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(54) Improvements relating to gutters

(57) A guard for protecting guttering comprises an elongate panel for covering the open face of a gutter, having two opposite side edges. Two clips securing the guard to the gutter. One end of the plate is formed with an inwardly extending lip, the edge of said lip being located, in use, within said gutter panel and being angled towards the lip and attached thereto by a curved, substantially u shaped section such that in use the guard encourages water to run along its surface to said lip and into said gutter.

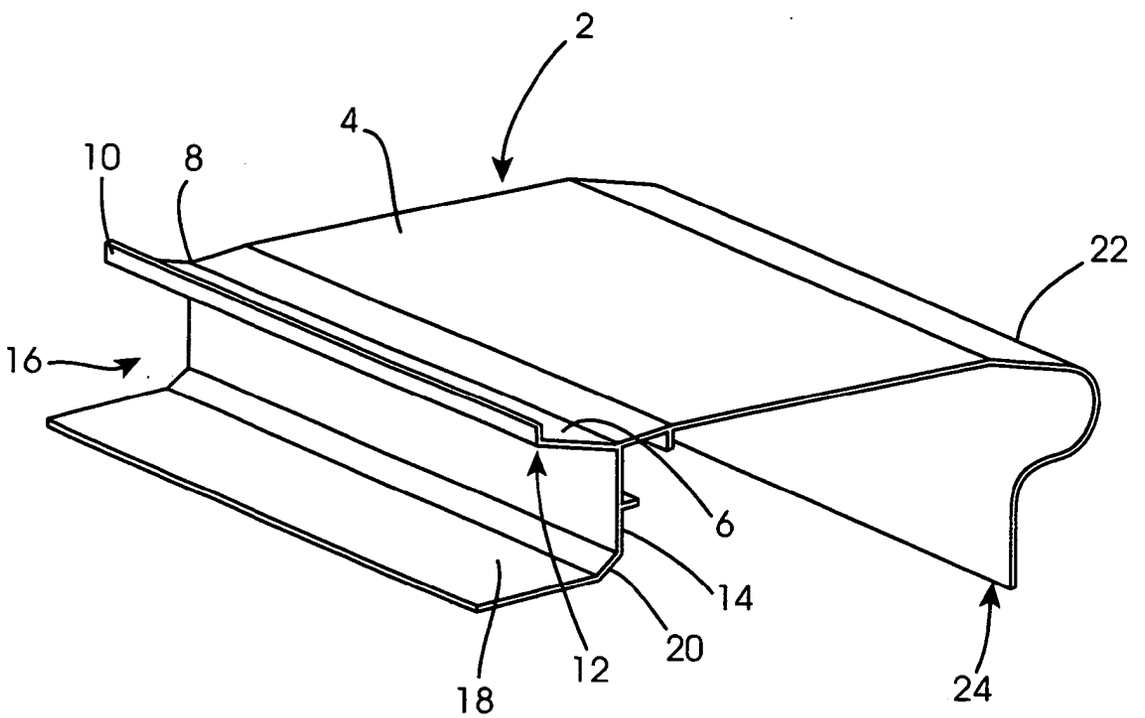

Fig. 1

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Description

[0001] This invention relates to protective covers for gutters on buildings. More particularly but not exclusively this invention relates to a removable gutter guard suitable for residential or commercial buildings which allows rainwater to enter the gutter but deflects other debris thus avoiding blockages.

[0002] It is known to provide house gutters with guards which fit over the gutter to prevent debris such as leafs or animals from entering the gutter and causing blockages. However there is a need for a gutter guard which is easily attached to a gutter without the need to utilise permanent fixings onto the structure to which the gutter is attached.

[0003] According to the present invention there is provided a guard for protecting guttering comprising an elongate panel for covering the open face of a gutter said panel having two opposite side edges, at least two clips for securing the guard to the gutter, wherein one end of the panel is formed with an inwardly extending lip, the edge of said lip being located, in use, within or over said gutter, said panel being angled towards said lip and attached thereto by a curved, substantially u shaped section such that in use the guard encourages water to run along its surface to said lip and into said gutter.

[0004] Advantageously only water is allowed to flow into the gutter with any other debris falling over the curved u shaped member and onto the ground below.

[0005] Preferably the guard is provided with a coating to reduce the water surface tension effect and encourage water to cling to its surface.

[0006] Preferably the guard is retained in a slot formed between two resilient members of one of said clips.

[0007] Preferably the guard is integrally attached to the lip.

[0008] Preferably the guard is formed from a resilient material.

