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(71) Applicant: **Permaroof (UK) Limited**
Alfreton (GB)

(72) Inventor: **Parkins, Adin**
Alfreton
Derbyshire, DE55 7RA (GB)

(74) Representative: **Sales, Robert Reginald**
Swindell & Pearson
48 Friar Gate
Derby DE1 1GY (GB)

(54) Mounting assembly for roof covering

(57) An assembly 10 for mounting a flat roofing material 12 on a building 14. For edges of the building 14 where there is no gutter, the assembly 10 provides an upstanding edge 17 on top of the material 12, formed by a hollow rectangular box section part of a extruded retaining member 18, with a planar strip 22 extending from the retaining member 18 to overlap the side of the building 14 and be mountable thereto. For the side of the building 14 with a gutter 16, a retaining arrangement 34 is provided with a first component 36 mountable to the building and a second component 38 mountable to the component 36 by a male projection 56, to trap the roofing material 12 therebetween and retain it in position.

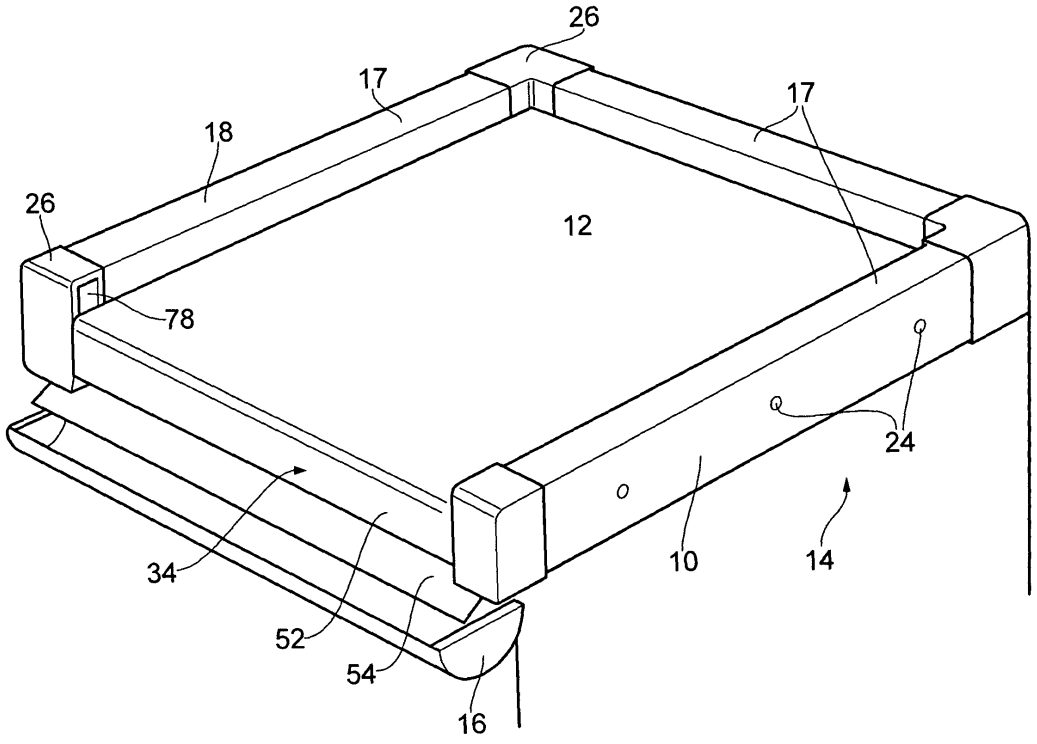

FIG. 1

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Description

[0001] This invention concerns mounting assemblies, and particularly but not exclusively assemblies for mounting a roofing material on a fixture.

[0002] To date when mounting a flexible roofing material on a building for instance on a flat roof, it is usual to provide fixings extending through the material. This can lead to weaknesses in the material and also potential ingress of water. One system used for mounting roofing materials is to provide wooden battens either located above or below the material. This system requires fixings to pass through the material, and in time such battens tend to rot.

