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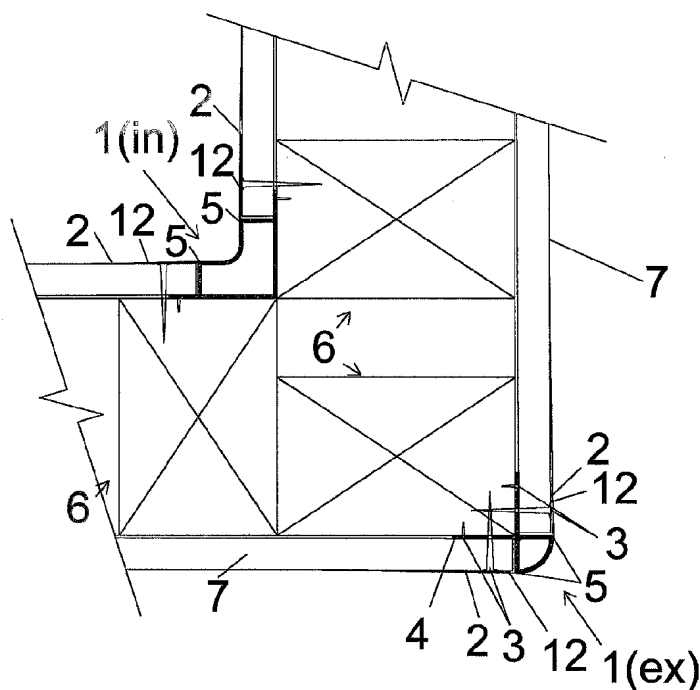
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(54) Title: SHAPING MEMBER AND METHOD



(57) Abstract: The invention relates to the provision of various shapes integral to surface members in architectural walls and ceilings such as building board materials, plaster and cement render. A first aspect relates to a shaping member for forming a smooth and continuous joint between two dissimilar materials in such a manner that the said joint is not normally apparent to the human eye with the intention of shaping the said surface member for the purpose of housing or augmenting the functioning of utilitarian devices such as light fittings, air conditioning registers and/or to provide decorative forms. An advantage of the present invention is that architectural walls and ceilings may be shaped into specific forms in order to direct the emission of light from associated light fittings and the flow of air from ventilation devices, etc. The second aspect relates to the integration of the said shaping member with supporting members and suspension members with which to suspend or otherwise support surface members with the advantage that framing members are reduced in number, construction time reduced and ease of construction increased to achieve the desired aesthetic.

WO 2004/094750 A1

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35 **Shaping Member and Method**

40 The following statement is a full description of this invention, including the best method of performing it known to me:

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SHAPING MEMBER AND METHOD

This invention relates to the provision of devices for the shaping of surface members such as wall or ceiling surfaces for the purpose of housing or otherwise augmenting the functioning of various utilitarian devices.

5 In one aspect, the present invention relates to a method and apparatus for forming specific shapes in surface members (such as wall or ceiling linings) or in the surface of concrete slabs and also to an apparatus and method for housing light fittings, air conditioning registers and other devices used in architectural interiors, which is installed by fixing the same shaping member to the front or rear surface of the same surface member.

10 In another aspect, the present invention relates to a method and apparatus for suspending and shaping surface members, including building boards such as plasterboard or fibre cement sheeting.

15 In another aspect, the present invention relates to a method and apparatus for forming specific shapes in concrete slabs (herein called surface members) and also to an apparatus and method for housing light fittings, air conditioning registers, fire extinguishing services and other devices used in architectural interiors, which is preferably installed by using the same shaping member as form work around which the concrete is poured.

20 Most surface mounted, recessed or semi recessed light fittings and other devices currently available are obviously apparent in the wall or ceiling lining within which the same device is fitted and are obvious attachments to the wall or ceiling. One disadvantage of such a light fitting or device is that a separate housing is necessary to contain the contents of the same fitting and the fitting is perceived as an attachment to the wall or ceiling rather than an integral part of the wall or ceiling (as devices moulded into a motor vehicle dashboard are integral in its form for example and are visually more satisfying to the human eye). A standard type of recessed light fitting has the disadvantage of drawing the users attention to the light fitting rather than to the area illuminated by the same fitting, especially when the exposed parts of the said fitting are of a different colour to the ceiling in which they are mounted. In general, most recessed or semi recessed light fittings available detract from the visual amenity of the architectural interiors in which they are used and very often make ceilings appear cluttered. When light fittings or other devices recessed into steel or timber framed walls or ceilings are larger than the distance between the framing elements that support the surface member (building board) of the same wall or ceiling, the same framing is normally modified to accommodate the fitting. This is generally labour intensive and requires more framing members than would otherwise be necessary. In buildings such as office towers the lighting systems, air conditioning duct work and other services are often installed above a suspended ceiling which is normally hung off a concrete slab. This has the advantage of requiring a framing system for the same ceiling, another system for the lighting, another system for the ductwork, hydraulic system and other services. All the systems are considered in isolation and then made to fit together generally between the said suspended ceiling and the concrete slab over. It is a crude and out dated way of installing services to a building.

45 These problems are overcome by the present invention, which provides a novel method of creating forms in standard wall or ceiling linings such as plasterboard, fibrous plaster, compressed fibrous cement, medium density fibre board and other fibre boards, cement render and set plaster as well as in concrete slabs or precast

concrete systems. The said forms created may become an integral part of a utilitarian or decorative fitting, such as the housing and/or reflector of a light fitting. This is achieved by forming a step parallel to the outside edge of the said shaping member and perforating, segmenting, or otherwise forming an arrangement of penetrations and or incisions in the material of the said shaping member between the said step and the said outside edge (referred to in this document as the perforated fixing flange) in such a way that it can be covered with a settable filler material or standard jointing compound (usually plaster based and referred to in this document as a settable compound or filler material) or cement render so as to create a smooth joint between the present invention and the surface member of the same wall or ceiling. The rear face of the perforated edge of the present invention is designed to be fixed to the surface of the surface member such as a ceiling or wall lining into which the shaping member is to be installed preferably with screws, clouts or clips before the settable compound or cement render is applied.

The same effect may also be achieved by securing to the rear face of the said surface member a fixing flange which is formed into or attached to the shaping member in such a way that it protrudes proud of the exposed face of the same surface member when installed so as to facilitate the application of a settable compound to cover any gap between the same shaping member and the same surface member as well as to form a smooth and continuous surface between the two said members.

The said connection allows the exposed surface of the wall or ceiling lining to be continuous with the exposed surface of the present invention and therefore making the same connection almost unapparent to the human eye. The most exposed surface of the present invention can thus be painted the same colour as the wall or ceiling lining into which it is installed. As the shaping member forms part of the ceiling or wall lining it can be said that the same wall or ceiling lining, due to the present invention, may be shaped to form part of a light fitting designed in accordance with the present invention which is a feature that is both visually satisfying to the human eye and in the case of recessed ceiling fittings, produces a low level of glare from the said light fitting. The same ceiling or wall so formed by this component of the said light fitting also has the dual function of acting as the reflector of the light fitting or as an additional reflector for the light fitting and therefore resulting in an economy of means.

As with the connection of all said shaping members with the said settable compound a fine line may be apparent at the edge of the said shaping member depending on the way the settable compound was applied and sanded. If it is preferable that no said fine line is apparent after having been painted, additional settable compound may be applied to the line and sanded after drying and additional coats of paint may be applied and sanded between coats after drying.

Another aspect of the present invention relates to the provision of supporting members integral to the present invention and applicable when the same invention is wider or longer than the distance between the framing members supporting the said surface member (such as plaster board) and thus the surface member will not be strong enough to support the present invention which will need to be supported by means of suspension rods or framing members or the like. In this case a different method of construction is employed in which the present invention is secured in its final position before the surface member is fixed in position. The framing members supporting the said surface member must also be in position prior to the installation

of the same surface member. The same surface member is fixed to the support members integral to the present invention and to the said framing members. The present invention thus has the additional function of supporting the said surface member in a similar manner to the way the same surface member is supported by the said framing members.

Also, other advantage of the present invention when used as a structural support member for the said surface member of a ceiling is that several units of the same invention may be installed in a variety of orientations within the one installation while maintaining a consistent direction for the general ceiling framing.

When the said shaping member is used as a component of a recessed light fitting the visual impact of the same light fitting when installed is subtle and attention is drawn to the area illuminated rather than to the said fitting itself. The visual impact of the same light fitting when not in use is aesthetically appealing and adds to the visual amenity of the architectural interior wherein installed.

One method of joining the present invention to ceiling or wall linings has similarities to the method used to create straight and durable corners in plasterboard walls lining in which a perforated length of metal (called a setting bead) with a cross section in the approximate shape of a right angle, is secured with screws or clouts to the external corners of plasterboard lined walls commonly used in architectural applications. In this case the setting bead is completely covered with a plaster-based settable compound, which adheres to the plasterboard wall and the setting bead. The perforations in the setting bead facilitate adhesion to the jointing compound and to the wall or ceiling lining. The setting bead is normally completely covered with jointing compound (settable material) that is easily sanded to provide a smooth finish. Tradesmen are accustomed to this method of construction and the same skills can therefore be easily applied to the said shaping members.

In one form of the invention the shaping member will be seen at the said junction, when installed, to be continuous with the surrounding wall or ceiling surfaces to which it is connected. This is made possible by the configuration of the edge of the said shaping member which comprise a perforated edge, which can be of varying width and stepped down along its length in direction toward the surface to which it is connected and thereby facilitating the application of the jointing compound or cement render. The application of the said jointing compound or said cement render may be completed with the use of a steel trowel or other device preferably with a straight edge, the edge of which may be dragged along the edge of the said step along the perforated edge strip of the said shaping member whilst remaining in contact with the surface of the same surface member during the operation. The settable material (jointing compound) or cement render would thus fill the perforations in the edge strip of the shaping member and ensure good bonding between the same shaping member and the surrounding surface member. The surface of the said shaping member, which is finished in line with the surrounding surfaces by virtue of the above procedure, may be formed into a shape necessary to contain or support or otherwise be attached to the other elements of the same device (such as a lamp holder for example).

In another form of the invention, where the said shaping member is fixed to the rear face of the said surface member, the shaping member will be seen, when installed, to be continuous with the surrounding surface member, such as wall or ceiling surfaces, to which it is connected. This is made possible by the configuration of the said shaping member, which is shaped so as to protrude proud (herein after the

exposed corner of which shall be called a proud protrusion) of the face of the surface member in such a way that the application of the said jointing compound or said cement render may be completed with the use of a steel trowel or other device preferably with a straight edge, the edge of which may be dragged along the part of the said shaping member protruding proud (called the proud protrusion) of the said shaping member whilst remaining in contact with the surface of the same surface member during the operation. The settable compound (jointing compound) would thus fill the gap between the edge of the shaping member and the adjoining surface member and also cover the surface of the same surface member surrounding the joint with the said shaping member and form a preferably smooth and continuous surface between the two said members. In order to ensure good bonding between the same shaping member and the surrounding surface member screws or other fixing devices should preferably be used to securely connect the same surface member with the same shaping member. When used with a cement render surface member, the cement render should preferably be applied to the substrate and be in line and in contact with the same proud protrusion in the same shaping member. The surface of the said shaping member, which is finished in line with the surrounding surfaces by virtue of the above procedure, may be formed into a shape necessary to contain or support or otherwise be attached to the other elements of the same device (such as a lamp holder for example).

In another form of the invention, the edge of the step of the said perforated edge, otherwise known as the proud protrusion, may be formed into a curved surface of very small radius (for example 1 mm) in order to allow the surface of the surface and shaping members such as a wall or ceiling lining to change planar direction at a relatively sharp angle (for example 90 degrees) at the junction of the said shaping member with the jointing compound applied to the surface member (the same shaping member may form the reflector and/or housing to a light fitting for example). This type of small radius junction not only allows for a different aesthetic as described in the first form of the invention described above but also allows for the fitting of a light diffuser or other member that may be positioned in line with the surface of the said wall or ceiling thus allowing for an elegant aesthetic. The said diffuser or other member would therefore appear as an inlay in the surface of the wall or ceiling thus reducing the visual impact of the said light fitting in terms of the number of components exposed to view. Also, the shaping member may form the reflector and housing for the light fitting.

In another form of the invention incorporating the same small radius junction as described above, a light diffuser can also be positioned so as to be recessed into the said wall or ceiling surface at a distance from the same junction and thereby further reducing glare and directing the light output onto a smaller area.

In another form of the invention with the same small radius junction, a diffuser may be formed so as to project beyond the surface of the said wall or ceiling in a curved or angular shape so as to allow the light to be diffused over a greater area than the previously described forms of the invention.

In another form of the invention with a small radius junction described above, a rectilinear shape may be formed in the said surface member in such a manner that a concave diffuser may be positioned behind the opening so created by the same small radius junction type shaping member and sit entirely within the same shaping member along with the lamp(s) and electrical gear and so configured to allow the entire face of the diffuser to be illuminated.

In another form of the invention and applicable to all of the forms of the invention described in this document which incorporate the said perforated edge strip type fixing flange and are circular when viewed looking toward the exposed face (with the exception of shaping members designed to act as structural support members herein described), L-shaped cleats may be formed into or attached to the said perforated edge of the said shaping member in such a manner that when they are inserted into a suitably shaped cut out in the said building board type surface members, the same shaping member may be rotated in such a manner that the L-shaped cleats overlap the same shaping member, allowing for the insertion of screws into designated holes in the said perforated edge to be drilled through the same surface member into the same L-shaped cleat. The same L-shaped cleat ensures that the same surface member is thoroughly secured relative to the said shaping member and therefore any differential movement, such as that caused by thermal expansion and contraction of the surface member relative to the shaping member, will be constrained, preventing cracking of the said filler material (settable compound), within normal operating conditions.

In another form of the invention and applicable to all of the forms of the invention described in this document incorporating the said perforated edge strip (with the exception of the form of the invention in which the said shaping members designed to act as structural support members herein described and also the form of the invention incorporating L-shaped cleats), spring metal cleats may be attached to the said perforated edge strip of the said shaping member in such a manner that when they are inserted into a suitably shaped cut out in the said building board type shaping members, the same spring metal cleats will deform during insertion and resume their original shape in such a manner that spring metal cleats overlap the same shaping member, allowing for the insertion of screws into designated holes in the said perforated edge to be drilled through the same surface member into a perforation in the same spring metal cleats. The same spring metal cleats ensures that the same surface member is thoroughly secured relative to the said shaping member and therefore any differential movement caused by thermal expansion and contraction of the same surface member relative to the same shaping member will be constrained, preventing cracking of the said filler material, within normal operating conditions.