[0009] Preferably the other side edge of the guard is located within a second clip and located against the wall to which the gutter is fixed.

[0010] Preferably each of said clips are attached to opposite edges of the gutter and guard.

[0011] Advantageously no fixing devices are employed as the resilient quality of the plate or clips holds the guard in place and the second clip against the wall.

[0012] The invention will now be described by way of example only with reference to the accompanying drawings in which:

Figure 1 is a perspective view of a gutterguard

Figure 1 a is a perspective view of a clip associated with the gutter guard of figure 1

Figure 1 b is another clip associated with the gutter guard of figure 1

Figure 2 is a cross section through the gutter guard and associated clips of figures 1, 1a and 1 b showing the guard attached to a gutter

Figure 3 is a perspective view of a gutter guard with the associated clips attached

In Figure 1 a gutterguard 2 comprises a metal plate or panel 4 of a size suitable for covering the channel of a conventional gutter. In this embodiment the panel is metal although any suitable material could be employed. This panel 4 is connected to an angled wall 6 at a bend 8 and may be coated with a suitable coating which increases the surface tension effect thus enabling water to cling to its surface more readily. This angled wall is provided with a lip 10 at its elongate free edge 12.

[0013] A downwardly extending wall 14 is also connected to the section 4 at the bend 8. This downwardly extending wall is formed into a substantially L shaped member 16 connected to the underside of the panel 4. The base portion 18 of said L section 16 is connected to the wall 14 via an angled portion 20. The base portion 18 extends outwardly from the plate 4.

[0014] The panel 4 is connected to an elongate curved or sloping section 22 which is located at the opposite side of the plate section 4 to the angled wall 6 and the downwardly extending wall 14.

[0015] This curved section 22 is formed into a U bend arrangement which includes a downwardly extending wall 24.

[0016] The wall 24 and base portion 18 are arranged so as to locate in clips to secure the guard 2 to a gutter 30.

[0017] Figure 2 shows a gutterguard 2 located in a pair of clips 26, 28, over a gutter 30. The gutter 30 has, in this example, a U shaped profile. However it is to be understood that any profile of gutter is envisaged.

[0018] The clip 26 is attached to the edge 32 of the gutter 30 whereas the clip 28 abuts flush against the wall or facia 36 to which the gutter 30 is attached and is located over edge 34 of the gutter 30. The clip 28 locates against the wall of the building or facia to which the gutter 30 is attached (not shown) and comprises an elongate section 38 which abuts the wall 36, a resilient member 40 abuts the underside 42 of the gutter 30. It is to be noted that no additional fixings are required to locate the clip 28 against the wall 36. A slot 44 is formed in the top portion 46 of the clip 26 and is arranged to receive the base portion 18 of the gutterguard 2. This base portion is formed as a flat plate and slides into the slot 44. The slot 44 is formed by two flat plate sections 48 and 50. The top plate section 48 is resilient so as to receive and securely locate the base portion plate 18 of the gutterguard 2. A lip 52 is provided at the free edge of the

resilient top plate 48 of the clip 28 thereby allowing the edge of the guard 2 to be easily located within the slot 44.

[0019] The clip 26 is securely located over the edge 32 of the gutter 30 on the opposite side of the gutter 30 to the clip 28. A resilient flange portion 54 extends over the gutter edge 32 and grips this edge of the gutter securely. A upwardly extending strip 56 is located inside the gutter 30 is formed with a slot 58 and has two upwardly extending resilient elongate members 60 and 62 spaced apart from one another by a slot 58. The slot is arranged to receive the downwardly extending wall 24 of the gutterguard 2. This wall 24 is securely located between the elongate members 60 and 62.

[0020] Referring to figures 2 and 3 the gutterguard 2 is securely located within the clips 26 and 28 over the gutter 30 in this direction. In use rainwater falls onto the gutterguard 2 and is directed by the angled walls 6 and 22 over the downwardly extending wall 24, into the gutter. The angled wall 6 and lip 10 prevent water being forced over this edge 12 of the gutterguard 2 and into the gutter 30. The arrangement of the clips 26 and 28 ensures that the plate 4 is positioned over the gutter 2 at a slight angle to the horizontal, sloping toward the curved section 22.

[0021] Advantageously this provides a slight fall which directs water towards the curved portion 22 and onto the downwardly extending wall 24 of the gutterguard. The surface tension effect ensures that the water or a substantial amount of the water falling onto the gutterguard 2 clings to the wall 24 and falls into the gutter 30. Any debris such as leaves or moss is not able to cling to the wall 24 and falls off the gutter guard at the curved portion 22. The guard 2 may be formed from resilient materials which assist in maintaining its location within the clips 26, 28.