[0003] According to the present invention there is provided an assembly for mounting a roofing material on a fixture, the assembly including an elongate retaining member, which retaining member comprises a first part locatable on the material on top of the fixture extending along an edge of the fixture to retain the material thereon, and a second part engageable against the material extending along said edge of the fixture and on the side of the fixture, the second part being mountable to the fixture.

[0004] The second part may be mountable to the fixture below a lower edge of the material.

[0005] The retaining member may have a substantially constant cross section, and may be formed as an extrusion. The retaining member may be made of plastics material, and may be made of PVC.

[0006] The first part of the retaining member may be hollow, and may be of substantially rectangular cross section. The second part of the retaining member may be substantially planar.

[0007] The invention further provides an assembly for mounting a roofing material on a fixture, the assembly including an elongate retaining arrangement which includes a first component which is mountable to the fixture extending along the side thereof adjacent an upper edge of the fixture, with roofing material on top of the fixture extending over the upper edge and over an upper part of the first component, the elongate retaining arrangement also including a second component which is engageable with the first component so as to retain roofing material extending therebetween.

[0008] Respective cooperative locking formations may be provided on the first and second components. The locking formations may be provided towards lower ends of the first and second components. The locking formations may be automatically inter engageable upon being brought together.

[0009] The locking formations may include respective male and female members. The male member may have an enlarged distal head which is locatable in a recess of the female member, with the recess having an opening such that the male member and/or opening have to deform for the male member to pass into the recess.

[0010] A lip may be provided along an upper part of the first component, and an upper part of the second component may be locatable immediately beneath the lip.

[0011] A deflector may be provided along a lower part of the second component to deflect water away from the fixture.

[0012] The retaining arrangement may have a substantially constant cross section. The components of the retaining arrangement may be formed as extrusions, and may be made of plastics material such as PVC.

[0013] The assembly may include one or more elongate retaining members and one or more elongate retaining arrangements.

[0014] One or more corner members may be provided for joining together respective elongate retaining members and/or arrangements.

[0015] Cap members may be provided for closing ends of the corner members and/or ends of elongate retaining members.

[0016] Joint cover members may be provided for covering joints between adjacent elongate retaining elements. The cover members may be configured to engage with the retaining members, and may include formations for retaining the cover member on the retaining members.

[0017] The invention also provides an assembly for mounting a planar roofing material on a fixture, the assembly including an elongate retaining arrangement as hereinbefore defined for each side of the roof which has a rain gutter, and an elongate retaining member as hereinbefore defined for each other side of the roof.

[0018] Corner members may be provided engageable with the respective elongate retaining member and/or elongate retaining arrangement at each corner of the building.

[0019] Embodiments of the present invention will now be described by way of example only and with reference to the accompanying drawings, in which:-

Fig. 1 is a diagrammatic perspective view of a roof incorporating a mounting assembly according to the invention;

Fig. 2 is a diagrammatic perspective view of part of a further mounting assembly according to the invention;

Fig. 3 is a diagrammatic perspective view illustrating part of the assembly of Fig. 1 being assembled;

Fig. 4 is a diagrammatic end sectional view of a first component of the assembly of Fig. 1;

Fig. 5 is an end view of the first component;

Fig. 6 is an end view of a second component which can also be seen in Fig. 2;

Figs. 7 and 8 are end views of further cooperating components of the arrangement of Fig. 1; and

Figs. 9 to 11 are diagrammatic perspective views of still further components of the assembly of Fig. 1;

[0020] Fig. 1 shows an assembly 10 for mounting a roofing material 12 on a flat roof of a fixture such as a building 14. Such material 12 may comprise a rubber based membrane which may be adhered to the building 14 or for instance retained thereon on by ballast lying thereon. A gutter 16 is provided on one side of the building 14.

[0021] The assembly 10 provides an upstanding edge 17 along the other three sides of the building 14. The edge 17 is provided by three lengths of an extruded retaining member 18 which may be made for example of a plastics material such as PVC. The retaining member 18 has a generally L-shaped configuration with a shorter limb of the L being provided by a hollow rectangular box section 20, and the other limb by a planar strip 22.