In another form of the invention and applicable to all of the forms of the invention described in this document incorporating the said perforated edge strip (with the exception of the form of the invention in which the said shaping members designed to act as structural support members herein described and also the form of the invention incorporating L-shaped cleats and spring metal cleats), L-shaped, pivoting bracket may be attached to the said perforated edge of the said shaping member in such a manner that when they are inserted into a suitably shaped cut out in the said building board type surface members, the same L-shaped, pivoting bracket may be rotated with a screw driver or other tool in such a manner that L-shaped, pivoting bracket overlaps the same surface member, allowing for the insertion of a screw into the designated holes in the said perforated edge to be drilled through the same surface member into a perforation the same L-shaped, pivoting bracket. The same L-shaped, pivoting bracket ensures that the same surface member is thoroughly secured relative to the said shaping member and therefore any differential movement caused by thermal expansion and contraction of the same surface

member relative to the same shaping member will be constrained, preventing cracking of the said filler, within normal operating conditions.

In another form of the invention and applicable to all of the forms of the invention described in this document incorporating the said perforated edge strip (with the
5 exception of the form of the invention in which the said shaping members designed to act as structural support members and also the form of the invention incorporating L-shaped cleats, spring metal cleats and L-shaped, pivoting brackets herein
described), spring metal clips may be attached to the inside edge of the said perforated edge of the said shaping member in such a manner that when the present
10 invention is inserted into a suitably shaped cut out in the said building board type shaping members, the same spring metal clips will deform during insertion and resume their original shape in such a manner that spring metal clips put force on the same shaping member in order to hold the said shaping member still relative to the same surface member. The edge and the surrounding surfaces of the said cut out
15 are preferably to be covered with suitable adhesive before insertion of the present form of the invention into the said cut out. The same spring metal clips ensures that the same adhesive is allowed to dry in a manner such that the surface member is thoroughly adhered to the said shaping member and therefore any differential movement caused by thermal expansion and contraction of the same surface
20 member relative to the same shaping member will be constrained, preventing cracking of the said filler material, within normal operating conditions. The same spring metal clip may be attached to a cleat formed from the same shaping member with the advantage that fixing components such as rivets will not interfere or protrude into with the same surface member.

Note that standard filler material alone may prevent differential movement over the normal life of the invention if the said shaping member is relatively small. If the form of the invention is very small, the cracking in the said filler material due to differential movement may be so fine so as not to be apparent to the human eye especially
25 when painted and is therefore an acceptable form of the invention.

In another form of the invention and applicable to all of the forms of the invention described in this document, it may be necessary to accommodate differential movement between the said light fitting and the surrounding wall or ceiling surfaces to which it is joined if the size of the said light fitting is large enough to warrant the consideration of such differential movement. If the accommodation of the said
30 differential movement is warranted, special joints (to be referred to as "slip joints" in this document) may become necessary to allow for movement between the part(s) of the shaping member that is joined to the surface member and the main body of the device in question such as a light fitting. One form of slip joint that may be
35 incorporated in the present invention may comprise elongated openings in the main body of the same device into which is inserted metal pins, studs or threaded studs (for use with fastening nuts) attached to the shaping member that is connected to the surface member. The slip joint may be a similar system that would allow for the main body of the light fitting to expand or contract independently of the ceiling or the wall within a limited range of movement.

40 Adhering an elastic or flexible strip between the said shaping member and the body of the device in question may form another form of the said slip joint described above.

In this preferred form of the invention, the shaping member may be made of any suitable material, such as metal, moulded plastic, fibre cement or compressed fibre cement.

5 Also preferably, the perforations in the strip along the perforated edge (referred to in this document as the perforated fixing flange), designed to connect to the said surface member, may be made in various suitable shapes and sizes. The same perforated edge may also be segmented and / or have any variety of incisions or a combination of perforations and notches.

10 Preferably, the shaping member is formed of a material that is relatively thin compared to the surface member and strong in tension so that the penetration of the fixing devices such as self-tapping screws is facilitated. Fibre reinforced cast plaster is not an acceptable material for the current invention.

15 In a preferred embodiment, the said fitting is a light fitting, such as a dome with electrical gear, lamp and diffuser contained within the same dome, the body of the dome acting as the ceiling lining, the reflector and the housing, in part, for the same light fitting.

20 Also, in another form of the invention, the said shaping member may form the lighting pelmet surrounding the perimeter for a dome for use in a ceiling, the same pelmet forming an upturn in the same ceiling surface member and, as seen in plan view, be formed as a circle, oval, oblong or other shape with lighting device(s) fitted within the same pelmet to provide light to the said dome mounted above and enclosing the said pelmet.

25 In another form of the invention the said fitting is a light fitting formed into a rectilinear shape wherein it can be said that the fitting shapes the said surface member to form not only the housing and reflector of the said light fitting but also the support means of the diffuser. This may be achieved by forming ledges within either side of the said body of the said fitting upon which a light diffuser may rest. Electrical gear may be positioned within the same housing or located remotely from the same fitting. Perforations may be made within the same reflector / housing to secure

30 lamps, enable cable entries and provide for support structures.

In another form of the invention the said fitting is a light fitting formed into a recessed light fitting wherein it can be said that the fitting shapes the said surface member into a concave shape to form the housing and reflector of the said light fitting within which the electrical gear(s), lamp(s) and, if necessary, light diffusers are housed.

35 In another form of the invention the said fitting is a light fitting that shapes part of the wall or ceiling lining to form a convex protrusion in the same surface member and may preferably accommodate electrical gear(s), lamp(s) and diffuser(s).

40 A another aspect of the present invention and applicable to all of the forms of the invention described in this document, and depending on the size of the present invention, the present invention may form a structural member, when supported from other structural elements, capable of providing support to the said surface member and thereby facilitating installation and reducing the number of structural elements needed to support the said surface member (assuming that the surface member is a building board type member).

45 In alternatively preferred embodiments the said shaping member may form part of any type of vent such as an air conditioning outlet, a sprinkler, or any other fitting normally used in conjunction with and architectural elements including walls, ceilings or eaves linings.

In a broad form, one aspect of the present invention provides a method of forming shapes integral with the said surface member, which comprises the steps of:

- Cutting or preparing an opening in the said surface member.
- Covering the edge and surrounding surfaces in the proximity of the same opening with adhesive suitable to bond the said surface member with the said shaping member if necessary.

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Inserting and attaching (using constraining said spring metal clips plus adhesive, said spring metal cleats, said pivoting plastic cleats plus adhesive, said L-shaped cleats plus adhesive, other forms of cleat, clip, attachment device plus adhesive or adhesive only) the said shaping member within or about the said opening (the said shaping member has a flat perforated strip along its outside edge with a step along the side of the said perforated edge strip closest to the body of the said shaping member) in a manner whereby the inside surface of the said perforated edge is attached to the said surface member around and in line with the said opening and so that the same adhesive applied to the same opening is well connected to the said shaping member; and, after the said adhesive has set, providing a layer of settable material over the said perforated edge to the said step along the same perforated edge. Preferably, said shaping member is formed into any desired shape and becomes a continuation of the said surface member. Also the opening is formed of any desired shape, and upon which a shaping member may be attached normally of corresponding shape to the opening.

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Also preferably the said surface member is plasterboard, plaster, fibre cement, fibre reinforced board or a rendered surface, wherein the said settable material includes plaster, render, standard jointing compound (commonly available on the market) or other filler material.

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In the another aspect of the present invention the said fitting is a light fitting of other device with an elongated rectilinear or curvilinear opening with a length that exceeds the distance between the framing elements supporting the surface member such as a standard plasterboard or fibre cement ceiling lining. In this form of the invention, the said fitting may be used to not only shape the ceiling and form a reflector / housing or other form but also to provide support for plasterboard or fibre cement surface members where the same surface member is attached to the said perforated edge of the same fitting. This is achieved with the incorporation of a flange attached to the housing of the same fitting and positioned an appropriate distance from the said perforated edge so as to allow the surface member (if plasterboard or fibre cement) to be inserted between the two said members and screw fixed in position before adhesive and any said filler material is applied.

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Another aspect of the present invention provides a method of forming elongated or relatively large shapes within the said surface member, which comprises the steps of:

-Suspending the said shaping member preferably from adjustable suspension rods or support member so as to position the perforated fixing flange of the same shaping member to be in line with the exposed face of surface member.

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-Inserting and attaching the said plasterboard, fibre cement sheet or other building board like surface member between the said perforated fixing flange and the clamping flange attached to the shaping member and screw fixing the same surface member to standard ceiling framing appropriately positioned.

-Screwing self tapping screws through the same perforated fixing flange and the said surface member, into the same clamping flange attached to the shaping member;

and, providing a layer of settable material over the said perforated edge to the said step along the same perforated edge. Preferably, such housing (shaping member) is formed into a rectilinear shape and becomes a continuation of the said surface member suitable to house, for example, electrical gear and lamp as well as act as a reflector.

Also preferably the shape formed may appear as a rectilinear slot in the said surface member (ceiling), the inside face of which may be painted the same colour as the rest of the same ceiling. Light diffusers may also be incorporated and positioned in line with the surface member, recessed in from the surface member or protruding out from the face of the surface member and lighting devices including electrical gear may be housed within the same shaping member formed into the said rectilinear slot or may be housed in an ancillary housing.

Also in another form of the invention the said shaping member may form an elongated shape within the said ceiling surface member, one side of which forming an upturned lighting pelmet, the other side forming a shape that envelopes the same upturned pelmet in such a manner as to form a reflector for lighting devices housed within the same pelmet, which is designed to reflect light from the same lighting devices so that all the light emanating from the present form of the invention is reflected and not directly emanating from the same lighting devices when viewed from the space which it was designed to illuminate. This same form of the present invention may also be positioned within the said surface member of a wall.

Also preferably the shaping member may be curvilinear in plan along its extremities, the said perforated edge extending over two or more framing members, and may be formed into a dome of circular, elliptical or other shape in plan and be capable of acting as a supporting member for the surrounding surface member when the shaping member's structural strength is adequate. If the same design is applied to the said surface member when used in a wall, however, suspension rods would normally not be appropriate as the said fitting may be secured with the use of standard framing members, however the same flange / perforated edge configuration described above is applied and thereby negates the need for framing members in the wall to the entire perimeter of the shape formed by the shaping member.

An added advantage of the above configuration of the present invention, utilising the said clamping flange into which to fix the said surface member to the said perforated edge, is that the same surface member is thoroughly secured relative to the said shaping member and therefore any differential movement caused by thermal expansion and contraction of the surface member relative to the shaping member will be constrained, preventing cracking of the said filler material by constraining any potential differential movement within the fabric of the surrounding members and thereby causing internal stresses and tensions within the same fabric, which is manageable within a range of limits however when this same range of limits is exceeded, the said slip joints need be applied.

The said aspect of the present invention incorporating the said settable proud protrusion described in this document provides a method of forming elongated or relatively large shapes within the said surface member, which comprises the steps of:

- Suspending the said fitting from adjustable suspension rods so as to position the settable proud protrusion of the same shaping member so as to be in line with the intended exposed face of surface member.

- Attaching the said surface member (such as plasterboard, fibre cement sheet or other board like surface member) to the fixing flange of the shaping member and screw fixing the same surface member to standard ceiling framing appropriately positioned.
- 5 - Screwing self tapping screws or other fixing devices through the same surface member, into the said fixing flange of the shaping member and, providing a layer of settable compound to the face of the surface member near the perimeter of the exposed portion of the shaping member to the proud protrusion.
- 10 Preferably, said shaping member (housing) is formed into a rectilinear shape and becomes a continuation of the said surface member suitable to house, for example, electrical gear and lamp as well as act as a reflector.
- Also, another advantage of the present invention when used as a structural support member for the said surface member of ceiling system that is suspended from other structural members is that the inherent rigidity of the same invention may also be
- 15 employed to support general (primary) framing members of the same ceiling system; and may be achieved with the use of cleats, angles, brackets and the like or suitable shapes formed into the body of the same invention onto which may be fixed framing members which abut the same invention to which secondary framing members such as furring battens or channels may be attached, which in turn may be directly fixed to
- 20 the said surface member;
- and a structural system may also be configured by employing a repetition of the present form of the invention within a single ceiling as one or more said primary framing members may span between numbers of the same invention and thus be well positioned to support secondary framing members (such as furring channels or
- 25 battens) from which the same surface member may be suspended as well being suspended from the present invention along the line of abutment of the same surface member with the fixing flange of the same invention.
- The said aspect of the present invention described above provides a method of forming structural framing members integral to the said shaping member as well as
- 30 shaping the same surface member to facilitate utilitarian devices and/or add decorative elements, which comprises the steps of:
- Suspending the said fitting from adjustable suspension rods so as to position the perforated edge strip of the same fitting to be in line with the intended exposed face of surface member.
- 35 -Supporting framing members of a ceiling system (which are also supported or suspended from other structural members of a building) from the said fitting with the use of cleats, angles, channels, brackets or the like attached or formed into the same fitting.
- Attaching structural suspension members from structural members in order to
- 40 support the said framing members if the span between the said fittings or the span from the same fittings to an adjoining structural support members (such as a wall) is greater than can be born by the same framing member.
- Attaching framing members such as furring battens, channels or the like to the same framing members so that the distance between the same furring members is
- 45 no greater than the distance that the said surface member can span and so that the same furring framing members are in line with the said flange of the said fitting.
- Inserting and attaching the said surface member (such as plasterboard, fibre cement sheet or other building board like surface member) between the said perforated edge strip and the said flange attached to the housing of the said fitting

and screw fixing the same surface member to said furring framing members appropriately positioned.

-Screwing self tapping screws through the same perforated edge and the said surface member, into the same flange attached to the said fitting; and, providing a
5 layer of settable material over the said perforated edge to the said step along the same perforated edge.

The said aspect of the present invention, which incorporates the said settable proud protrusion, provides a method of forming structural framing members integral to the said shaping member as well as shaping the same surface member to facilitate
10 utilitarian devices and/or add decorative elements, which comprises the steps of:

-Suspending the said fitting from adjustable suspension rods so as to position the said settable proud protrusion of the same fitting to be in line with the intended exposed face of surface member.

-Supporting framing members of a ceiling system (which are also supported or
15 suspended from other structural members of an architectural work) from the said fitting with the use of cleats, angles, channels, brackets or the like attached or formed into the same fitting.

