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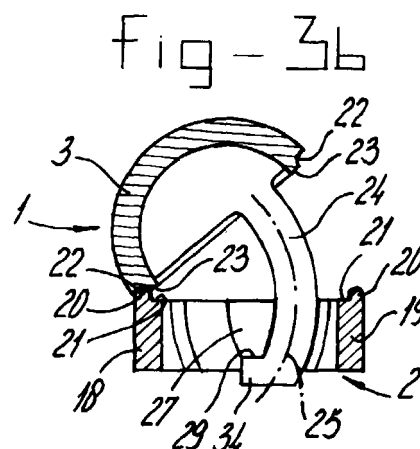
Remarks:

A request for correction to the claims (addition of claim 15) has been filed pursuant to Rule 88 EPC. A decision on the request will be taken during the proceedings before the Examining Division (Guidelines for Examination in the EPO, A-V, 3.).

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(54) **Slot ventilator**

(57) A slot vent (1) comprises an elongate base part (2) through which a slot-like passage (33) extends, as well as an elongate flap part (3) for closing or opening the said passage (33), which flap part (3) is pivotable with respect to the base part (2). The base part (2) and the flap part (3) are provided with integrated pivot means (20,22,24,27), in such a manner that the base part (2) and the flap part (3), with integrated pivot means (20,22,24,27), form the only components which enable the pivoting movement between the said base part (2) and the said flap part (3) to take place.



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Description

[0001] The invention relates to a slot vent, comprising an elongate base part through which a slot-like passage extends, as well as an elongate flap part for closing or opening the said passage, which flap part is pivotable with respect to the base part.

[0002] A slot vent of this nature is used, for example, to control the ventilation via a slot in, for example, the window frame of a window. Slot vents in which the flap can be moved between the open and closed positions are known. Slot vents in which the flap can be rotated between the open and closed positions are also known.

[0003] The object of the invention is to provide a slot vent which has a simpler and relatively inexpensive design. This object is achieved by the fact that the base part and the flap part are provided with integrated pivot means.

[0004] In particular, the integrated pivot means form the only components which enable the pivoting movement between the base part and the flap part to take place without the need for additional components, such as hinge pins or locking means. In particular, the base part and the flap part themselves form the only two components of the slot vent.

[0005] In order to obtain the desired rotational movement, the flap part and the wall which interacts pivotably therewith may have, on their mutually facing edges, a corresponding concave or convex cross-sectional shape. A design of this nature offers a suitable maximum free passage and is relatively inexpensive. Preferably, the flap part has a concavely shaped edge, and the base part has at least one convexly shaped edge.

[0006] Furthermore, the flap part may have at least one transversely extending limb, and the base part may have at least one correspondingly positioned rib, which limb and which rib interact with one another so as to limit the pivoting movement of the flap part.

[0007] Each limb may be curved and may be accommodated in a corresponding curved recess in the associated rib. Furthermore, each limb may have, at its free end, a stop, which stop, in the outermost pivot position of the flap part, bears against the associated rib.

[0008] Preferably, each limb is formed in the shape of a curve, the origin of which coincides with the centre line of the concavely or convexly shaped parts.

[0009] According to the invention, the slot vent may be designed, as desired, with a flap part which pivots upwards or downwards. In that case, the flap part may be arranged pivotably, as desired, on each of the walls of the base part, which walls each have an edge with a concave or convex cross-sectional shape.

[0010] Depending on the design selected, the air may be guided upwards or downwards during ventilation.

[0011] The flap part is locked in the closed and/or

the outermost, open pivot position by means of latching means. Furthermore, each limb and each associated rib may interact with one another in a frictional manner, in such a manner that the flap part can be placed in a stable intermediate position between the closed position and the outermost, open pivot position.

[0012] The invention also relates to an assembly, comprising a slot vent, which is intended to be arranged on the inside of a window frame, in which there is a ventilation slot, as well as a slot cap which is intended to be arranged on the outside of the said window frame.