[0022] The box section 20 locates on top of the material 12, which material 12 then overlaps onto the side of the building 14 for a short distance, and is overlaid by the strip 22. The strip 22 is mounted to the building 14 as shown for example by three screws or nails, and hole covers 24 may be provided to cover the ends of the screws/nails.

[0023] Outside corner members 26 are provided which have two planar outer strips 28 perpendicular to each other, spaced from two inner shorter planar strips 30 by a L shape cover part 32. The corner members 26 are of a size to slidingly locate over the ends of adjacent perpendicular retaining members 18.

[0024] On the side of the building 14 with the gutter 16 an elongate retaining arrangement 34 is provided, which includes first and second components 36, 38. Both of the components 36, 38 are formed as extrusions for example of PVC. The first component 36 is mountable to the side of the building 14 immediately below the top thereof.

[0025] The component 36 has three hollow compartments 40, 42, 44 one below each other from the top. A downwardly curving outwardly extending lip 46 is provided at the top of the uppermost compartment 40. The next compartment 42 is slightly inwardly recessed and is smaller. In use a screw or nail is provided extending through the compartment 42 to mount the component 36 on the building 14. The recessing of the compartment 42 receives the head of the screw or nail. Beneath the lowermost compartment 44 a recess 48 is provided with lips 50 forming a resilient outward facing opening to the recess 48.

[0026] The second component 38 has an upper planar part 52, and a lower slightly shorter planar part 54 inclined outwardly and downwardly relative to the part 52 in use as shown in Fig. 8. The lower part 54 acts as a deflector for water to urge the water into the gutter 16. A male extension 56 is provided at the meeting of the upper and lower parts 52, 54, and extends perpendicular to the upper part 52. The male extension 56 has an arrowhead 58.

[0027] In use, and as best seen in Fig. 3, the first component 36 is mounted to the building 14, and the material 12 extends thereover. The second component 38 is then brought into engagement urging the material 12 against the first component 36. The top of the upper part 54 is located beneath the lip 46, and the second component 38 is pushed towards the first component 36 such that the male extension 56 locates in the recess 48. The shape of the arrowhead 58 and the lips 50 provide for an automatic interengagement therebetween. This arrangement clamps the material 12 in place.

[0028] Fig. 6 shows a clip 60 usable when joining together two lengths of retaining member 18 as shown in Fig. 2. The clip 60 has a generally n shape, but with one limb 64 significantly longer than the other 66 to correspond to the sectional exterior shape of the retaining member 18. Sprung lips 68 are provided on the inside of the lower limbs 64, 66 on the n, to retain the clip 60 on the retaining members 18 once in position.

[0029] Fig. 9 shows an inside corner member 70, for internal right angles between two walls, as illustrated in Fig. 2. Here the inside corner member 70 has longer perpendicular inner planar sections 72 and shorter perpendicular outer planar sections 74 interconnected by an L shape cover part 76. The inside corner member 70 is of a size to slidingly locate over the ends of adjacent perpendicular retaining members 18.

[0030] Fig. 11 shows an end cap 78 with a planar face 80 and three tapering resilient fingers 82 on an inner side of the face 80. The end cap 78 can close the end of the box section 20 in a friction fit, or a part of the corner members 26, 70 when adjacent an elongate retaining arrangement 34, as shown in Fig. 1. Different shaped end caps may be provided if required.

[0031] When installing assemblies according to the invention, sealant may be provided at a number of locations such as between the first and second components 36, 38 adjacent the lip 46. Sealant would usually also be provided beneath the box sections 20 of the retaining members 18 and in particular to prevent debris becoming trapped beneath the box section 20 and material 12. Sealant could also be used between the corner members 26, 70 and the retaining members 18 or retaining arrangements 34. Sealant could be used to close for instance open ends of lengths of the retaining member 18, and could be provided around the joining clips 60.

[0032] There is thus provided a mounting assembly for roofing material usable for flat roofs and other roofs which provides for a number of advantages. The assembly generally removes the need for any fixings to pass through the roofing material, thereby avoiding the potential problems outlined above. Different components of the assembly can be used as required for different shapes and sizes of roofs. The assembly can readily be installed to provide long term and reliable operation. Such assemblies can be fitted on newly built roofs, or can readily be retrofitted to existing roofs.