-Attaching structural suspension members to structural members in order to support the said framing members if the span between the said fittings or the span from the
20 same fittings to an adjoining structural support members (such as a wall) is greater than can be born by the same framing member.

- Attaching framing members such as furring battens, channels or the like to the same framing members so that the distance between the same furring members is no greater than the distance that the said surface member can span and so that the
25 same furring framing members are level with the said flange of the said fitting.

- Attaching the said surface member (such as plasterboard, fibre cement sheet or other building board like surface member) to the said fixing flange of the said shaping member with the use of self- tapping screws or other fixing devices.

- Providing a layer of settable compound from the said proud protrusion to the face of
30 surface member in the proximity of the shaping member.

In another form of the present invention and when the said shaping member is required in longer lengths than is practical or economical to supply and/or transport, it may be necessary to join two lengths of the same shaping member in a manner that the joint between the abutting said shaping members is not normally apparent
35 when viewed by the human eye. This may be achieved with the use of perforated edges along the line of the joint between the two said shaping members, which may be stepped back from the face of the said shaping member allowing for the application of said filler material and also to prevent movement between the two said abutting shaping members, one of the two abutting said perforated edges may
40 incorporate a second step back from the face of the same shaping member to allow for a lap between the two said perforated edges which may be fixed together with the use of screws or other mechanical fixing devices and/or adhesive prior to the application of the said filler material.

In another form of the invention, the said shaping members may be used to join
45 different materials. For example, a cement rendered wall may be connected with a plasterboard ceiling with a said shaping member in the shape of a cove which also may be used with a light fitting utilising the cove as a reflector.

An economy of means in terms of the structural system of the overall construction is achieved by the present invention. Using the inherent rigidity of the present invention

for employment as a structural element is a unique feature of the present invention when it is suspended or otherwise supported from other, more major, structural members and it can therefore be said that the present invention may be used to support the said surface member in conjunction with the said general framing members.

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Description of Preferred Embodiments

To assist with the understanding of the invention, reference will now be made to the accompanying drawings, which show examples of the invention. The said examples are of a preferred but non-limiting embodiment

5 Throughout the drawings, like numerals will be used to identify similar features, except where expressly otherwise indicated.

10 Wall lining or ceiling lining in this document normally refers to the combination of the surface member 7 and the shaping member 1, which are connected according to this invention so that no joint is apparent and therefore visually forming one continuous surface, be it of differing materials. This is made possible by the aspect of the invention that constrains any differential movement between the same differing materials.

In the drawings:

15 FIG. 1 shows one example of a shaping member 1(ex), which is flush joinable to surface members (including wall surfaces) and designed to provide a rounded corner according to this invention. It is shown in section across its length and in this case it is in the form of a setting bead for external (270 degree) corners in preferably plasterboard lined walls (plasterboard being the said surface member in this case).

20 As well as shaping the corner it provides a durable straight edge. It is preferably made out of metal such as steel or aluminium or may be made of PVC or some form of durable and suitably hard plastic. Preferably it should be manufactured in lengths that are long enough to be fitted in one length in most applications, but however may be butt joined for very long runs.

25 NB. Setting beads currently available are normally used in to form straight and durable external corners and are installed after the surface members are fixed into position.

FIG. 2 shows the same shaping member in elevation according to this invention.

30 FIG. 4. shows the same shaping member 1(ex) as in FIG. 1 in plan view when installed vertically into the external corner junction of two walls.

To install, fix setting bead 1(ex) to framing 6 with screws 3 or other fixing devices or techniques before installing the surface member 7 (plasterboard in this case). Install the surface member 7 so that it butts up against the setting bead shaping member 1(ex). Fix with screw 3 or secure by other means the surface member 7 to the fixing flange 4 of the setting bead shaping member 1(ex) so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the setting bead 1(ex) and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

45 In this form of the invention and for all forms of the invention designed for use as a setting bead, the fixing flange 4 of the shaping member 1(ex) and 1(in) is securely fixed to the framing member 6 as well as to the surface member 7 and is designed to prevent differential movement between the same shaping member 1(ex) and 1(in), the same framing member 6 and the same surface member 7.

It will be realized that all the setting bead type shaping members according to this invention is not restricted to any shape and the shape may change along its length. For example the profile of any setting bead type shaping member according to this invention may form a right angle edge at its base to accommodate skirting boards and the like, form into a rounded corner along its length and form into a right angle edge at the top to accommodate cornices and the like. This may be achieved with joinable lengths or with one length, which may be trimmed before installation if necessary.

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FIG. 3 shows an example of a shaping member 1(in), which is flush joinable to surface members 7 (including plasterboard wall and ceiling surfaces) and designed to provide a rounded corner according to this invention. It is shown in section across its length and in this case it is in the form of a setting bead for internal (90 degree) corners in which preferably plasterboard lined walls are the said surface member 7. As well as shaping the corner it provides a durable straight edge. It is preferably

made out of metal such as steel or aluminium or may be made of PVC or some form of durable and suitably hard plastic. Preferably it should be manufactured in lengths that are long enough to be fitted in one length in most applications, but however may be joined end to end for very long runs.
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FIG 4. shows the same shaping member 1(in) seen in FIG. 3 in plan view when installed vertically into the internal corner junction of two walls. To install, fix setting bead shaping member 1(in) to framing 6 with screws 3 or other fixing devices or techniques before installing the surface member 7 (plasterboard in this case) as shown in the diagrams so that the surface member 7 butts up against the setting bead surface member 1(in). Fix in position with screw 3 or secure by other means the surface member 7 to the fixing flange 4 of the setting bead shaping member 1(in) so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the setting bead and the surface member to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the setting compound after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish.

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FIG. 5 shows an example of a shaping member 1(ex), which is flush joinable to surface members 7 (including wall and ceiling surfaces) according to this invention and embodies the same purpose and method of installation as FIG. 1 with the exception that the shaping member embodied in FIG. 5 provides for a relatively sharp edged corner. It is shown in section across its length and in this case it is in the form of a setting bead for external (270 degree) corners in preferably plasterboard lined walls as the said surface member.

FIG. 6 shows the same shaping member in elevation as shown in FIG. 5 according to this invention.

FIG. 7 embodies the same description as shown in FIG. 3 with the exception that it is for use in a junction where a sharp internal corner is required.

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FIG. 8 shows the shaping members shown in FIG. 5 and FIG 7 in operation and embodies the same description as shown in FIG. 4

FIG. 9 shows one example of a shaping member 1(ex), which is flush joinable to surface members (including wall surfaces) and designed to provide a rounded corner according to this invention. It is shown in section across its length and in this case it

is in the form of a setting bead for external (270 degree) corners in preferably plasterboard lined walls as the said surface member 7. As well as shaping the corner it provides a durable straight edge, which is stronger and quicker to install than what is currently available on the market. It is preferably made out of metal such as steel
5 or aluminium or may be made of PVC or some form of durable and suitably hard plastic. Preferably it should be manufactured in lengths that are long enough to be fitted in one length in most applications, but however may be butt joined for very long runs or when a change of shape is required along its length (as is the case for all setting bead type shaping members according to this invention).

10 In order to facilitate good bonding between the shaping member 1 (ex) and the surface member 7 a wedging flange 10 is provided according to this invention and can be applied to any shape setting bead type shaping member 1(ex), 1(in) including those designed to provide a square edge internal or external corner.

15 FIG. 10 shows the same shaping member as shown in FIG. 9 in elevation according to this invention.

FIG 12. shows the same shaping member 1(ex) as in FIG. 9 installed into a wall as seen on the external corner.

To install, fix setting bead 1(ex) to framing 6 with screws 3 or other fixing devices or techniques before installing the surface member 7 (plasterboard in this case). Install
20 the surface member 7 so that it is wedged between the framing member 6 and the wedging flange 10 and pushed up against the setting bead shaping member 1(ex). Fix with screw 3 or secure by other means the surface member 7 to the fixing flange 4 of the setting bead shaping member 1(ex) so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound
25 2 to the junction between the wedging flange 10 of the setting bead 1(ex) and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a
30 smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

FIG. 11 shows an example of a shaping member 1(in), which is flush joinable to surface members 7 (including plasterboard wall and ceiling surfaces) and designed to provide a rounded corner according to this invention. It is shown in section across
35 its length and in this case it is in the form of a setting bead for internal (90 degree) corners in which preferably plasterboard lined walls are the said surface member 7. In order to facilitate good bonding between the shaping member 1 (in) and the surface member 7 a wedging flange 10 is provided according to this invention.

40 As well as shaping the corner it provides a durable straight edge. It is preferably made out of metal such as steel or aluminium or may be made of PVC or some form of durable and suitably hard plastic. Preferably it should be manufactured in lengths that are long enough to be fitted in one length in most applications, but however may be butt joined for very long runs.

45 FIG 12. shows the same shaping member 1(in) as in FIG. 11 in plan view when installed vertically into the internal corner junction of two walls.

To install, fix setting bead shaping member 1(in) to framing 6 with screws 3 or other fixing devices or techniques before installing the surface member 7 (plasterboard in this case) as shown in the diagrams. Install the surface member 7 so that it is wedged between the fixing flange 4 and the wedging flange 10 and pushed up

against the setting bead shaping member 1(in). Fix in position with screw 3 or secure by other means the surface member 7 to the fixing flange 4 of the setting bead shaping member 1(in) so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction
5 between the setting bead and the surface member to provide a smooth and even surface between the two members. If necessary sand the setting compound after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish.

In all cases where a said wedging flange is incorporated into the said shaping member, a hook, pawl, ratchet or other device intended to provided a ratchet effect such that the surface member 7 is more easily inserted into than removed from between the fixing flange 4 and the wedging flange 10 may be provided according to this invention.

Fig. 13 shows one example of a shaping member 1(ex), which is flush
15 joinable to surface members (including wall surfaces) and designed to provide a rounded corner according to this invention. It is shown in section across its length and in this case it is in the form of a setting bead for external (270 degree) corners in preferably plasterboard lined walls as the said surface member 7. As well as shaping the corner it provides a durable straight edge. It is preferably made out of metal such
20 as steel or aluminium or may be made of PVC or some form of durable and suitably hard plastic. Preferably if should be manufactured in lengths that are long enough to be fitted in one length in most applications, but however may be joined end to end for very long runs.

In order to facilitate good bonding between the shaping member 1(ex) and the
25 surface member 7 a bendable locking flange 9 is provided, which can be bent down after the installation of the surface member 7 in order to prevent differential movement under normal operating conditions.

FIG. 14 shows the same shaping member in elevation (looking toward the rear face) according to this invention, and in this case perforations 11 are shown in the
30 webbing between the fixing flange 4 and the locking flange 9 as may be applied to all setting bead type shaping members according to this invention. These same perforations are designed to enhance bonding of settable compound 2 and the shaping member 1(in), 1(ex) and is an optional feature of all setting bead type shaping members according to this invention.

FIG. 15 shows the same shaping member as show in FIG. 13 with the exception that it is shown in a different orientation in order to line it up with FIG 16.

FIG. 16 shows the same shaping member in elevation according to this invention (looking toward the exposed face). Perforations 11 are shown in the bendable lock
40 down flange 9, which are designed to enhance bonding between the settable compound 2 and the setting bead shaping member 1(in), 1(ex). The perforations 11 in the wedging flange 9 are an optional feature in this form of the invention.

FIG 17. shows the same shaping member 1(ex) as in FIG. 13 and FIG. 15 in plan view when installed vertically into the external corner junction of two walls.

To install, fix setting bead shaping member 1(ex) to framing 6 with screws 3 or other
45 fixing devices or techniques before installing the surface member 7. Install the surface member 7 so that it is wedged between the fixing flange 4 and the bendable locking flange 9 and pushed up against the setting bead shaping member 1(ex). Fix in position with screw 3 or secure by other means the surface member 7 to the fixing flange 4 of the setting bead shaping member 1(ex) so as to ensure a firm connection

and prevent any visible movement between the two members. Bend the locking flange 9 preferably using an appropriate tool such as a rubber hammer and a straight edge so that the same locking flange 9 is embedded into the surface member 7 without cutting the outer layer of the surface member (in the case of plasterboard, the cardboard outer layer should not be cut by the locking flange so as to maintain the strength of the same plasterboard). Apply settable compound 2 between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. If necessary sand the setting compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish.

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10 FIG. 18 shows one example of a shaping member 1(ex), which is flush joinable to surface members (including wall surfaces) and designed to provide a square edged corner according to this invention. It is shown in section across its length and in this case it is in the form of a setting bead for external (270 degree) corners in preferably plasterboard lined walls as the said surface member 7. As well as shaping the

15 corner, it provides a durable straight edge, which is stronger and quicker to install than what is currently available on the market. It is preferably made out of metal such as steel or aluminium or may be made of PVC or some form of durable and suitably hard plastic. Preferably it should be manufactured in lengths that are long enough to be fitted in one length in most applications, but however may be joined end to end for

20 very long runs.

FIG. 19 shows the same shaping member, as in FIG. 18, in elevation according to this invention.

FIG. 20. shows the same shaping member 1(ex) as in FIG. 1 installed into a wall as seen on the external corner.

25 To install, fix setting bead 1(ex) to framing 6 with screws 3 or other fixing devices or techniques before installing the surface member 7 (plasterboard in this case). Install the surface member 7 so that it butts up against the setting bead shaping member 1(ex). Fix with screws 3 or secure by other means the surface member 7 to the fixing flange 4 of the setting bead shaping member 1(ex) so as to ensure a firm connection

30 and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the setting bead 1(ex) and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If

35 necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

FIG. 21 shows one example of a shaping member 1(ex), which is flush joinable to surface members (including wall surfaces) and designed to provide a square edged corner according to this invention. It is shown in cross section and in this case it is in the form of a setting bead for external (270 degree) corners in preferably plasterboard lined walls as the said surface member 7. It provides a durable straight

40 edged corner. It is preferably made out of metal such as steel or aluminium or may be made of PVC or some form of durable and suitably hard plastic. Preferably it should be manufactured in lengths that are long enough to be fitted in one length in most applications, but however may be joined end to end for very long runs.

45 In order to facilitate good bonding between the shaping member 1 (ex) and the surface member 7 a wedging flange 10 is provided according to this invention.

FIG. 22 shows the same shaping member shown in FIG. 21 in elevation according to this invention.

FIG 23. shows the same shaping member 1(ex) as in FIG. 21 installed into a wall as seen on the external corner.