[0013] The invention will be explained in more detail below with reference to an exemplary embodiment which is illustrated in the figures, in which:

Figures 1a and 1b show a bottom view and a front view of the slot vent according to the invention;

Figures 2a and 2b show a bottom view, a front view and a rear view, of the slot cap;

Figures 3a and 3b show a cross section through the slot vent in the closed and open positions;

Figure 4 shows a longitudinal section through the slot vent;

Figure 5 shows a plan view of the base part of the slot vent;

Figure 6 shows a cross section through an alternative embodiment of the slot vent;

Figure 7 shows the assembly comprising slot vent and slot cap according to the invention, in the position in which it is arranged on a window frame.

[0014] The slot vent 1 illustrated in Figures 1a, 1b and Figure 7 comprises a base part 2, as well as a flap part 3 which can pivot with respect to the said base part 2. The flap part 3 has an operating lip 4, by means of which the user is able to move the flap part 3 between the open and closed positions.

[0015] As shown in Figure 7, the invention also comprises a slot cap 5. In Figure 7, a slot vent 1 and the slot cap 5 are arranged on slots 6 and 7, respectively, in a window-frame section 8, in such a manner that a ventilating air flow can pass through the internal space 9 in this window-frame section, between its outside 10 and its inside 11.

[0016] The aim of the slot cap 5 is to prevent precipitation from being able to enter the internal space 9. The aim of the slot vent is to adjust the ventilation as a function of the position of the flap part 3.

[0017] The window-frame section is situated on the top side of a double window pane 12 which is known per se and is connected to the window-frame section 8 in a manner which is also known and is not described in more detail.

[0018] As shown in Figures 2a and 2b, the slot cap 5 has a front wall 13, which delimits a downwardly open passage 14. The ambient air can enter via the interior space 15 in the slot cap 5, which is in communication with the slot 7 of the window-frame section 8.

[0019] As shown in Figures 1a-2b, both the slot vent 1 and the slot cap 5 have small protective caps 16, 17, beneath which the attachment screws (which will be described below) are situated.

[0020] As shown in Figures 3a-3b, each base part 5 has two walls 18, 19 which extend in the longitudinal direction and each have a convexly shaped part 20 and an adjoining flat part 21 on their edge which faces towards the flap part 3.

[0021] On its edges which face towards the base part 1, the flap part 3 correspondingly has a concave section 22 and an adjoining flat section 23. 10

[0022] As shown in Figure 3b, the flap part 3 may pivot, by way of one of its concave edge parts 22, about the convex edge part 20 of the wall 18 of the base part. 15

[0023] In order to guide this pivoting movement correctly, the flap part 3 bears a number of curved limbs 24. The centre of the curved axis 25 of the said limbs 24 lies approximately at the level of the centre of the convex edge part 20 or the concave edge part 22 of wall 18 and flap part 3. 20

[0024] Each curved limb 24 rests in a gap 26, which is also curved, in the ribs 27, which ribs 27 connect the two longitudinal walls 18, 19, as base part 1, at regular intervals. 25

[0025] In order to limit the maximum pivoting movement of the flap part 3, each limb 24 has a stop 29, 34 which comes to bear against the surface 30 of the associated rib 27.

[0026] As shown in the variant illustrated in Figure 6, the flap part 3 may also be fitted in the reverse manner on the base part 2, so that the limbs 24 point in the opposite direction. In this case, the limbs are arranged in the gaps 28. As a result, the flap can be arranged so as to pivot open both upwards and downwards. 30

[0027] As is further shown in Figures 4 and 5, the base part has, at its ends, an attachment plate 31 in which there is a hole 32 for attaching the base part 2 to a window frame by means of a screw or something similar. It can be seen from Figure 4 that in that area the base part is covered by the protective cap 16 mentioned above. 35

Claims

1. Slot vent (1), comprising an elongate base part (2) through which a slot-like passage (33) extends, as well as an elongate flap part (3) for closing or opening the said passage (33), which flap part is pivotable (35) with respect to the base part, characterized in that the base part (2) and the flap part are provided with integrated pivot means (20, 22, 24, 27). 50
2. Slot vent according to Claim 1, in which the base part (2) and the flap part (3), with integrated pivot means (20, 22, 24, 27), form the only components which enable the pivoting movement between the said base part (2) and the said flap part (3) to take 55

place.