[0033] Various modifications may be made without departing from the scope of the invention. For instance the

components may have a different shape and/or be made of different materials. Whilst described essentially in relation to use on flat roofs, systems according to the invention could be used for mounting materials in a number of different locations.

[0034] Whilst endeavouring in the foregoing specification to draw attention to those features of the invention believed to be of particular importance it should be understood that the Applicant claims protection in respect of any patentable feature or combination of features hereinbefore referred to and/or shown in the drawings whether or not particular emphasis has been placed thereon.

Claims

1. An assembly for mounting a roofing material on a fixture, the assembly including an elongate retaining member, which retaining member comprises a first part locatable on the material on top of the fixture extending along an edge of the fixture to retain the material thereon, and a second part engageable against the material extending along said edge of the fixture and on the side of the fixture, the second part being mountable to the fixture.

2. An assembly according to claim 1, in which the second part is mountable to the fixture below a lower edge of the material.

3. An assembly according to claims 1 or 2, in which the retaining member has a substantially constant cross section, and may be formed as an extrusion.

4. An assembly according to any of the preceding claims, in which the first part of the retaining member is hollow, and may be substantially rectangular in cross section.

5. An assembly according to any of the preceding claims, in which the second part of the retaining member is substantially planar.

6. An assembly for mounting a roofing material on a fixture, the assembly including an elongate retaining arrangement which includes a first component which is mountable to the fixture extending along the side thereof adjacent an upper edge of the fixture, with roofing material on top of the fixture extending over the upper edge and over an upper part of the first component, the elongate retaining arrangement also including a second component which is engageable with the first component so as to retain roofing material extending therebetween.

7. An assembly according to claim 6, in which respective cooperative locking formations are provided on the first and second components, in which locking formations may be provided towards lower ends of the first and second components, and/or which locking formations may be automatically inter engageable upon being brought together.

8. An assembly according to claims 6 or 7, in which the locking formations include respective male and female members, and in which the male member may have an enlarged distal head which is locatable in a recess of the female member, with the recess having an opening such that the male member and/or opening have to deform for the male member to pass into the recess.

9. An assembly according to any of claims 6 to 8, in which a lip is provided along an upper part of the first component, and an upper part of the second component may be locatable immediately beneath the lip.

10. An assembly according to any of claims 6 to 9, in which a deflector is provided along a lower part of the second component to deflect water away from the fixture.

11. An assembly according to any of claims 6 to 10, in which the retaining arrangement has a substantially constant cross section, and in which the components of the retaining arrangement may be formed as extrusions.

12. An assembly according to any of claims 6 to 11 when dependent on any of claims 1 to 5, in which the assembly includes one or more elongate retaining members and one or more elongate retaining arrangements.

13. An assembly according to claim 12, in which one or more corner members are provided for joining together respective elongate retaining members and/or arrangements.

14. An assembly according to claims 12 or 13, in which cap members are provided for closing ends of the corner members and/or ends of the elongate retaining members, and joint cover members may be provided for covering joints between adjacent elongate retaining members, the cover members may be configured to engage with the retaining members, and may include formations for retaining the cover member on the retaining members.

15. An assembly for mounting a planar roofing material on a fixture, the assembly including an elongate retaining arrangement according to any of claims 6 to 14 for each side of the roof which has a rain gutter, and an elongate retaining member according to any of claims 1 to 5 for each other side of the roof.