5 To install, fix setting bead shaping member 1(ex) to framing member 6 with screws 3 or other fixing devices or techniques before installing the surface member 7 (plasterboard in this case). Install the surface member 7 so that it is wedged between the fixing flange 4 and the wedging flange 10 and pushed up against the setting
10 bead shaping member 1(ex). Fix with screw 3 or secure by other means the surface member 7 to the fixing flange 4 of the setting bead shaping member 1(ex) so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 7 of the setting bead 1(ex) and the surface member 7 to provide a smooth and even
15 surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

20 Fig. 24 shows one example of a shaping member 1(ex), which is flush joinable to surface members (including wall surfaces) and designed to provide a rounded corner according to this invention. It is shown in cross section and in this case it is in the form of a setting bead for external (270 degree) corners in preferably plasterboard lined walls as the said surface member. As well as shaping the corner it provides a
25 durable straight edge. It is preferably made out of metal such as steel or aluminium or may be made of PVC or some form of durable and suitably hard plastic. Preferably if should be manufactured in lengths that are long enough to be fitted in one length in most applications, but however may butt joined end to end for very long runs.

30 In order to facilitate good bonding between the shaping member 1(ex) and the surface member 7 reinforcing 12 is provided which is preferably mesh or paper which is to be installed so as to be fully surrounded by the settable compound 2 where it is in contact with the surface member 7. The said reinforcing is to be such that if there is any minor cracking in the settable compound 2, after setting, the
35 reinforcing will ensure that the cracks will be so minute so as to be unapparent to the human eye especially after a paint finish is applied. Preferably the reinforcing 12, when made of paper, may cover the entire surface of the setting bead exposed to view when installed.

40 Fig. 25 shows one example of a shaping member 1(in), which is flush joinable to surface members (including wall surfaces) and designed to provide a rounded corner according to this invention. It is shown in cross section and in this case it is in the form of a setting bead for internal (90 degree) corners in preferably plasterboard lined walls as the said surface member 7. As well as shaping the corner it provides a
45 durable straight internal corner. It is preferably made out of metal such as steel or aluminium or may be made of PVC or some form of durable and suitably hard plastic. Preferably if should be manufactured in lengths that are long enough to be fitted in one length in most applications, but however may be joined end to end for very long runs.

In order to facilitate good bonding between the shaping member 1(in) and the surface member 7 reinforcing 12 is provided which is preferably mesh or paper which is to be installed so as to be fully surrounded by the settable compound 2 where it is in contact with the surface member 7. The said reinforcing is to be such that if there is any minor cracking in the settable compound 2, after setting, the reinforcing 12 will ensure that the cracks will be so minute so as to be unapparent to the human eye.

FIG 26. shows the same shaping member - 1(ex) as in FIG. 24 and 1(in) as in FIG. 25 - in plan view when installed vertically into the corner junctions of two walls.

To install, fix setting bead shaping members 1(ex) and 1(in) to framing 6 with screws 3 or other fixing devices or techniques before installing the surface member 7. Install the surface members 7 so that it is positioned between the fixing flange 4 and the reinforcing 12 and pushed up against the setting bead shaping members 1(ex) and 1(in). Fix in position with screws 3 or secure by other means the surface member 7 to the fixing flange 4 of the setting bead shaping member 1(ex) & 1(in) so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 between the proud protrusion 5 and the surface member 7 and embed the reinforcing 12 into the same settable compound 2 and if required apply more settable compound 2 to fully cover the reinforcing 12 and to provide a smooth and even surface between the proud protrusions 5 of the shaping members 1(ex) & 1(in) and the surface of the surface member 7. If necessary sand the setting compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish.

FIG. 27 shows an example, as a three dimensional representation, of a shaping member according to this invention.

FIG. 28 shows the application of such a shaping device, as a two dimensional cross sectional representation, when installed into the edge of a plasterboard ceiling. The same invention may also be installed vertically preferably at the junction of two walls or horizontally, preferably to the top of a wall, at the junction with the ceiling.

Referring to FIG. 27 it can be seen that the shaping member according to this invention comprises an elongated member, which is "T" shape in cross section and is of indefinite length. The part of the said invention, which is used to fix the same invention to framing 6 or structural members as well as to lining members 7 is referred to as the fixing flange 4. It is normally for use in shaping a surface member 7 such as plasterboard in such a way as to form a small gap (commonly known in the building industry as a 'shadow line') at the junction of one surface member 7 with another surface member 7, which are preferably at right angles to each other.

FIG. 28 shows the shaping device in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6. It can also be seen that the wall is lined with a building board type surface member 7, attached to wall framing 6, shown as the vertical lines adjacent to the shaping member 1.

This device allows the surface member (in this case the ceiling lining) to be neatly finished in a straight line with a durable edge, which is preferably in line with and close to an adjacent wall. It provides an aesthetically appealing finish and makes cracking at the junction where it abuts the wall difficult to detect.

To install, fix shaping member 1 to framing 6 with screws 3 or other fixing devices or techniques before installing the surface member 7 (plasterboard in this case). Install the surface member 7 so that it butts up against the setting bead shaping member 1.

Fix with screw 3 or secure by other means the surface member 7 to the fixing flange 4 of the shaping member 1 so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

It will be realized that the shaping member according to this invention is not restricted to the form of a "T" shape (in cross section) setting bead. It may be incorporated with a bendable locking flange 9, a wedging flange 10 and reinforcing 12.

FIG. 29 shows an example, as a three dimensional representation, of a shaping member according to this invention.

FIG. 31 shows the application of such a shaping device, as a two dimensional cross sectional representation, when installed into the perimeter of a plasterboard ceiling. The same invention may also be installed vertically preferably at the junction of two walls or horizontally, preferably to the top of a wall, at the junction with the ceiling.

FIG. 30 shows a more detail view of the shaping member 1 in FIG. 31.

Referring to FIG 29 it can be seen that the shaping member according to this invention comprises an elongated member of indefinite length. The part of the said invention, which is used to fix the same invention to framing 6 or structural members as well as to surface members 7 is referred to as the fixing flange 4. It is normally for use in shaping a surface member 7 such as plasterboard in such a way as to form a small gap at the junction of one surface member 7 with another surface member 7, which are preferably at right angles to each other. The same shaping member also forms an enclosure to house a light source 13, which is preferably in the form of a series of light emitting diodes (LEDs) configured in a strip form and used to illuminate the gap so formed by the said shaping member 1.

FIG. 31 and FIG. 30 shows the shaping member 1 according to this invention in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6. It can also be seen that the wall is lined with a building board type surface member 7, attached to wall framing 6, shown as the vertical lines adjacent to the shaping member 1.

This devise allows the surface member (in this case the ceiling lining) to be neatly finished in a straight line with a durable edge, which is preferably in line with and close to an adjacent wall. It provides an aesthetically appealing finish and makes cracking at the junction where it is applied difficult to detect as well as providing an enclosure for a light source.

To install, fix shaping member 1 to framing 6 with screws 3 or other fixing devices or techniques before installing the surface member 7 (plasterboard in this case). Install the surface member 7 so that it butts up against the setting bead shaping member 1. Fix with screw 3 or secure by other means the surface member 7 to the fixing flange 4 of the shaping member 1 so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an

appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated. It may be incorporated with a bendable locking flange 9, a wedging flange 10 and reinforcing 12.

FIG. 32 shows an example, as a cross sectional representation, of a shaping member according to this invention.

As applicable to all forms of the invention described in this document where the fixing flange 4 is bonded to the rear face of the shaping member 7, dimension 'x' should preferably be slightly greater than the thickness of the lining member to which it is attached in order to make the application of the settable compound 2 quick and easy to apply. Preferably, the dimension 'x' should be large enough so as to allow the setting compound applied to it to cover the fixing members (such as screws) without being so great as to require that more than one coat of setting compound be applied and in this way the application time is kept to a minimum, while still maintaining to objective of providing a continuous, (preferably paint able) surface between the exposed face of the shaping member and the sheeting member to which it is joined. Standard commonly available setting bead normally incorporate a perforated edge strip that requires a recommended three coats of settable compound.

FIG. 33 shows the same example as FIG. 32 represented as a reflected plan view relative to the orientation shown in FIG. 32.

FIG. 34 shows the application of such a shaping device, as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

Referring to FIG 32, it can be seen that the shaping member according to this invention comprises a somewhat circular member of indefinite radius. The part of the said invention, which is used to fix the same invention to the surface member 7 is referred to as the fixing flange 4. The same shaping member also has an aperture formed into it in order to house a light source.

FIG. 34 shows the shaping device depicted in FIG. 32 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

This invention allows the surface member (in this case the plasterboard ceiling) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining so as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, cut a circular opening into the surface member 7 of a slightly larger radius than the inner diameter of the fixing flange. Insert the shaping member through the hole from below and position in accordance with FIG. 34. The fixing flange 4, in this form of the invention, is cropped on two sides to allow ease of insertion. Fix the fixing flange 4 of the shaping member 1 to the surface member 7 with screws 3 or other fixing devices or techniques 1 so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the

use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

Install light source 13 into opening 8 and secure appropriately.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated. It may also be incorporated with reinforcing 12.

FIG. 35 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 36 shows the same example as FIG. 35 represented as a reflected plan view relative to the orientation shown in FIG. 35.

FIG. 37 shows the application of such a shaping device, as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

Referring to FIG 35, it can be seen that the shaping member according to this invention comprises a somewhat circular member of indefinite radius. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the fixing flange 4. The same shaping member also has an aperture formed into it in order to house a light source 8.

FIG. 37 shows the shaping device depicted in FIG. 35 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

This device allows the surface member (in this case the ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, cut a circular opening into the surface member 7 of a slightly larger radius than the inner diameter of the fixing flange. Insert the shaping member through the hole from below and position in accordance with FIG. 37. Fix the fixing flange 4 of the shaping member 1 to the surface member 7 with screws 3 or other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

Install light source 13 into opening 8 and secure appropriately.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and the fixing flange may be made in many configurations to suite manufacturing and installation procedures. It may also be incorporated with reinforcing 12.

FIG. 38 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 39 shows the same example as FIG. 38 represented as a reflected plan view relative to the orientation shown in FIG. 38.

FIG. 41 shows the application of such a shaping member shown in FIG. 38, as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

5 FIG. 40 shows the preferred shape of the cut-out in the surface member 7 required to insert the shaping member 1 shown in FIG. 39 and FIG. 40.

Referring to FIG 38, it can be seen that the shaping member according to this invention comprises a somewhat circular member of indefinite radius. The part of the said invention, which is used to fix the same invention to the surface member 7 is referred to as the fixing flange 4. In this example of the invention the same shaping member 1 also has an aperture 8 formed into it in order to house a light source 13. FIG. 41 shows the shaping device depicted in FIG. 38 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

15 This device allows the surface member (in this case the ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, cut a circular opening into the surface member 7 of a slightly larger radius than the inner diameter of the fixing flange 4 and also form radial cut-outs or the like on either side slightly longer than the fixing flange 4 as shown in FIG. 40. Insert the shaping member through the hole from below allowing the fixing flanges 4 to pass through the cut-outs on either side of the circular opening and position in accordance with FIG. 41. Fix the shaping member 1 to the surface member 7 with screws 3 or other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members, ensuring that the cut-outs for the fixing flanges are covered with settable compound 2 so as to be completely obscured. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

25 Install light source 13 into opening 8 and secure appropriately.

35 It will be realized that the shaping member according to this invention is not restricted to the form illustrated. It may also be incorporated with reinforcing 12 and may be used to house various devices.

FIG. 42 shows an example, as a cross sectional representation, of a shaping member according to this invention.

40 FIG. 43 shows the same example as FIG. 42 represented as a reflected plan view relative to the orientation shown in FIG. 42.

FIG. 44 shows the application of such a shaping member for creating apertures in surface members 7, as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

45 Referring to FIG 42, it can be seen that the shaping member according to this invention comprises a somewhat circular member of indefinite radius or shape referred to as a proud protrusion 5. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the fixing flange 4. The same shaping member forms an aperture into the surface member 7 which

preferably may be used to house a light source 13 or other utilitarian device or may be used for decorative purposes.

Referring to FIG 43, it can be seen that the shaping member comprises fixing flange 4, which is cropped on two sides in order to facilitate the insertion of the shaping member 1 into a suitable opening in the surface member 7.

FIG. 44 shows the shaping device depicted in FIG. 42 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

This device allows the surface member (in this case the ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining so as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish. As the proud protrusion 5 is only slightly longer than the surface member 7, in this case, the shaping member 1 is designed to form an aperture in the surface member 7.

To install, cut a circular opening into the surface member 7 of a slightly larger radius than the proud protrusion 5. Insert the shaping member through the hole from below and position in accordance with FIG. 44. The fixing flange 4, in this form of the invention, is shaped in such a way as to facilitate ease of insertion. Fix the shaping member 1 to the surface member 7 with screws 3 or with other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting. Preferably install a suitable device into opening 8 and secure appropriately.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form square, rectangular, oblong or any other shape. It may also be incorporated with reinforcing 12.

FIG. 45 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 46 shows the same example as FIG. 45 represented as a reflected plan view relative to the orientation shown in FIG. 45.

FIG. 47 shows the application of such a shaping member for creating apertures in surface members 7, as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

Referring to FIG 45, it can be seen that the shaping member according to this invention comprises a somewhat circular member of indefinite radius formed into a fixing flange 4, proud protrusion 5 as well as the main body of the shaping member 1. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the fixing flange 4. The same shaping member forms a protrusion from the surface member 7 which preferably may be used to house a light source or other utilitarian device or may be used for decorative purposes.

Referring to FIG 46, it can be seen that the shaping member 1 has a fixing flange 4 about its perimeter, which is cropped on two sides in order to facilitate the insertion of the shaping member 1 into a suitable opening in the surface member 7.

FIG. 47 shows the shaping device depicted in FIG. 45 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

This device allows the surface member (in this case the ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining so as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, cut a circular opening into the surface member 7 of a slightly larger radius than the proud protrusion 5. Insert the shaping member through the hole from below and position in accordance with FIG. 47. The fixing flange 4, in this form of the invention, is shaped in such a way as to facilitate ease of insertion. Fix the fixing flange 4 of the shaping member 1 to the surface member 7 with screws 3 or with other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

Preferably install a suitable device into opening 8 and secure appropriately.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form square, rectangular, oblong or any other shape. It may also be incorporated with reinforcing 12.