3. Slot vent according to Claim 1 or 2, in which the base part (2) has two walls (18, 19) which extend in the longitudinal direction, and the flap part (3) interacts pivotably with one of the walls (18, 19).

4. Slot vent according to Claim 3, in which the flap part (3) and the wall (18, 19) which interacts pivotably therewith have, on their mutually facing edges, a corresponding concave (22) or convex (20) cross-sectional shape.

5. Slot vent according to Claim 4, in which the flap part (3) has a concavely shaped edge (22), and the base part (2) has at least one convexly shaped edge (20).

6. Slot vent according to Claim 4 or 5, in which the edges have a cross-sectional shape with both a concavely (22) or convexly (20) shaped part and a flat part (21, 23).

7. Slot vent according to Claim 3, 4, 5 or 6, in which the flap part (3) has at least one transversely extending limb (24), and the base part (2) has at least one correspondingly positioned rib (27), which limb (24) and which rib (27) interact with one another so as to limit the pivoting movement of the flap part (3).

8. Slot vent according to Claim 7, in which each limb (24) is curved and is accommodated in a corresponding curved recess (26, 28) in the associated rib (27).

9. Slot vent according to Claims 6, 7 and 8, in which each limb is formed in the shape of a curve, the origin of which coincides with the centre line of the concavely (22) or convexly (20) shaped parts.

10. Slot vent according to Claim 8 or 9, in which each limb (24) has, at its free end, a stop (29, 34), which stop (29, 34), in the outermost pivot position of the flap part (3), bears against the associated rib (27, 30).

11. Slot vent according to Claim 8, 9 or 10, in which each limb (24) and each associated rib (27, 30) interact with one another in a frictional manner, in such a manner that the flap part can be placed in a stable intermediate position between the closed position and the outermost, open pivot position.

12. Slot vent according to Claim 8, 9, 10 or 11, in which the flap part is locked in the closed and/or the outermost, open pivot position by means of latching means.

13. Slot vent according to Claim 12, in which the latching means comprise projections and recesses.

14. Slot vent according to one of Claims 4-13, in which the flap part (3) can be arranged pivotably, as desired, on each of the walls (18, 19) of the base part (2), which walls (18, 19) each have an edge with a concave or convex (20) cross-sectional shape.

16. Slot vent according to Claim 15, in which the edges of the walls (18, 19) are symmetrical with

respect to the longitudinal plane.

17. Slot vent according to Claim 15 or 16, in which each rib (27) has two curved recesses (26, 28) which are positioned symmetrically with respect to the longitudinal plane and which can accommodate a curved limb (24) of the flap part (3). 5

18. Slot vent according to one of the preceding claims, in which the cross-section of the flap part (3) is essentially semi-circular, oval or elliptical in shape. 10

19. Slot vent according to Claim 3, in which the flap part (3) interacts pivotably with one of the walls (18, 19), with movement in the direction of two coordinate axes with respect to a floating pivot point.

20. Assembly, comprising a slot vent (1) according to one of the preceding claims, which is intended to be arranged on the inside (11) of a window frame (8) in which there is a ventilation slot (6, 7, 9), as well as a slot cap (5) which is intended to be arranged on the outside (10) of the said window frame (8). 15 20