[0022] Advantageously the use of resilient clips 26 and 28 allows the gutterguard 2 to be used with any type of gutter without the need to utilise any fixings to the structure of the building to which the gutter is attached. This enables the gutterguard 2 to be fitted simply and quickly to any gutter.

Claims

1. A guard for protecting guttering comprising an elongate plate for covering the open face of a gutter said plate having two opposite side edges, at least two clips for securing the guard to the gutter, wherein one end of the plate is formed with an inwardly extending lip, the edge of said lip being located, in use, within or over said gutter, said panel being angled towards said lip and attached thereto by a curved, substantially u shaped section such that in use the guard encourages water to run along its surface to said lip and into said gutter.

2. A guard according to claim 1 wherein said guard is provided with a coating to reduce the water surface surface tension effect and encourage water to cling to its surface.

3. A guard according to claim 1 or claim 2 wherein the edge of said lip is retained in a slot formed between two resilient members of one of said clips.

4. A guard according to any one of the preceding claims wherein the panel is integrally attached to the lip.

5. A guard according to any one of the preceding claims wherein the guard is formed from a resilient material.

6. A guard according to any one of the preceding claims wherein said other side edge is located within a second clip and located against the wall to which the gutter is fixed.

7. A guard according to any one of the preceding claims wherein each of said clips are attached to opposite edges of the gutter and guard.