FIG. 48 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 49 shows an example of the same shaping member as FIG. 48 represented as a reflected plan view relative to the orientation shown in FIG. 48.

FIG. 50 shows the application of such a shaping member 1 for creating shapes that protrude from surface members 7 as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

Referring to FIG 48, it can be seen that the shaping member 1, according to this invention, comprises a somewhat circular member of indefinite radius formed into a fixing flange 4, proud protrusion 5 as well as the main body of the shaping member 1. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the fixing flange 4. This form of the invention forms a protrusion from the surface member 7, which preferably may be used to house a light source or other utilitarian device or may be used for decorative purposes.

Referring to FIG 49, it can be seen that the shaping member 1 has a fixing flange 4 about its perimeter, which is cropped on two sides in order to facilitate the insertion of the shaping member 1 into a suitable opening.

FIG. 50 shows the shaping device depicted in FIG. 48 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

This device allows the surface member (in this case the ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining as no joint is apparent between the shaping member 1 and the surface

member 7 when both surfaces are finished with the same paint finish. To install, cut a circular opening into the surface member 7 of a slightly larger radius than the proud protrusion 5. Insert the shaping member through the hole from below and position in accordance with FIG. 50. The fixing flange 4, in this form of the invention, is shaped in such a way as to facilitate ease of insertion. Secure the fixing flange 4 of the shaping member 1 to the surface member 7 with screws 3 or with other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting. Preferably install a suitable device such as a light source 13 into opening 8 and secure appropriately.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form square, rectangular, oblong or any other shape. It may also be incorporated with reinforcing 12.

FIG. 51 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 52 shows an example of the same shaping member as FIG. 51 represented as a reflected plan view relative to the orientation shown in FIG. 51.

FIG. 53 shows an example of the diffuser 15 used in the same shaping member as FIG. 51 as a cross sectional representation

FIG. 54 shows the diffuser 15 represented in FIG. 53 as a reflected plan view relative to the orientation shown in FIG. 51.

FIG. 55 shows the application of such a shaping member 1 for creating shapes in the surface member 7 that facilitate the installation of a diffuser 15 as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

Referring to FIG 51, it can be seen that the shaping member 1 according to this invention comprises a somewhat orthogonal member of indefinite size incorporating a fixing flange 4, proud protrusion 5 as well as the main body of the shaping member 1. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the fixing flange 4. This form of the invention forms an opening in the surface member 7, which preferably may be used to house a light source or other utilitarian device or may be used for decorative purposes. The said opening is shaped so as to facilitate the positioning of a light diffuser 15.

Referring to FIG 52, it can be seen that the shaping member 1 has a fixing flange 4 about its perimeter onto which the surface member 7 may be fixed.

Referring to FIG 53 and FIG 54, it can be seen that the reflector 15 has flanges 23 positioned at the top of two opposite side walls preferably on the long side of the diffuser.

FIG. 55 shows the shaping device depicted in FIG. 51 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

This device allows the surface member 7 (in this case the plasterboard ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of

the ceiling lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish. As the surface member 7 and the shaping member 1 have a small radius connection between them the shape so formed appears to be an aperture in the surface member.

To install, suspend the shaping member 1 with the use of rods, threaded rods with bolts or by otherwise attaching them to framing members so that the fixing flange 4 is in line with the bottom face of framing members 6. Fix the surface member 7 to the fixing flange 4 of the shaping member 1 with screws 3 or other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members and also fix the same surface member 7 to the framing members 6. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

It can be said that, in this form of the invention, the shaping member 1, as well as shaping the surface member 7, also forms part of the structural support system for the same surface member 7. Preferably, reflector 15 should be positioned in accordance with FIG. 55.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form square, rectangular, oblong, curvilinear or any other shape. It may also be incorporated with reinforcing 12, bendable locking flange 9, wedging flange 10 etcetera.

The diffuser 15, in this form of the invention or any other form of the invention, may be of any concave or convex shape and may be held in position by any suitable support mechanism including spring clips, "Velcro" type devices and magnetic devices.

FIG. 56 shows an example, as a long cross sectional representation, of a shaping member according to this invention.

FIG. 57 shows an example, as seen in FIG. 56, as a short cross sectional representation, of a shaping member according to this invention.

FIG. 58 shows the application of the same form of this invention shown in FIG. 56 for creating shapes in the surface member 7 that facilitate the installation of a diffuser 15 as a long cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

FIG. 59 shows the application of the same form of the invention shown in FIG. 56 for creating shapes in the surface member 7 that facilitate the installation of a diffuser 15 as a short cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

Referring to FIG 56, it can be seen that the shaping member according to this invention comprises a somewhat orthogonal member of indefinite size formed into a fixing flange 4p, proud protrusion 5 as well as the main body of the shaping member 1. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the fixing flange 4p used in conjunction with clamping flange 4c. This form of the invention forms an opening and enclosure in the surface member 7, which preferably may be used to house a light source or other

utilitarian device or may be used for decorative purposes. The said opening is shaped so as to facilitate the positioning of a light diffuser 15.

Referring to FIG 56 and FIG 57, it can be seen that the shaping member 1 has a perforated fixing flange 4p and clamping flange 4c about its perimeter between which the surface member 7 may be fixed. It can be seen that the diffuser 15 has flanges 23 positioned at the top of the two opposite side walls, preferably on the long sides of the diffuser.

FIG. 58 and FIG. 59 shows the shaping device depicted in FIG 56 and FIG 57 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

This device allows the surface member 7 (in this case the plasterboard ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish. As the surface member 7 and the shaping member 1 have a small radius connection between them the shape so formed appears to be an aperture in the surface member.

To install, suspend the shaping member 1 with the use of rods, threaded rods with bolts or by otherwise attaching them to framing members so the fixing flange 4c is in line with the rear face of surface member 7. Fix the surface member 7 to the shaping member 1 with screws 3 inserted through the perforated fixing flange 4p, surface member 7 and clamping flange 4c. Other fixing devices or techniques may be used so as to ensure a firm connection and prevent any visible movement between the two members. Also fix the same surface member 7 to the framing members 6. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

It can be said that, in this form of the invention, the shaping member 1, as well as shaping the surface member 7, also forms part of the structural support system for the same surface member 7. Preferably, reflector 15 should be positioned in accordance with FIG. 58 and FIG. 59.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form square, rectangular, oblong, curvilinear or any other shape. It may also be incorporated with reinforcing 12.

The diffuser 15, in this form of the invention or any other form of the invention, may be of any concave or convex shape and may be held in position by any suitable support mechanism including spring clips, "Velcro" type devices and magnetic devices.

FIG. 60 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 61 shows the application of the same form of this invention shown in FIG. 60 for creating shapes in the surface member 7 that facilitate the installation of a diffuser 15 as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7) at the junction with a wall.

Referring to FIG. 60, it can be seen that the shaping member according to this invention is of indefinite length incorporating a perforated fixing flange 4p, a clamping flange 4c, proud protrusion 5 as well as the main body of the shaping member 1. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the perforated fixing flange 4p used in conjunction with clamping flange 4c. This form of the invention forms an opening and enclosure in the ceiling lining, which preferably may be used to house a light source or other utilitarian device or may be used for decorative purposes. If this form of the invention is joined on site with other devices of the same profile, the perforated fixing flange will only be supplied on one side as each device will be butt joined with an adjoining device. If it is to be installed as a single unit the perforated fixing flange 4p will be supplied on three sides. One side of the invention is designed to run along a wall in such a way as to allow the diffuser 15 to come into contact with the same wall. FIG. 61 shows the form of this invention depicted in FIG. 60 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6. This devise allows the surface member 7 (in this case the plasterboard ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish. As the surface member 7 and the shaping member 1 have a small radius connection between them the shape so formed appears to be an aperture in the surface member allowing for a 'drop-in' diffuser 15. To install, fix support angle 23 to the wall before lining the wall with cement render or plasterboard type surface member 7 finishing the same surface member 7 in line with the angle 23. Suspend one side the shaping member 1 with the suspension mechanism 22 which may incorporate the use of rods or threaded rods with bolts and support one side of the same shaping member 1 on the angle 23. The same shaping member may otherwise be suspended by attaching it to framing members. When the shaping member 1 is positioned in place the fixing flange 4c should preferably be in line with the rear face of surface member 7. Fix the surface member 7 to the shaping member 1 with screws 3 drilled through the perforated fixing flange 4p, surface member 7 and clamping flange 4c. Other fixing devices or techniques may be used so as to ensure a firm connection and prevent any visible movement between the members. Also fix the same surface member 7 to the framing members 6. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting. Insert the diffuser and allow to drop into position. It can be said that, in this form of the invention, the shaping member 1, as well as shaping the surface member 7, also forms part of the structural support system for the same surface member. FIG 62 shows an example, as a cross sectional representation, of a shaping member according to this invention and applicable to all of the forms of the invention described in this document which are circular when viewed toward the exposed face

(with the exception of shaping members designed to act as structural support members herein described).

FIG. 63 shows the same example as FIG. 62 represented as a reflected plan view relative to the orientation shown in FIG. 62.

5 FIG. 64 shows the application of such a shaping member for creating a light reflector and housing preferably in ceiling linings, as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7). Referring to FIG 62, it can be seen that the shaping member according to this invention comprises a somewhat circular member of indefinite radius referred to as a
10 proud protrusion 5. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the perforated fixing flange 4p. The same shaping member forms an shape and aperture in the ceiling lining, which preferably may be used to house a light source or other utilitarian device or may be used for decorative purposes. This form of the invention utilises fixing cleats 24 and
15 reflector 20.

Referring to FIG 63, it can be seen that the shaping member comprises perforated fixing flange 4p, which has L-shaped fixing cleats 24 protruding back from the exposed face in order to facilitate the fixing of the shaping member 1 into a suitable opening in the surface member 7.

20 FIG. 64 shows the shaping device depicted in FIG. 62 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

This devise allows the surface member (in this case the ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining as no joint is apparent between the shaping member 1 and the surface
25 member 7 when both surfaces are finished with the same paint finish.

To install, cut a circular opening into the surface member 7 of a slightly larger radius than the proud protrusion 5. Modify the circular opening to accommodate the
30 insertion of the shaping member 1 through the same opening from below and rotate the same shaping member 1 so that the fixing flange 24 sandwiches the a portion of the surface member 7 between the same fixing cleat 24 and the perforated fixing flange 4p in accordance with FIG. 64. Fix the shaping member 1 to the surface member 7 with screws 3 or with other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members.

35 The L-shaped fixing cleats 24 may be formed into or attached to the said perforated fixing flange 4p of the said shaping member 1 in such a manner that when they are inserted into a suitably shaped cut out in the said building board type surface member 7, the same shaping member 1 may be rotated in such a manner that the L-shaped cleats overlap the same surface member 7, allowing for the insertion of
40 screws 3 into designated aperture 25 in the said perforated fixing flange 4p to be drilled through the same surface member 7 into the aperture 26 in the in the same L-shaped fixing cleat 24. The fixing method herein described incorporating the same L-shaped cleat 24 ensures that the same surface member 7 is thoroughly secured relative to the said shaping member 1 and therefore any differential movement
45 caused by thermal expansion and contraction of the surface member relative to the shaping member will be constrained, preventing cracking of the filler material known as the settable compound 2 within normal operating conditions and within a range of sizes for the same invention.

Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting. Preferably install a suitable device such as lighting device 13 into opening 8 and secure appropriately.

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10 FIG 65 shows an example, as a cross sectional representation, of a shaping member according to this invention and applicable to all of the forms of the invention described in this document which are circular when viewed toward the exposed face (with the exception of shaping members designed to act as structural support members herein described).

15 FIG. 66 shows the same example as FIG. 65 represented as a reflected plan view relative to the orientation shown in FIG. 65.
FIG. 67 shows the shaping device depicted in FIG. 65 in operation and is seen as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

20 Referring to FIG 65, it can be seen that the shaping member according to this invention comprises a somewhat circular member of indefinite radius referred to as a proud protrusion 5. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the perforated fixing flange 4p. The same shaping member 1 forms an shaped opening in the surface member 7
25 which preferably may be used to house a light source or other utilitarian device or may be used for decorative purposes. This form of the invention utilises fixing cleats 27.

FIG 67 shows a form of the shaping member according to this invention incorporating spring metal cleats 27 and applicable to all of the forms of the invention described in this document (with the exception of the form of the invention in which the said shaping members designed to act as structural support members herein described and also the form of the invention incorporating L-shaped cleats). Spring metal cleats 27 may be attached to the said perforated edge 4p of the said shaping member 1 in such a manner that when they are inserted into a suitably shaped cut out in the said building board type surface members 7 the same spring metal cleats 27 will deform during insertion and resume their original shape upon insertion in such a manner that spring metal cleats 27 overlap the same surface member 7 allowing for the insertion of screw 3 into designated apertures in the said perforated fixing flange 4p to be drilled through the same surface member 7 into a perforation the same spring metal cleats 27. The fixing method herein described, incorporating the same spring metal cleats 27, ensures that the same surface member 7 is thoroughly secured relative to the said shaping member 1 and therefore any differential movement caused by thermal expansion and contraction of the same surface member 7 relative to the same shaping member 1 will be constrained, preventing
40 cracking of the said filler material, referred to in this document as the settable compound 2, within normal operating conditions and within a range of sizes for the same invention.
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FIG 68 shows an example, as a cross sectional representation, of a shaping member according to this invention and applicable to all of the forms of the invention

described in this document which are circular when viewed toward the exposed face (with the exception of shaping members designed to act as structural support members herein described).

FIG. 69 shows the same example as FIG. 68 represented as a plan view relative to the orientation shown in FIG. 68.

FIG. 70 shows the application of such a shaping member shown in FIG. 68 for creating apertures in surface members 7, as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

Referring to FIG 70, it can be seen that the shaping member according to this invention comprises a somewhat circular shape of indefinite radius referred to as a proud protrusion 5. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the perforated fixing flange 4p.

The same shaping member 1 incorporates an aperture, which preferably may be used to house a light source or other utilitarian device or may be used for decorative purposes. This form of the invention utilises pivoting brackets 28.

FIG. 70 shows form of the invention depicted in FIG. 68 in operation and is applicable to all of the forms of the invention described in this document (with the exception of the form of the invention in which the said shaping members designed to act as structural support members herein described and also the form of the invention incorporating L-shaped cleats, spring metal cleats and fixing flanges).

