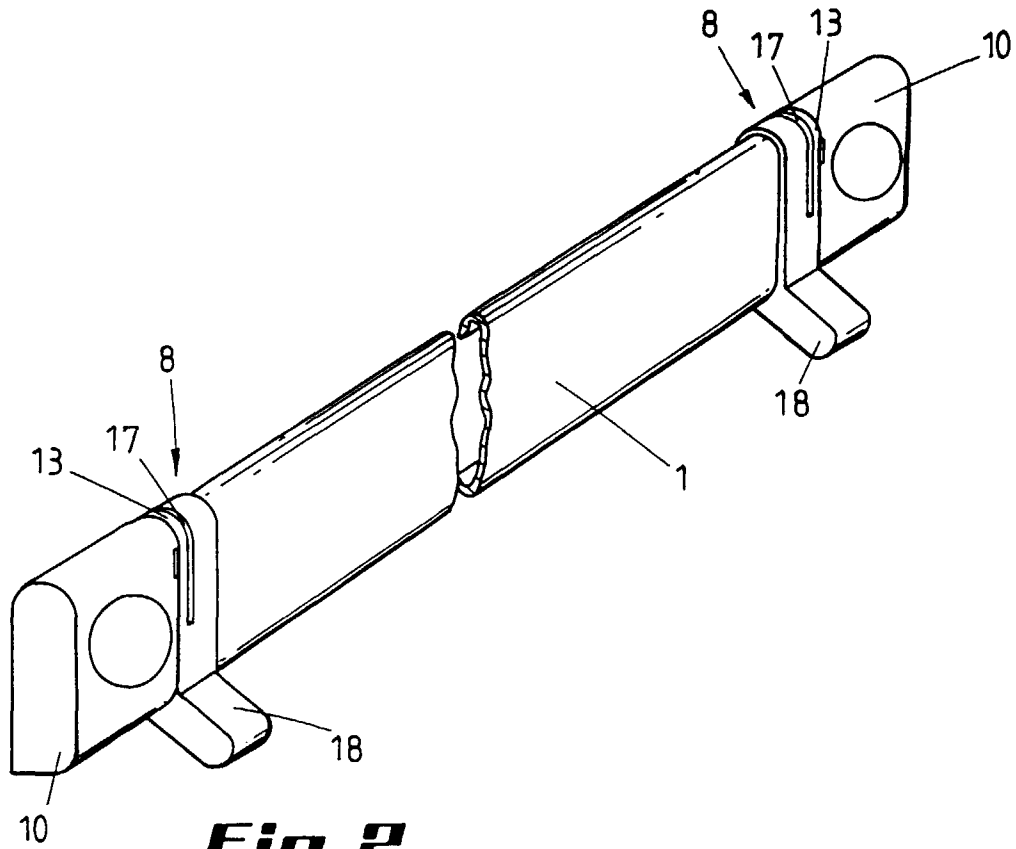
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EUROPEAN SEARCH REPORT

Application Number
EP 97 20 4017

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	GB 2 194 328 A (HARDWARE & SYSTEMS PATENTS LTD) 2 March 1988 * the whole document *	1	F24F13/18 F24F13/14
A	GB 2 241 572 A (GLIDEVALE BUILDING PROD) 4 September 1991 * figures 2,8,9 *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			F24F E06B
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		11 May 1998	Gonzalez-Granda, C
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