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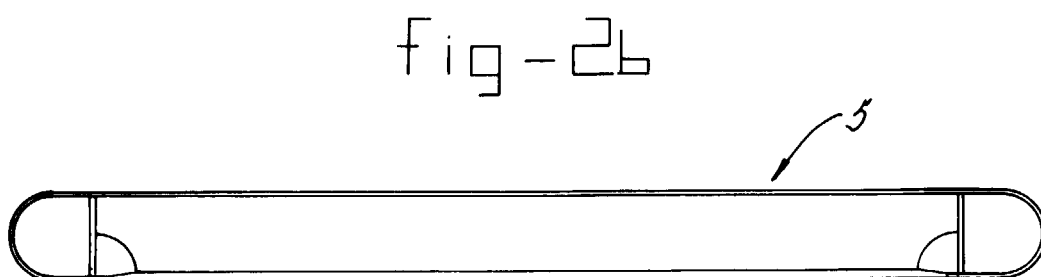
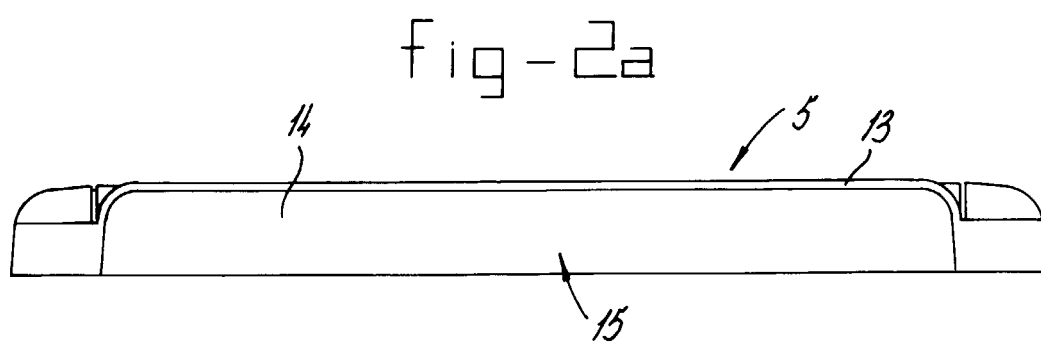
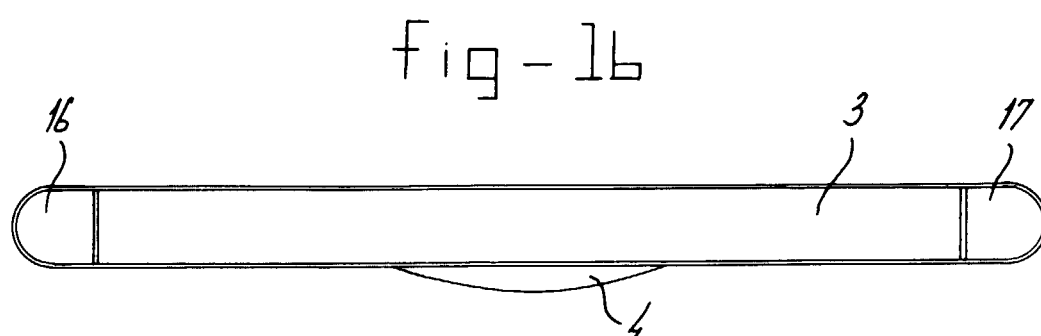
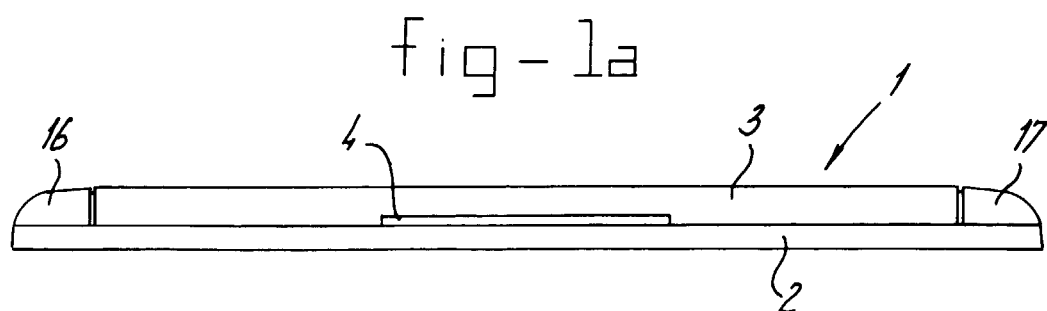
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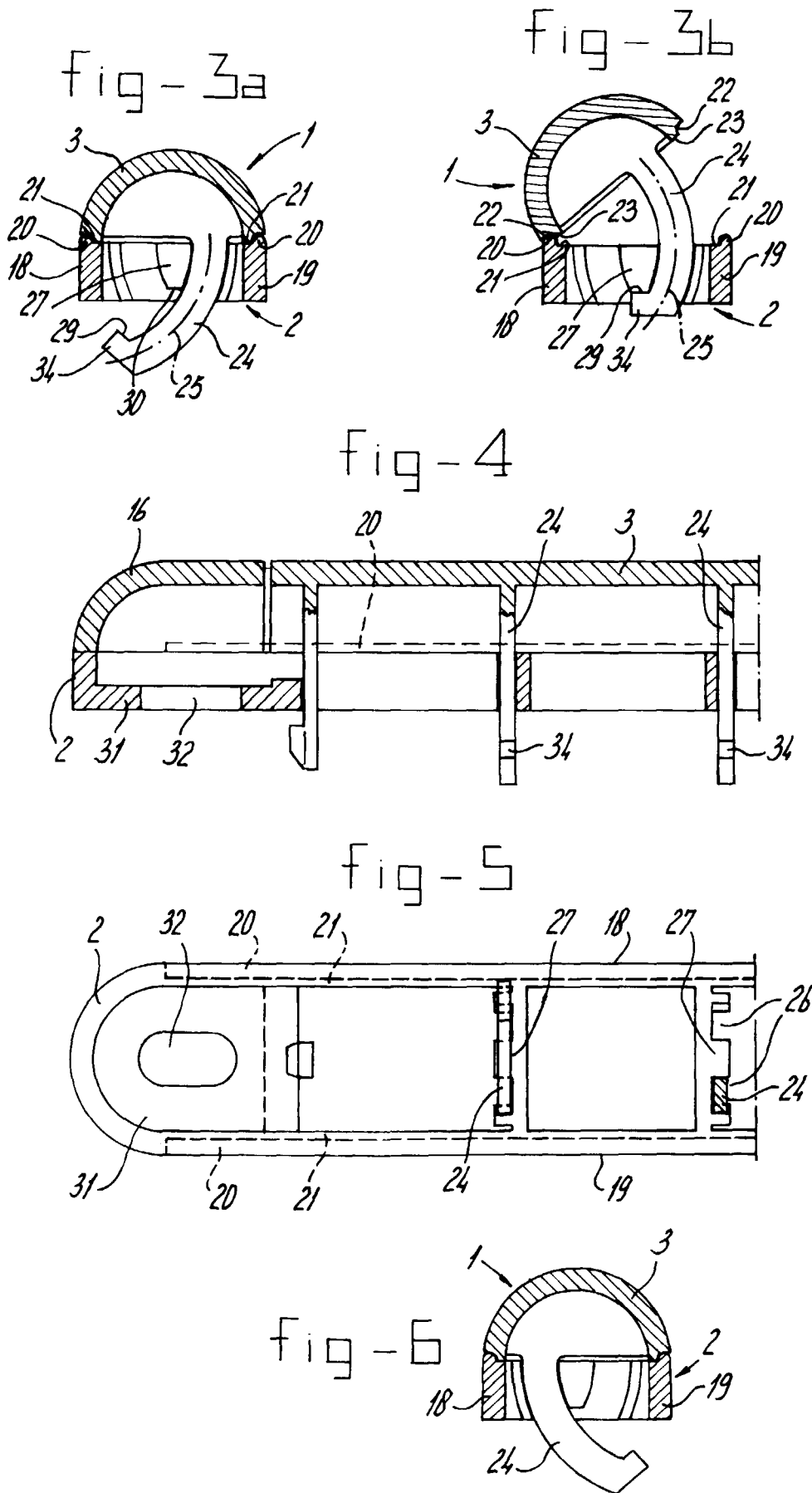