The said pivoting bracket 28 may be attached to the said perforated fixing flange 4p of the said shaping member 1 in such a manner that when they are inserted into a suitably shaped cut out in the said building board type surface members 7, the same pivoting bracket 28 may be rotated with a screw driver or other tool in such a manner that the same pivoting bracket 28 overlaps the same surface member 7 allowing for the insertion of a screw 3 into the designated aperture 25 in the said perforated fixing flange 4p to be drilled through the same surface member 7 into perforation 26 in the same pivoting bracket 28. The fixing method herein described (FIG 70) incorporating the same pivoting bracket 28 ensures that the same surface member 7 is thoroughly secured relative to the said shaping member 1 and therefore any differential movement caused by thermal expansion and contraction of the same surface member relative to the same shaping member will be constrained, preventing cracking of the said filler, referred to in this document as the settable compound 2, within normal operating conditions.

FIG 71 shows an example, as a cross sectional representation, of a shaping member according to this invention and applicable to all of the forms of the invention described in this document (with the exception of shaping members designed to act as structural support members herein described and those with fixing flanges 4).

FIG. 72 shows the same example as FIG. 71 represented as a plan view relative to the orientation shown in FIG. 71.

FIG. 73 shows the application of the same form of the invention seen in FIG. 71, as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

Referring to FIG 71, it can be seen that the shaping member according to this invention comprises a somewhat circular member of indefinite radius referred to as the shaping member 1. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the perforated fixing flange 4p. The same shaping member 1 forms an aperture, which preferably may be used to

house a light source or other utilitarian device or may be used for decorative purposes. This form of the invention utilises spring metal clips 27.

FIG. 73 shows a form of the invention and applicable to other forms of the invention described in this document. Spring metal clip 27 may be attached to the inside edge
5 of the said perforated fixing flange 4p of the said shaping member 1 in such a manner that when the present invention is inserted into a suitably shaped cut out in the said building board type surface member 7, the same spring metal clips will deform during insertion and resume their original shape upon insertion in such a
10 manner that the same spring metal clip 27 puts force on the same surface member 7 in order to hold the said shaping member 1 still relative to the same surface member 7. The edge and the surrounding surfaces of the said cut out are to be covered with suitable adhesive before insertion of the present form of the invention into the said cut out. The fixing method herein described incorporating the same spring metal
15 clips 27 ensures that the same adhesive is allowed to dry in a manner such that the said surface member 7 is thoroughly adhered to the said shaping 1 and therefore any differential movement caused by thermal expansion and contraction of the same surface member 7 relative to the same shaping member 1 will be constrained, preventing cracking of the said filler material, referred to in this document as the
20 settable compound 2, within normal operating conditions.

FIG 74 shows an example, as a cross sectional representation, of a shaping member according to this invention. Its purpose is to form passages, ducts, conduits, pipes etc. within the thickness of the surface member 7.

FIG. 75 shows the same example as FIG. 74 represented as an elevation illustrating the side view of the said invention, which may be of indefinite length.

25 FIG. 76 shows the same example as FIG. 74 represented as a reflected plan view relative to the orientation shown in FIG. 74.

FIG. 77 shows the application of such a shaping member for creating passages, ducts, conduits etc. in surface members 7, as a cross sectional representation when
30 installed into a plasterboard ceiling (plasterboard being the surface member 7), which is fixed to a concrete slab or other solid member.

Referring to FIG 74, it can be seen that the shaping member according to this invention comprises an orthogonal device of indefinite length. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the perforated fixing flange 4p. The shaping member 1 forms a
35 passage, which preferably may be used to house cabling, or may also be used for the passage of liquids and gases or it may be used for other utilitarian purposes.

FIG. 77 shows the shaping device depicted in FIG 74 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably
40 plasterboard, which is attached to a concrete slab 19.

This devise allows the surface member 7 (in this case the plasterboard ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish. This form of the invention is preferably not apparent to the human eye when installed. Its
45 purpose is to form a passage behind the surface and normally within the depth of the surface member 7.

To install, create or allow for a gab in the surface member 7 that is slightly larger than the distance between the two proud protrusions 5 and 5 before inserting the shaping member 1. Fix the surface member 7 to the shaping member 1 with screws

3 inserted between perforated fixing flange 4p and the concrete slab 19. Other fixing devices or techniques may be used so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may also be incorporated with reinforcing 12 instead of perforated fixing flange 4p and may also be incorporated with fixing flange 4 instead of perforated fixing flange 4p in situations where it is preferable to install the said shaping member 1 before the installation of the surface member 7.

FIG 78 shows an example, as a cross sectional representation, of a shaping member according to this invention. Its purpose is to form the housing and diffuser of a light fitting within the thickness of a wall or nib lined with surface member 7.

FIG. 79 shows the same example as FIG. 78 represented as an elevation illustrating the side view of the said invention, which may be of indefinite length. The perforated fixing flange 4p is shown along one side of the shaping member 1 and the reflector 15 is seen on the other side of the shaping member 1.

FIG. 80 shows the application of such a shaping member for creating an illumination system, as a cross sectional representation when installed into a plasterboard wall (plasterboard being the surface member 7), or blade like protrusion.

Referring to FIG 78, it can be seen that the shaping member according to this invention comprises a device of indefinite length. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the perforated fixing flange 4p. The shaping member 1 forms a housing, which preferably may be used to house a lighting system, which preferably includes a light source 13 and, if necessary, electrical or electronic control equipment 29.

FIG. 80 shows the shaping device depicted in FIG. 78 in operation. It can be seen that the wall or blade like protrusion is lined with a building board type surface member 7, preferably plasterboard.

This device allows the surface member 7 (in this case the plasterboard wall or ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, fit the shaping member 1 onto the end of a wall lined or blade like architectural element lined with the surface member 7. Preferably the distance between the two opposite perforated fixing flanges 4p should be slightly larger than the width of the member to which it is to be fitted. Slide the perforated fixing flanges over the edges of the surface members to which it is to be fixed so that the width of the perforated fixing flange 4p covers the surface members in accordance with FIG. 80. Fix the surface member 7 to the shaping member 1 with screws 3 after inserting between perforated fixing flange 4p and the framing member 6. Other fixing devices or techniques may be used so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and

even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may also be incorporated with reinforcing 12 instead of perforated fixing flange 4p and may also be incorporated with fixing flange 4 instead of perforated fixing flange 4p in situations where it is preferable to install the said shaping member 1 before the installation of the surface member 7.

FIG 81 shows an example, as a cross sectional representation, of a shaping member according to this invention. Its purpose is to form the housing and diffuser of a light fitting within the thickness of a wall or nib lined with surface member 7.

FIG. 82 shows the same example as FIG. 81 represented as an elevation illustrating the side view of the said invention, which may be of indefinite length. The fixing flange 4 is shown along one side of the shaping member 1 and the reflector 15 is seen on the other side of the shaping member 1.

FIG. 83 shows the application of such a shaping member for creating an illumination system, as a cross sectional representation when installed into a plasterboard wall (plasterboard being the surface member 7), or blade like protrusion.

Referring to FIG 81, it can be seen that the shaping member according to this invention comprises a device of indefinite length. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the fixing flange 4. The shaping member 1 forms a housing, which preferably may be used to house a lighting system, which preferably includes a light source 13 and, if necessary, electrical or electronic control equipment 29.

FIG. 83 shows the shaping device depicted in FIG. 81 in operation. It can be seen that the wall or blade like protrusion is lined with a building board type surface member 7, preferably plasterboard.

This device allows the surface member 7 (in this case the plasterboard wall or ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, fit the shaping member 1 onto the framing member 6 at the end of a wall or blade like architectural element to be lined with the surface member 7. Preferably the distance between the two opposite fixing flanges 4 should be slightly larger than the width of the framing member 6 to which it is to be fitted. Slide the fixing flanges 4 over the edges of the framing member 6 to which it is to be fixed so that the width of the fixing flange 4 covers the framing members in accordance with FIG. 83. Install the surface member 7 so that it butts up against the proud protrusion 5 of the shaping member 1 in accordance with FIG. 83. Fix the surface member 7 to the shaping member 1 with screws 3 drilled through the surface member 7 and the fixing flange 4 and into the framing member 6. Other fixing devices or techniques may be used so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the

surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting. It will be realized that the shaping member according to this invention is not
5 restricted to the form illustrated and may also be incorporated with reinforcing 12 instead of fixing flange 4p and bendable locking flange 9 and other appropriate forms of the invention.

FIG 84 shows an example, as a cross sectional representation, of a shaping member according to this invention. Its purpose is to form the housing of a light fitting within
10 the thickness of the surface member 7.

FIG. 85 shows the same example as FIG. 84 represented as an elevation illustrating the side view of the said invention, which may be of indefinite length. The perforated fixing flange 4p is shown along one side of the shaping member 1.

FIG. 86 shows the application of such a shaping member for creating an illumination system when the device is active and a shadow line when the device is switched off as a cross sectional representation when installed into a plasterboard lined ceiling or wall (plasterboard being the surface member 7).
15

Referring to FIG 84, it can be seen that the shaping member, according to this invention, comprises a device of indefinite length. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the perforated fixing flange 4p. The shaping member 1 forms a housing, which preferably may be used to house a lighting system 13 such as a light emitting diode (LED) system.
20

FIG. 86 shows the shaping device depicted in FIG. 84 in operation. It can be seen that the wall or ceiling is lined with a building board type surface member 7, preferably plasterboard.
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This device allows the surface member 7 (in this case the plasterboard wall or ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.
30

To install, fit the shaping member 1 onto the end of the surface member 7 normally at the junction with a wall or ceiling. The surface member should preferably be installed to accommodate the shaping member to avoid trimming the same surface member 7 to accommodate the shaping member 1. Insert the shaping member 1 so that the width of the perforated fixing flanges 4p covers the edge of the surface member to which it is to be fixed in accordance with FIG. 80. Fix the shaping member 1 to the surface member 7 with screws 3 inserted through the perforated fixing flange 4p and the surface member 7 and into the framing member 6. Other fixing devices or techniques may be used so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If
35
40
45 necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may also be incorporated with reinforcing 12

instead of perforated fixing flange 4p and may also be incorporated with fixing flange 4 instead of perforated fixing flange 4p in situations where it is preferable to install the said shaping member 1 before the installation of the surface member 7.

FIG. 87 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 88 shows the same example as FIG. 87 represented as a reflected plan view relative to the orientation shown in FIG. 87.

FIG. 89 shows the application of such a shaping device, as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

Referring to FIG 87, it can be seen that the shaping member according to this invention comprises a rectilinear member of indefinite size. The part of the said invention, which is used to fix the same invention to the surface member 7 is referred to as the fixing flange 4, which, in this form of the invention, is only seen on the two long sides of the shaping member 1. In this form of the invention the shaping member 1 houses a light source 13, electronic control equipment 29 for the light source and a diffuser to disperse the light emitted from the device and thereby reduce glare.

FIG. 89 shows the shaping device depicted in FIG. 87 in operation. It can be seen that the wall or ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to framing 6.

This device allows the surface member (in this case the ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the wall or ceiling lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, cut a rectangular opening into the surface member 7 slightly larger than the inner dimensions of the fixing flange. Insert the shaping member through the opening so formed from below and position in accordance with FIG. 89. The fixing flange 4, in this form of the invention, is only used on two sides to allow ease of insertion into the same opening. Fix the surface member 7 to the fixing flanges 4 of the shaping member 1 with screws 3 or other fixing devices or techniques 1 so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated. It may also be incorporated with reinforcing 12 or perforated fixing flange 4p, bendable locking flange 9 or other appropriate forms of the invention.

FIG. 90 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 91 shows the same example as FIG. 90 represented as an elevational view looking into the exposed face of the shaping member 1.

FIG. 93 shows the application of such a shaping device, as a cross sectional representation, when installed into a plasterboard lined wall (plasterboard being the

surface member 7) and FIG.92 shows an enlarged detail of the part of the same section indicated by a circle.

FIG. 94 shows the application of such a shaping device, as in plan view, when installed into a plasterboard lined wall (plasterboard being the surface member 7).

5 Referring to FIG 90, it can be seen that the shaping member according to this invention comprises a device of indefinite size. The part of the said invention, which is used to fix the same invention to the surface member 7 is referred to as the fixing flange 4, which, in this form of the invention, is only seen on three sides of the shaping member 1. In this form of the invention the shaping member 1 houses a light source 13 and electronic control equipment 29 for the light source. It also utilises a
10 wedging flange 10 to facilitate the insertion of the shaping member 1 into the opening in the surface member 7 during installation.

FIG. 92, FIG. 93 and FIG. 94 shows the shaping member depicted in FIG. 90 in operation. It can be seen that the wall or ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to framing 6.
15

The fixing flange 4 allows the surface member 7 to be joined with the shaping member 1 in such a way as to form a continuous part of the wall or ceiling lining so as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

20 To install, cut a rectangular opening into the surface member 7 of a slightly larger size than the shape formed by the proud protrusion 5 of the fixing flange. Insert the shaping member through the opening so formed and position in accordance with FIG. 93 and FIG. 94. The standard fixing flange 4, in this form of the invention, is only used on three sides to allow ease of insertion into the same opening. After the shaping member 1 is inserted into the said opening wedge one side of the opening between the wedging flange 10 and the fixing flange 4 opposite and in the same operation locate the shaping member 1 so that the three standard fixing flanges 4 come into contact with the rear face of the surface member 7. Fix the surface member 7 to the fixing flanges 4 of the shaping member 1 with screws 3 or other
25 fixing devices or techniques 1 so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

30 Preferably adhesive should be applied to the wedging flange 10 and the adjacent fixing flange 4 before the surface member 7 is inserted between the two members. Preferably adhesive should be used to bond the shaping member 1 and surface member 7 in any form of this invention to ensure good bonding between the two members.

45 It will be realized that the shaping member according to this invention is not restricted to the form illustrated. It may also be incorporated with reinforcing 12 or perforated fixing flange 4p and installed appropriately according to this invention. FIG. 95 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 96 shows the same example as FIG. 95 represented as an elevational view looking into the exposed face of the shaping member 1.

FIG. 97 shows the same example as FIG. 95, as a cross sectional representation along its length facing the exposed face of the diffuser 15 according to this invention.

5 FIG. 98 shows an application of the same example as FIG. 95, as in plan view, when installed into a plasterboard lined wall (plasterboard being the surface member 7).

FIG. 99 shows an application of the same example as FIG. 97, as a cross sectional representation, when installed into a plasterboard lined wall (plasterboard being the surface member 7).