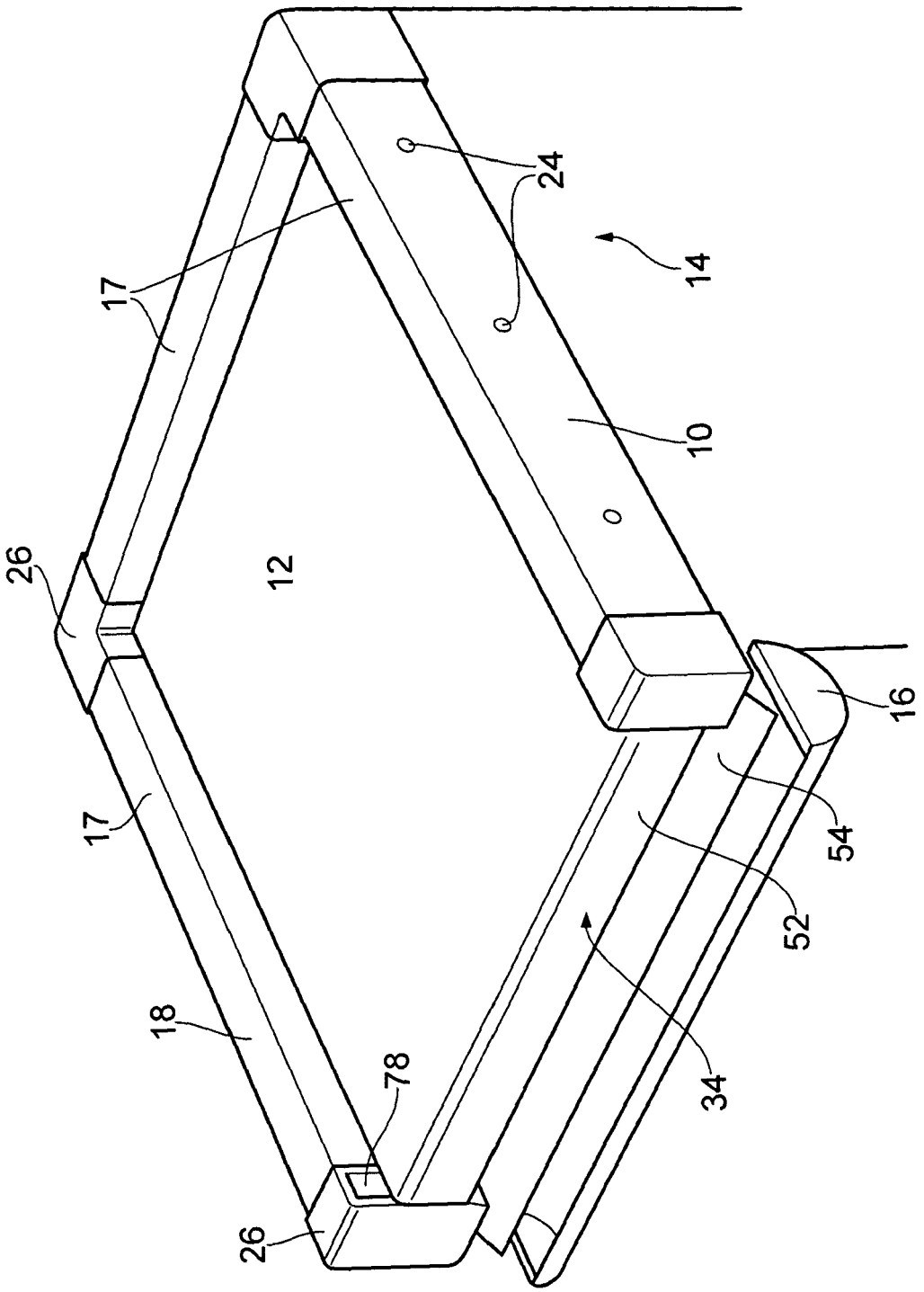

FIG. 1

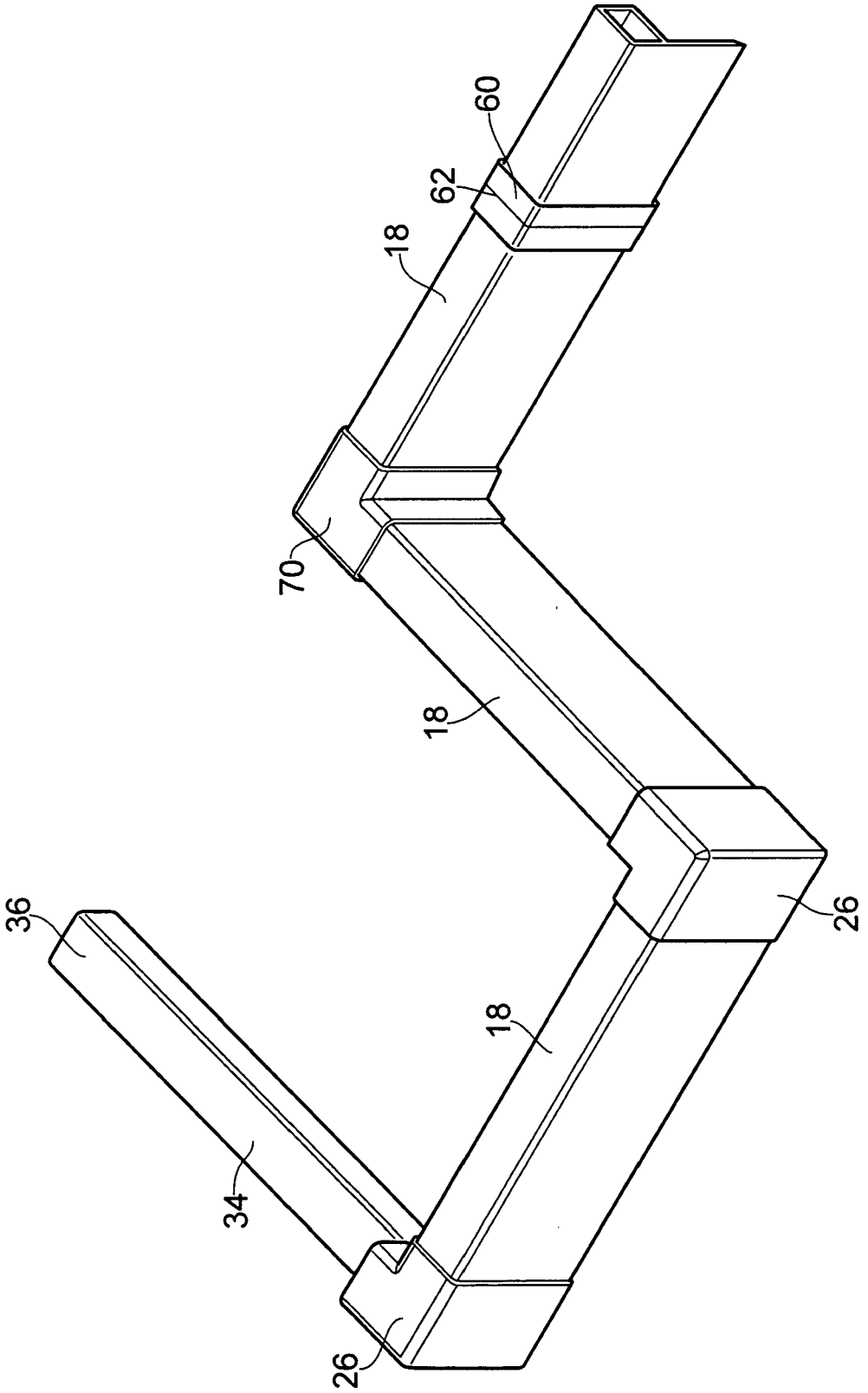

FIG. 2

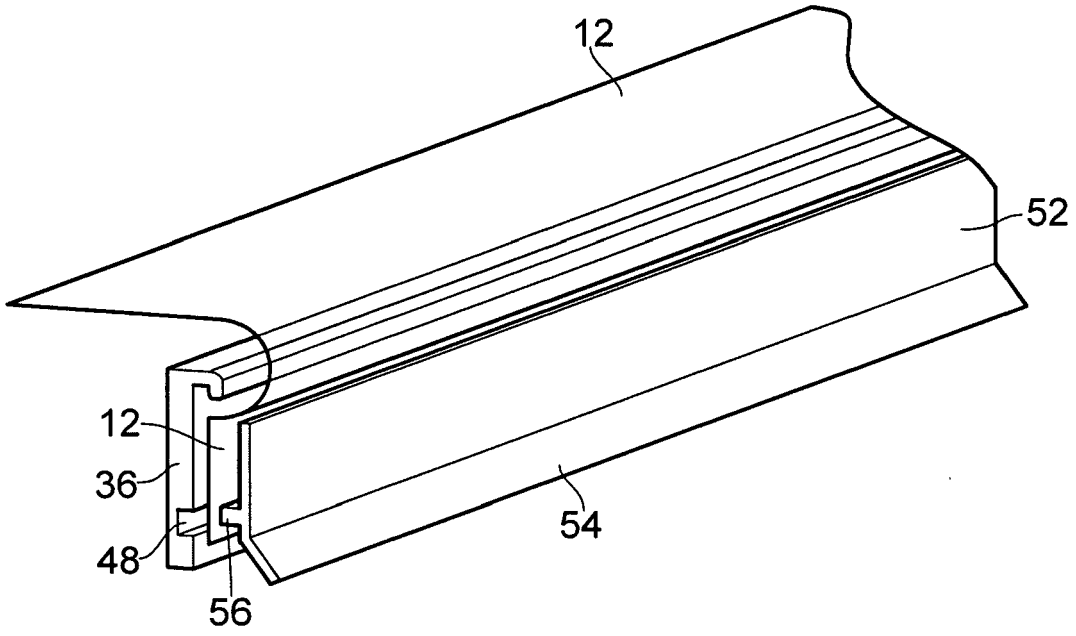