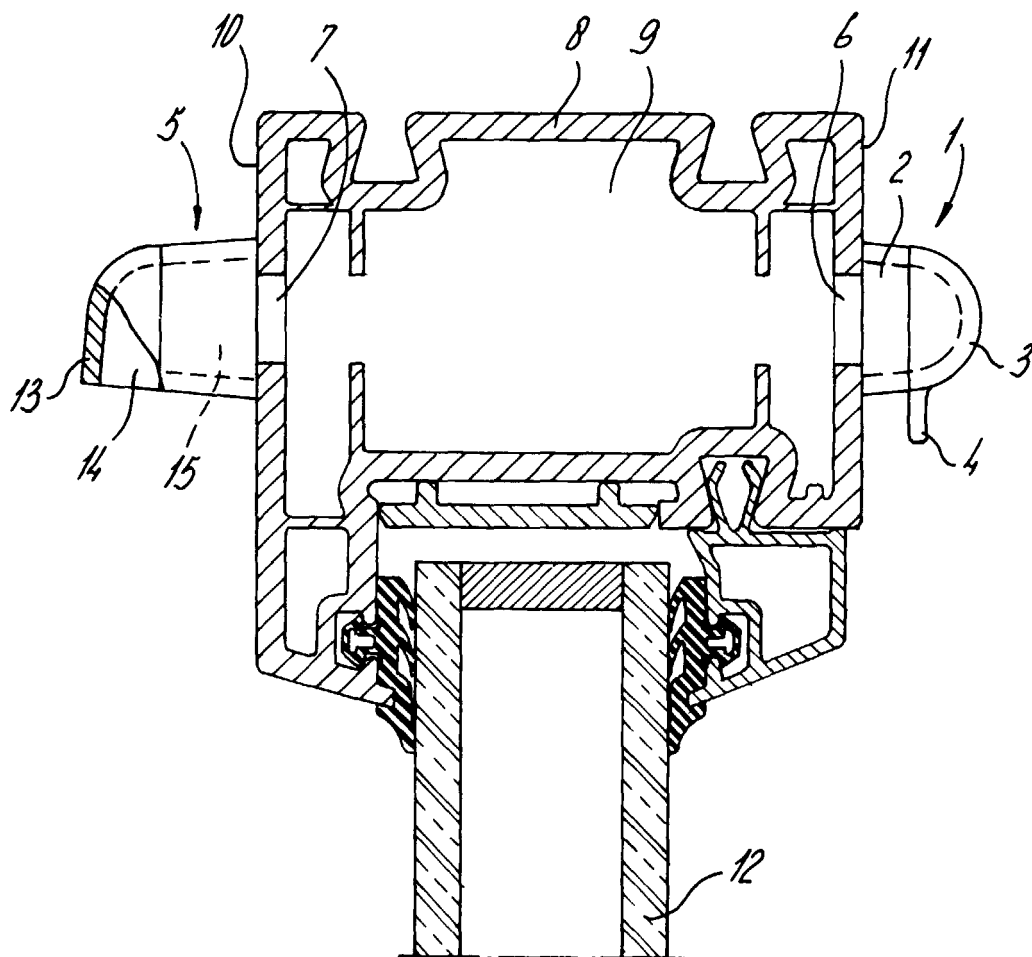


fig-7





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EUROPEAN SEARCH REPORT

Application Number
EP 98 20 3940

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)
X	GB 2 276 235 A (HUNTER INTERNATIONAL) 21 September 1994 * abstract; figures 2,6,7 *	1,3-6	E06B7/06 F24F13/18 E06B7/10
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6) E06B F24F E05D
Place of search THE HAGUE		Date of completion of the search 29 April 1999	Examiner Peschel, G
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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