10 Referring to FIG 95, it can be seen that the shaping member according to this invention comprises a member of indefinite size formed into a fixing flange 4p, proud protrusion 5 as well as the main body of the shaping member 1. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the fixing flange 4p used in conjunction with clamping flange 4c.

15 Preferably this form of the invention forms an shape in a wall or ceiling lining, which may be used to house a light source or other utilitarian device or may be used for decorative purposes. The said opening is shaped so as to facilitate the positioning of a light diffuser 15, light source 13 and electronic control equipment for the light source 13.

20 Referring to FIG 96, FIG 98 and FIG 99, it can be seen that the shaping member 1 has a perforated fixing flange 4p about its perimeter and clamping flange 4c on two sides. It can be seen that the diffuser 15 is formed in a L-shape and is secured in position with the use of a locking mechanism 30 such as a knob or nut and bolt, which preferably be operated by two human fingers so that it may be fastened out of
25 view.

FIG. 98 and FIG. 99 shows the shaping device depicted in FIG 95. It can be seen that the ceiling or wall is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

30 This devise allows the surface member 7 (in this case the plasterboard ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

35 To install, form an opening in the surface member 7, the length of which should be slightly longer than the length of the body of the shaping member 1 measured from proud protrusion 5 to the proud protrusion 5 opposite and the width of the same opening should be slightly longer than the width of the body of the shaping member 1 plus the width of the clamping flange 4c.

Preferably apply appropriate adhesive to the perimeter of the opening.

40 Insert the shaping member 1 so that the perforated fixing flange 4c is positioned in contact with the face of the surface member 7 and so that the shaping member is centred in the same opening. The clamping flanges 4c are to be positioned in line with the rear face of the surface member 7. Fix the surface member 7 to the shaping member 1 with screws 3 inserted between perforated fixing flange 4p and clamping flange 4 c in such a way as to ensure that the perforated fixing flange 4p and the
45 clamping flange 4c grip the surface member 7 due to the action of the shelf tapping screws 3 being drilled into the two said flanges 4p and 4c.

Other fixing devices or techniques may be used so as to ensure a firm connection and prevent any visible movement between the two members. Also fix the same surface member 7 to the faming members 6.

Apply adhesive through the perforations in the perforated fixing flange 4p to fix any void between the two flanges 4p and 4c. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting. Preferably, reflector 15 should be position in accordance with FIG 98 and FIG 99.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may formed in any feasible shape. And may also be incorporated with reinforcing 12 and/or fixing flange 4 or with wedging flange 10 as per the example described in fig 90.

The diffuser 15, in this form of the invention or any other form of the invention, may be of any shape and may be held in position by any suitable support mechanism including spring clips, "Velcro" type devices and magnetic devices.

FIG. 100 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 101 shows an example of the same shaping member as FIG. 100 represented as a reflected plan view relative to the orientation shown in FIG. 100.

FIG. 102 shows the application of such a shaping member 1 for creating shapes in the surface member 7 that facilitate the installation of a diffuser 15 as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7).

Referring to FIG 100, it can be seen that the shaping member according to this invention comprises a somewhat orthogonal member of indefinite size formed into a fixing flange 4, proud protrusion 5 as well as the main body of the shaping member 1. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the fixing flange 4. This form of the invention forms an opening in the surface member 7, which preferably may be used to support a light fitting or other utilitarian device or may be used for decorative purposes. The said opening is shaped so as to seat a removable hatch and the hatch may also double as a light fitting.

Referring to FIG. 100 and FIG. 101, it can be seen that the shaping member 1 is formed into a rectangular body and has a fixing flange 4 about its perimeter onto which the surface member 7 may be fixed and also has primary framing supports 21 about its perimeter.

FIG. 102 shows the shaping device depicted in FIG. 100 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

This devise allows the surface member 7 (in this case the plasterboard ceiling lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, suspend the shaping member 1 with the use of rods, threaded rods with bolts or by otherwise attaching them to framing members so that the fixing flange 4 is in line with the rear face of framing members 6. Fix the surface member 7 to the shaping member 1 with screws 3 or other fixing devices or techniques so as to

ensure a firm connection and prevent any visible movement between the two members and also fix the same surface member 7 to the framing members 6. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

5 An illumination device 32, which also may be used as a removable access panel or other utilitarian or decorative device may preferably be positioned in the shaping member in accordance with FIG. 102.

As the illumination device 32 containing the lamps and control equipment is an enclosed unit, it may be pushed up and placed to one side, or it may be hinged up to open. Access to the ceiling can then be gained through the opening. The frame into which it sits is shown splayed but may be made in any number of shapes and sizes. If a number of these fittings are used in an interior they may be used instead of a conventional ceiling grid with removable ceiling tiles, as access into the ceiling can be made where ever the fitting is located.

15 It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form square, rectangular, oblong or any other shape. It may also be incorporated with reinforcing 12.

It can be said that, in this form of the invention, the shaping member 1, as well as shaping the surface member 7, also forms part of the structural support system for the same surface member 7. Preferably, reflector 15 should be positioned in accordance with FIG. 102.

20 It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form rectangular, oblong, curvilinear or any other shape. It may also be incorporated with reinforcing 12, perforated fixing flange 4p, wedging flange 10, bendable locking flange 9 or other appropriate forms of the invention and installed appropriately according to this invention.

FIG. 103 shows an example, as a cross sectional representation, of a shaping member according to this invention.

35 FIG. 104 shows the same example as FIG. 103 represented as an elevational view. FIG. 105 shows the application of such a shaping member for creating portals in walls lined with surface members 7 on both faces, as a cross sectional representation when installed into a plasterboard wall (plasterboard being the surface member 7).

40 Referring to FIG 103, it can be seen that the shaping member 1 according to this invention comprises a shape that may be used as a door jamb and also has a fixing flange 4 and a proud protrusion 5 formed into it. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the fixing flange 4. The same shaping member forms an aperture or portal in a wall, which preferably may be used to support and frame a door or other utilitarian device or may be used for decorative purposes.

45 FIG. 105 shows the shaping device depicted in FIG. 103 in operation. It can be seen that the wall is lined with a building board type surface member 7, preferably plasterboard, which is attached to wall framing 6.

This device allows the surface member (in this case the wall lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the wall lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish..

5 To install, frame up for a door opening into the wall in such a way that the fixing flange 4 is in contact with the framing about the perimeter of one side of the shaping member 1. Fix the fixing flange 4 of the shaping member 1 to the framing 6. Insert additional framing members 6a and fix to framing member 6 and to fixing flange 4. Install the surface members 7 and fix to framing members 6, and 6a and to fixing flanges 4 with screws 3 or with other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members. Apply 10 settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a 15 trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting. Preferably install a door 16 and hinge on one side and provide a locking mechanism 20 etc. as is standard building practice.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form any other shape. It may also be incorporated with reinforcing 12 and/or perforated fixing flange 4p and installed appropriately according to this invention.

25 FIG. 106 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 104 shows a similar example as FIG. 106 represented as an elevational view.

30 FIG. 107 shows the application of such a shaping member for creating portals in walls lined with surface members 7 on both faces, as a cross sectional representation, when installed into a plasterboard wall (plasterboard being the surface member 7).

Referring to FIG 106, it can be seen that the shaping member 1 according to this invention comprises a shape that may be used as a door jamb and also has a fixing flange 4 and a proud protrusion 5 formed into it. The part of the said invention, which 35 is used to fix the same invention to the surface member 7, is referred to as the fixing flange 4. The same shaping member forms an aperture or portal in a wall, which preferably may be used to support and frame a door or other utilitarian device or may be used for decorative purposes.

40 FIG. 107 shows the shaping device depicted in FIG. 106 in operation. It can be seen that the wall is lined with a building board type surface member 7, preferably plasterboard, which is attached to wall framing 6.

This device allows the surface member (in this case the wall lining) to be joined with the shaping member 1 in such a way as to form a continuous part of the wall lining as no joint is apparent between the shaping member 1 and the surface member 7 45 when both surfaces are finished with the same paint finish.

To install, locate the shaping member 1 in position before installing the framing members 6. The framing members 6 should be installed in such a way that the fixing flange 4 is in contact with the framing about the perimeter of the shaping member 1. Fix the fixing flange 4 of the shaping member 1 to the framing member 6. Install the

surface members 7 and fix to framing members 6 and to fixing flanges 4 with screws 3 or with other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

Preferably install a door 16 and hinge on one side and provide a locking mechanism etc. as is standard building practice.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form any other shape. It may also be incorporated with reinforcing 12, perforated fixing flange 4p or bendable locking flange 9 and installed appropriately according to this invention.

FIG. 108 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 104 shows a similar example as FIG. 108 represented as an elevational view.

FIG. 109 shows the application of such a shaping member for creating portals in walls lined with surface members 7 on both faces, as a cross sectional representation, when installed into a plasterboard wall (plasterboard being the surface member 7).

Referring to FIG 108, it can be seen that the shaping member 1 according to this invention comprises a shape that may used as a door jamb and also has a perforated fixing flange 4p and a proud protrusion 5 formed into it. The part of the said invention, which is used to fix the same invention to the surface member 7, is referred to as the perforated fixing flange 4p. The same shaping member forms an aperture or portal in a wall, which preferably may be used to support and frame a door or other utilitarian device or may be used for decorative purposes.

FIG. 109 shows the shaping device depicted in FIG. 108 in operation. It can be seen that the wall is lined with a applied surface member 7 such as cement render or plaster (or both), which is normally applied to a masonry wall such as brickwork. This devise allows the surface member (in this cement render) to be joined with the shaping member 1 in such a way as to form continuous part of the wall lining as that the joint between the shaping member 1 and the surface member 7 is not readily apparent when both surfaces are finished with the same paint finish.

To install, locate the shaping member 1 in position before installing the masonry wall 33. Masonry wall 33 should be installed in such a way that the perforated fixing flange 4p is in contact with the masonry wall 33 about the perimeter of the shaping member 1. Fix the perforated fixing flange 4p of the shaping member 1 (such as cement render) to the masonry wall 33. Apply the surface member 7 to masonry wall 33 and to fixing flanges 4p so as to ensure a firm connection and prevent any visible movement between the two members. This may be achieved with the use of an appropriate tool such as a trowel, which is run along the proud protrusion 5 and the surface member 7 of the masonry wall 33. Preferably pack any void between the masonry wall 33 and the shaping member 1 with cement render or grout. Ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

Preferably install a door 16 and hinge on one side and provide a locking mechanism etc. as is standard building practice.

It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form any other shape.

5 FIG. 110 shows an example, as a cross sectional representation, of a shaping member according to this invention.

FIG. 111 shows the example as depicted in FIG. 110 and represented as an elevational view.

10 FIG. 112 shows the application of such a shaping member for creating fenestrations in walls lined with surface members 7 on both faces, as a horizontal cross sectional representation, when installed into a cement rendered cavity brick and timber frame plasterboard lined wall (preferably plasterboard being the surface member 7 internally and cement render being the surface member 7 externally).

15 Referring to FIG 110, it can be seen that the shaping member 1 according to this invention comprises a device that may used as a window frame and also has a fixing flange 4 and a proud protrusion 5 formed into it. The part of the said invention, which is used to fix the same invention to the surface member 7 (cement render in this case), is referred to as the fixing flange 4p. The same shaping member forms an aperture or fenestration in a wall, which preferably may be used to support and

20 frame a window or other utilitarian device or may be used for decorative purposes. FIG. 112 shows the shaping device depicted in FIG. 110 in operation. It can be seen that the masonry wall 33 is lined with an applied surface member 7r such as cement render or plaster (or both), which is normally applied to a masonry wall 33 such as brickwork.

25 This device allows the surface member 7r (in this cement render) to be joined with the shaping member 1 in such a way as to form continuous part of the wall lining as that the joint between the shaping member 1 and the surface member 7 is not readily apparent when both surfaces are finished with the same paint finish. This device also allows the surface member 7 (in this case the wall lining) to be joined with the

30 shaping member 1 in such a way as to form a continuous part of the wall lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, locate the shaping member 1 in position with framing members 6 before installing the masonry wall 33.

35 Provide framing members 6 and support the shaping member 1 in such a way that the fixing flange 4 is in contact with the framing about the perimeter the shaping member 1. Fix the fixing flange 4 of the shaping member 1 to the framing member 6.

Masonry wall 33 should be installed in such a way that the fixing flange 4p is in contact with the masonry wall 33 about the perimeter of the shaping member 1. Fix

40 the fixing flange 4p of the shaping member 1 to the masonry wall 33. Apply the surface members 7r to masonry wall 33 and to fixing flanges 4p so as to ensure a firm connection and prevent any visible movement between the two members. This may be achieved with the use of an appropriate tool such as a trowel, which is run along the proud protrusion 5 and parallel to the masonry wall 33. Preferably pack

45 any void between the masonry wall 33 and the shaping member 1 with cement render or grout. Ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting. Install the surface members 7 and fix to framing members 6 and to fixing flanges 4

with screws 3 or with other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members.

Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members.

5 This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

10 Preferably install a window sash 17 and hinge on one side and provide a locking mechanism etc. as is standard building practice. It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form any other shape.

15 FIG. 113 and FIG. 114 shows examples, as a short cross sectional representation, of shaping members according to this invention.

FIG. 115 shows the application of such shaping members 1 for creating shapes in the ceiling lining ("lining" in this document refers to the combination of the surface member 7 and the shaping member 1) to facilitate the installation of a light source 13 and reflector 20 and is shown as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7) using a framing system that consists of primary framing members 6p and secondary framing members 6 suspended with adjustable suspension members 22 from another structural element such as a concrete slab.

25 Referring to FIG 113 and FIG 114, it can be seen that the shaping member 1 has a perforated fixing flange 4 about its perimeter, which may be fixed to the surface member 7. It can be seen that the primary framing support member 21 has two flanges into which a framing member 6p may be inserted. The device in total may be supported by a suspension mechanism 22 in a similar manner to the way that the surrounding framing system consisting of members 6 and 6p is suspended.

30 FIG. 115 shows the shaping device depicted in FIG 113 and FIG 114 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

This device allows the surface member 7 (in this case the plasterboard) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

35 To install, preferably suspend the primary framing members 6p along with shaping member 1 with the use of rods, threaded rods with bolts or other framing members or methods so the flange 4 is in line with the intended rear face of surface member 7.