FIG. 3

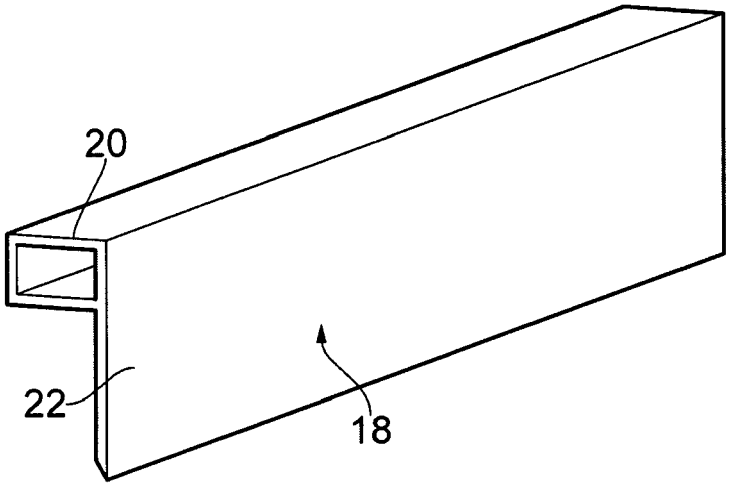

FIG. 4

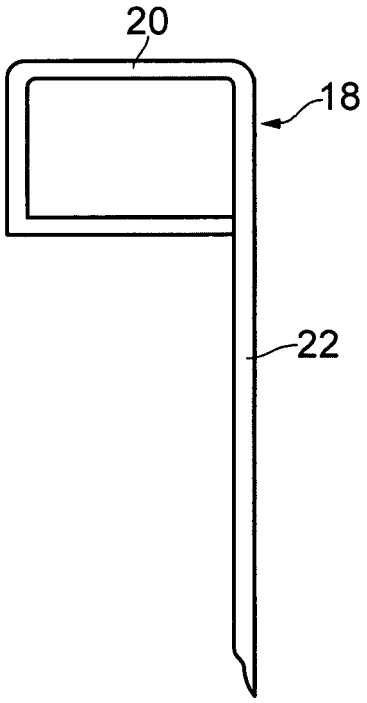

FIG. 5

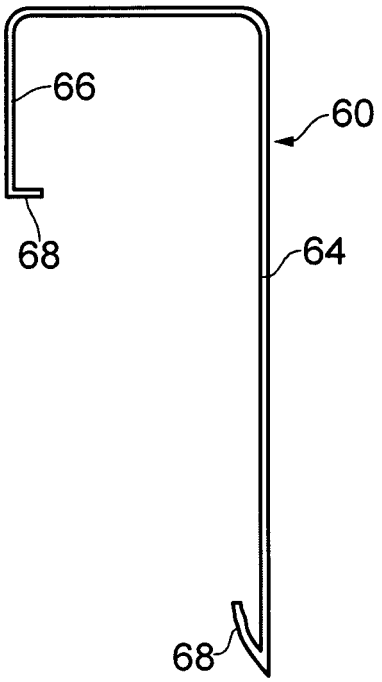