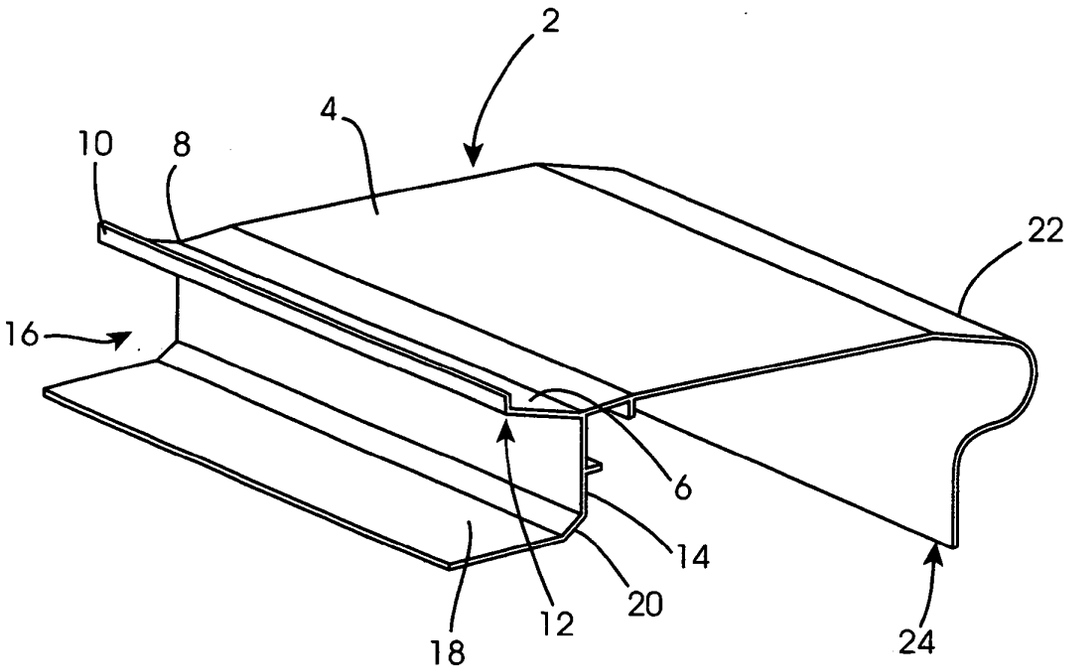

Fig. 1

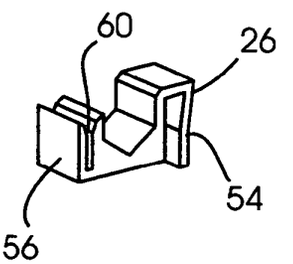

Fig. 1a

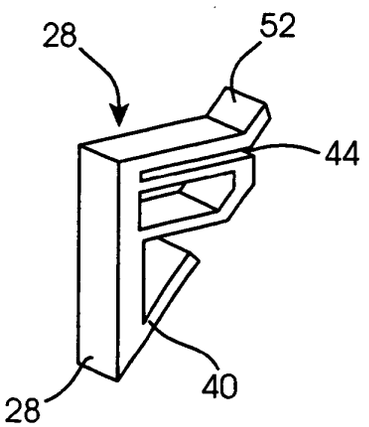

Fig. 1b

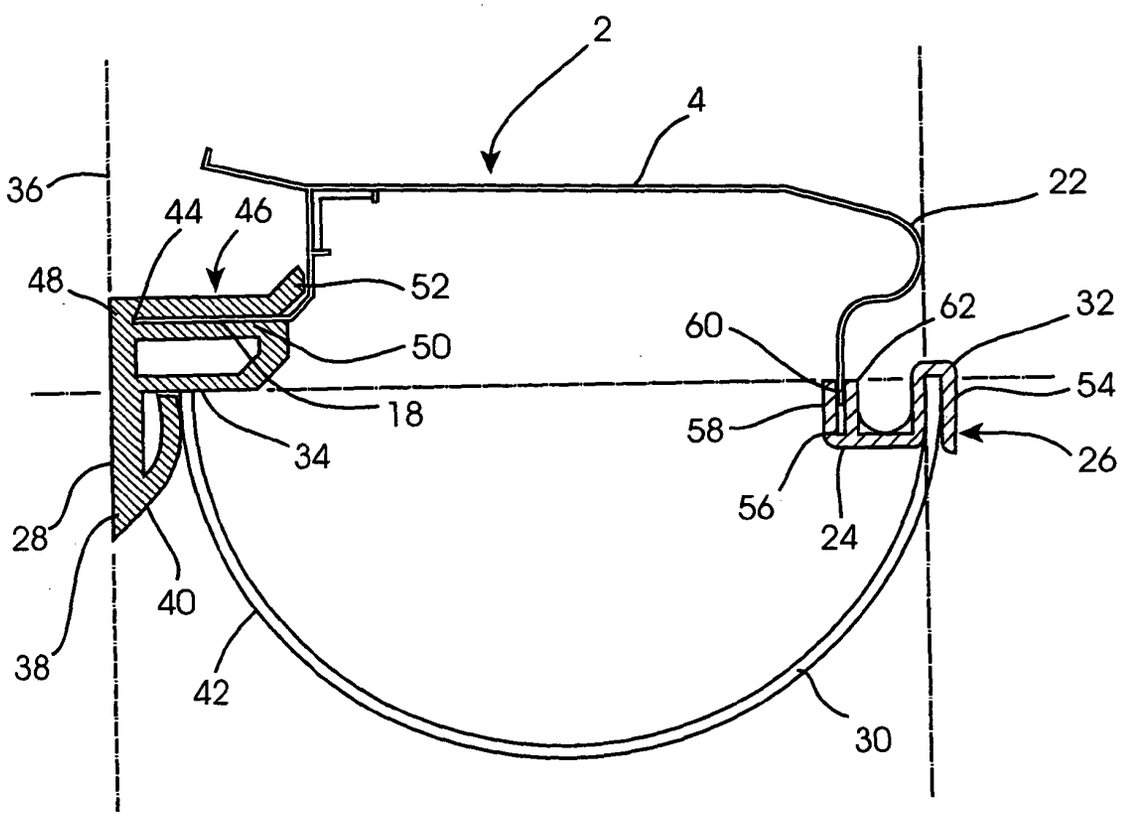

Fig. 2

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EUROPEAN SEARCH REPORT

Application Number
EP 04 01 2394

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 6 453 622 B1 (WALTERS) 24 September 2002 (2002-09-24)	1,3-6	E04D13/076
Y	* column 3, line 40 - line 52 *	2	
A	* column 5, line 24 - column 6, line 48; figures *	7	
X	DE 298 23 421 U (KLÖCKNER) 2 June 1999 (1999-06-02)	1,3-7	
A	* column 4, paragraph 2 - paragraph 3; figures *	2	
Y	US 2002/152692 A1 (BAHROOS ET AL.) 24 October 2002 (2002-10-24)	2	
A	* page 1, paragraph 9; figures *	1	
A	US 5 845 435 A (KNUDSON) 8 December 1998 (1998-12-08) * column 4, last paragraph - column 6, paragraph 3; figures 8-10 *	1,4-6	
A	US 2002/069594 A1 (SWEET) 13 June 2002 (2002-06-13) * abstract; figures *	1,3-5	TECHNICAL FIELDS SEARCHED (Int.Cl.7) E04D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	8 September 2004	Righetti, R

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 04 01 2394

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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