FIG. 6

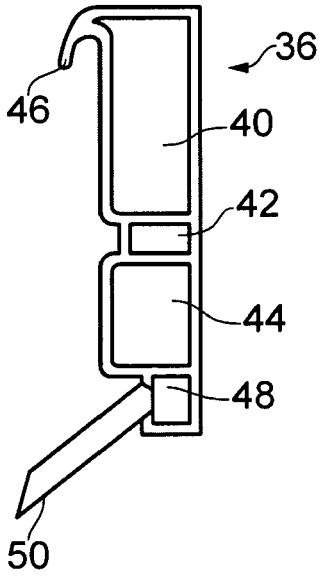

FIG. 7

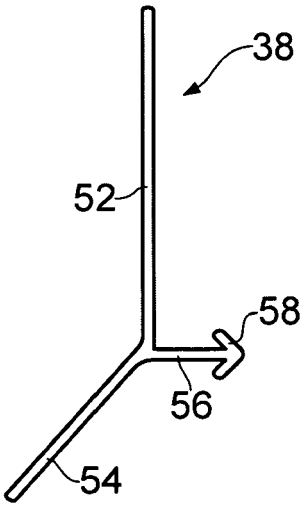

FIG. 8

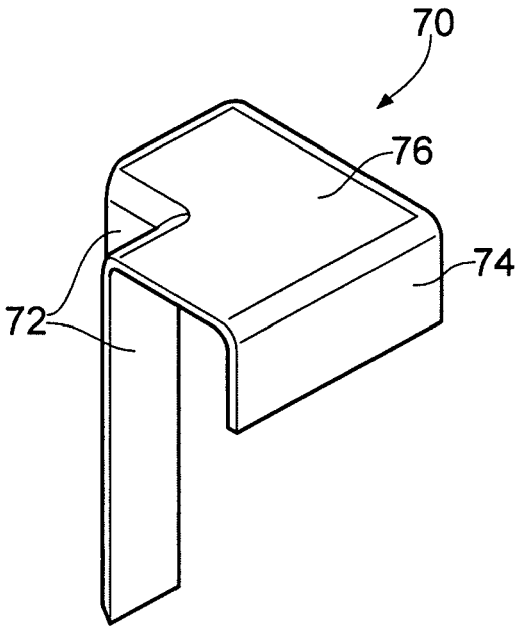

FIG. 9

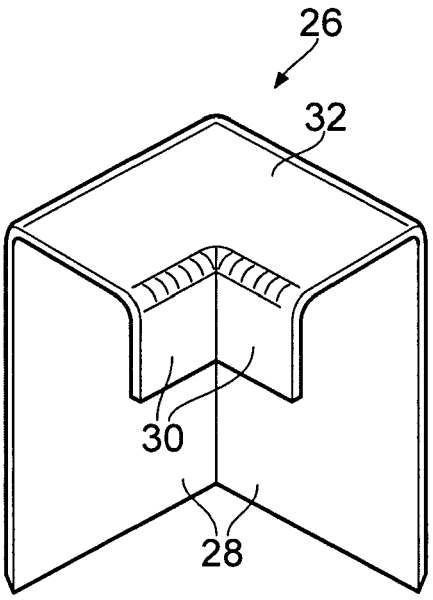

FIG. 10

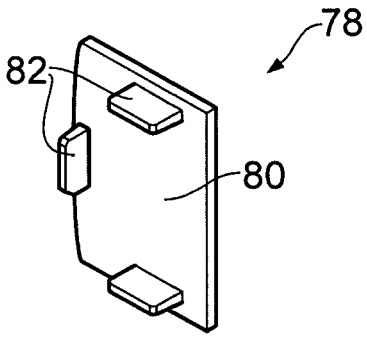

FIG. 11