40 Normally the device consisting of shaping members 1 and reflector 20 is installed before the primary framing members 6p are suspended. Insert primary shaping member 6p into support 21 during installation. Fix secondary framing members 6 to the underside of the primary framing members 6p, ensuring that a secondary framing member 6 is positioned between the fixing flange 4 and the primary framing member 6p along the length of the same fixing flange 4 in accordance with the drawings. Fix the surface member 7 to the fixing flange 4 of shaping member with screws 3. Other fixing devices or techniques may be used so as to ensure a firm connection and prevent any visible movement between the shaping member 1 and the surface member 7. Also fix the same surface member 7 to the framing members 6. Apply

5 settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. In situations when two shaping members 1 are in close proximity as in FIG. 115 the settable compound 2 may be applied to the surface member 7 between adjacent proud protrusions 5. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the two adjacent proud protrusions 5. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

10 It can be said that, in this form of the invention, the shaping member 1, as well as shaping the surface member 7, also forms part of the structural support system for the same surface member 7 as well as for the primary framing member 6p. Preferably reflectors 20 in accordance with FIG. 115 may be removable allowing access to the area above the suspended ceiling. It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form square, rectangular, oblong, curvilinear or any other shapes. FIG. 116 shows an example, as a cross sectional representation, of a shaping member according to this invention.

15 FIG. 117 shows the application of such shaping members 1 for creating shapes in the ceiling lining ("lining" in this document refers to the combination of the surface member 7 and the shaping member 1) to facilitate the installation of a light source 13 and reflector 20 and is shown as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7) using a framing system that consists of framing members 6 fixed to a structural element such as a concrete slab 19.

20 Referring to FIG 116, it can be seen that the shaping member 1 has a perforated fixing flange 4 about its perimeter, which may be fixed to the surface member. It can be seen that the shaping member houses the light source 13 and the electronic control gear 29 (for the light source). A light reflector 20 is also incorporated.

25 FIG. 117 shows the shaping device depicted in FIG 116 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6. This device allows the surface member 7 (in this case the plasterboard) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining so that no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish. To install, preferably fix the framing members 6 to the soffit of the slab 19. Also fix the same surface member 7 to the framing members 6. Install the device consisting of shaping members 1 and reflector 20 to the soffit of the slab 19. Allow for a gap in the surface member 7 for the installation of the shaping members 1. Ensure that a framing member 6 is located between the perforated fixing flange 4p and the underside of the slab 19 along the length of the perforated fixing flange 4p. Fix the perforated fixing flange 4p of shaping member 1 to the surface member 7 and to the framing member 6 with screws 3. Other fixing devices or techniques may be used so as to ensure a firm connection and prevent any visible movement between the shaping member 1 and the surface member 7. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the two adjacent proud

protrusions 5. Three applications of the said settable compound is normally needed to achieve a good finish when perforated fixing flange 4p is used. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting. It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form square, rectangular, oblong, curvilinear or any other shapes and the profile of the shaping members 1 and reflector 20 may be formed into any shape.

FIG. 118 shows an example, as a cross sectional representation, of a shaping member according to this invention intended for use as a light fitting.

FIG. 119 shows the application of such shaping members 1 for creating shapes in the ceiling lining ("lining" in this document refers to the combination of the surface member 7 and the shaping member 1) to facilitate the installation of a light source 13 and reflector 20 and is shown as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7) using a framing system that consists of framing members 6 fixed primary framing members 6p..

Referring to FIG 118, it can be seen that the shaping member 1 has a fixing flange 4 about its perimeter, which may be fixed to the surface member. It can be seen that the shaping member houses the light source 13 and the electronic control gear 29 (for the light source). A light reflector 20 is also incorporated.

FIG. 119 shows the shaping device depicted in FIG 118 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

This device allows the surface member 7 (in this case the plasterboard) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, preferably fix the framing members 6 to primary framing members 6p.

Also fix the same surface member 7 to the framing members 6. Allow for a gap in the surface member 7 for the installation of the shaping members 1. Fix the device consisting of shaping members 1 and reflector 20 to framing members 6 and 6p.

Ensure that a framing member 6 is located between the fixing flange 4 and the underside of the slab 19 along the length of the fixing flange 4. Fix the fixing flange 4 of shaping member 1 to the rear face of surface member 7 and to the framing member 6 with screws 3. Other fixing devices or techniques may be used so as to ensure a firm connection and prevent any visible movement between the shaping member 1 and the surface member 7. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusions 5 and the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting. Preferably reflectors 20 in accordance with FIG. 115 may be removable allowing access to the area above the suspended ceiling. It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form square, rectangular, oblong, curvilinear or any other shapes and the profile of the shaping members 1 and reflector 20 may be formed into any shape.

Preferably reflectors 20 in accordance with FIG. 115 may be removable allowing access to the area above the suspended ceiling. It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form square, rectangular, oblong, curvilinear or any other shapes and the profile of the shaping members 1 and reflector 20 may be formed into any shape.

FIG. 120, FIG. 121, FIG. 122, FIG. 123 and FIG. 124 shows examples, as a short cross sectional representation, of shaping members according to this invention.

FIG. 125 shows the application of such shaping members 1 for creating shapes in the ceiling lining ("lining" in this document refers to the combination of the surface member 7 and the shaping member 1) to facilitate the installation of a light source 13 and reflector 20 and is shown as a cross sectional representation when installed into a ceiling coated with a layer of plaster (plaster being the surface member 7) applied directly to the soffit of a reinforced concrete slab. The wall supporting the same slab on the left side is finished with layer of cement render and a second layer consisting of plaster to provide a high quality finish which is standard practice when high quality finishes are required. The perforated fixing flange in this form of the invention is designed to accommodate both cement render and plaster finishes. The wall on the right side of the figure is finished with cement render only and the perforated fixing flange is designed to accommodate the one layer of cement render as is commonly used in architectural applications.

Referring to FIG. 120, FIG. 121, FIG. 122, FIG. 123 and FIG. 124, it can be seen that the shaping member 1 has a perforated fixing flange 4p or 4r+p about its perimeter, which may be fixed the surface member of render, plaster or render finished with plaster. FIG. 122 shows an enlarged view of the fixing flange 4r+p as indicated by the circles joined with a line. FIG. 121 shows an enlarged view of the fixing flange 4p as indicated by the circles joined with a line.

FIG. 125 shows the shaping devices depicted in FIG. 120, FIG. 121, FIG. 122, FIG. 123 and FIG. 124 in operation.

FIG. 126 shows an enlarged view of FIG. 121 (the connection between the surface member 7p and the perforated fixing flange 4p of the shaping member 1) in operation as indicated by the circles joined with a line.

It can be seen that in this example the ceiling is lined with an applied plaster type surface member 7p, commonly referred to as hard plaster finish or set plaster, which is applied to walls or ceilings when wet (that is in a plastic state with a high water content prior to setting).

The device in FIG. 121 and FIG. 126 allows the surface member 7p (in this case applied plaster) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining so as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, preferably fix shaping member 1 with the use screws 3, or other appropriate fixing devices so that fixing flange 4p is in line with the intended soffit of slab 19. Other fixing techniques may be used so as to ensure a firm connection and prevent any visible movement between the shaping member 1 and the slab 19.

Normally the device consisting of shaping members 1 and reflector 20 is installed before the surface member 7p is applied. Apply the surface member 7p to the soffit of the slab 19 and level with and in contact with the proud protrusion 5, covering the perforated fixing flange 4p of shaping member. In situations when two shaping members 1 are in close proximity, as in FIG. 125, the surface member 7p may be applied to the between adjacent proud protrusions 5. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the two adjacent proud protrusions 5. Ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

The device in FIG. 122 and shown in operation in FIG. 125 allows cement render with an applied plaster type surface member 7p to be joined with the shaping member 1 in such a way as to form a continuous part of the wall lining so as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install apply cement render to the wall 18 so that it is finished in line with and covering the perforated fixing flange 4r+p. After the same cement render sets and reaches an appropriate moisture content, apply the surface member 7p so that it is in line with the proud protrusion 5 and parallel with the wall 18. Ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

It can be seen on the right side of FIG. 125 that the shaping member 1 is joined to a surface member 7 which is, in this case, a layer of cement render without a covering coat of plaster. The perforated fixing flange 4r is used in this situation as it does not employ a step as seen in fixing flange 4r+p which is intended preferably for use with an applied plaster finish 7p. To install apply cement render 7r to the wall 18 so that it is finished in line with and covering the perforated fixing flange 4r. Ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting apart from a change in texture between the shaping member 1 and the surface member 7r. It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form rectilinear, oblong, curvilinear or any other shapes.

FIG. 127 shows an example portion, as a cross sectional representation, of a shaping members according to this invention.

FIG. 128 shows the same example as FIG. 127 as a cross sectional representation when installed.

FIG. 129 shows the application of the complete shaping member, a portion of which is the shown in FIG 127 and FIG. 128, as a cross sectional representation at a smaller scale, when installed into the junction of a plasterboard lined wall with a plasterboard lined ceiling (plasterboard being the surface member 7). The junction with the ceiling follows the same principles as described in FIG. 113 and therefore shall not be repeated. The junction of the shaping member 1 with the wall shall be described following.

Referring to FIG 127 and FIG. 129, it can be seen that the shaping member 1 according to this invention comprises a device of indefinite size and shape. The part of the said invention, which is used to fix the same invention to the surface member 7 is referred to as the fixing flange 4, which, in this form of the invention, normally may only be used on two sides of the shaping member 1 as it may run the entire length of the room or space into which it is installed. In this form of the invention the shaping member 1 houses a light source 13 and electronic control equipment 29 for the light source.

FIG. 128 and FIG. 129 shows the shaping member depicted in FIG. 127 in operation. It can be seen that the wall or ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to framing 6.

The fixing flange 4 allows the surface member 7 to be joined with the shaping member 1 in such a way as to form a continuous part of the wall or ceiling lining so as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, fix the shaping member 1 to the framing members 6 of the wall and ceiling with screws 3 before installing the surface member 7. Fix the surface member 7 to the fixing flanges 4 of the shaping member 1 and to the framing members 6 with screws 3 or other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting. It will be realized that the shaping member according to this invention is not restricted to the form illustrated. It may also be incorporated with reinforcing 12 as may all forms of this invention.

FIG. 130 shows an example portion, as a cross sectional representation, of a shaping members according to this invention.

FIG. 131 shows the same example as FIG. 130 as a cross sectional representation when installed.

FIG. 132 shows the application of the complete shaping member, a portion of which is the shown in FIG 130 and FIG. 131, as a cross sectional representation at a smaller scale, when installed into the junction of a plasterboard lined wall with a plasterboard lined ceiling (plasterboard being the surface member 7). The junction with the ceiling follows the same principles as described in FIG. 116 and therefore shall not be repeated. The junction of the shaping member 1 with the wall shall be described following.

Referring to FIG 130, it can be seen that the shaping member 1 according to this invention comprises a device of indefinite size, and length. The part of the said invention, which is used to fix the same invention to the surface member 7 is referred to as the fixing flange 4p, which, in this form of the invention, normally may only be used on two sides of the shaping member 1 as it may run the entire length of the room or space into which it is installed. In this form of the invention the shaping member 1 houses a light source 13 and electronic control equipment 29 for the light source.

FIG. 131 and FIG. 132 shows the shaping member depicted in FIG. 130 in operation. It can be seen that the wall or ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to framing 6.

The fixing flange 4p allows the surface member 7 to be joined with the shaping member 1 in such a way as to form a continuous part of the wall or ceiling lining so as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, fix the surface member 7 to the framing members 6 with screws 3 or other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members.

Fix the fixing flanges 4p of the shaping member 1 to the face of the surface member 7 by drilling screws through the same surface member 7 and into the framing members 6 of the wall and ceiling with screws 3 or other fixing devices or techniques so as to ensure a firm connection and prevent any visible movement between the two members.

Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. This may be achieved with the use of an appropriate tool such as a broad knife or a trowel, which is run along the proud protrusion 5 and the surface of the surface member 7. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting. It will be realized that the shaping member according to this invention is not restricted to the form illustrated. It may also be incorporated with reinforcing 12 as may all forms of this invention.

FIG. 133 shows examples, as a short cross sectional representation, of shaping members according to this invention.

FIG. 134 shows the application of such shaping members 1 for creating shapes in the ceiling lining ("lining" in this document refers to the combination of the surface member 7 and the shaping member 1) to facilitate the installation of a light source 13 and reflector 20 and is shown as a cross sectional representation when installed into a plasterboard ceiling (plasterboard being the surface member 7) using a framing system that consists of primary framing members 6p and secondary framing members 6 suspended with adjustable suspension members 22 from another structural element such as a concrete slab 19.

Referring to FIG 133, it can be seen that the shaping member 1 has a perforated fixing flange 4p about its perimeter, which may be fixed the surface member. It can be seen that the primary framing support member 21 has two flanges into which a framing member 6p may be inserted. The device in total may be supported by a suspension mechanism 22 in a similar manner to the way that the surrounding framing system consisting of members 6 and 6p is suspended.

FIG. 134 shows the shaping device depicted in FIG 133 in operation. It can be seen that the ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to ceiling framing 6.

This invention allows the surface member 7 (in this case the plasterboard) to be joined with the shaping member 1 in such a way as to form a continuous part of the ceiling lining as no joint is apparent between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, preferably suspend the primary framing members 6p along with shaping member 1 with the use of rods, threaded rods with bolts or any suitable suspension system so that the perforated flange 4p is in line with the intended face of surface member 7. Normally the device consisting of shaping members 1 and reflector 20 is installed before the primary framing members 6p are suspended. Insert primary framing member 6p into support 21 during installation. Fix the secondary framing members 6 to the underside of the primary framing members 6p. Insert the surface member 7 into the gap between the perforated fixing flange 4p and the clamping flange 4c and fix with screws 3. Other fixing devices or techniques may be used so as to ensure a firm connection and prevent any visible movement between the shaping member 1 and the surface member 7. Also fix the same surface member 7 to the framing members 6. Apply settable compound 2 to the junction between the proud protrusion 5 and the surface member 7 to provide a smooth and even surface between the two members. In situations when two shaping members 1 are in close proximity as in FIG. 134 the settable compound 2 may be applied to the connection mechanism between adjacent proud protrusions 5. This may be achieved with the

use of an appropriate tool such as a broad knife or a trowel, which is run along the two adjacent proud protrusions 5. If necessary sand the settable compound 2 after it dries to ensure a smooth surface, which preferably should be suitable for a paint finish and should preferably be finished so that no joint is visible after painting.

5 It can be said that, in this form of the invention, the shaping member 1, as well as shaping the ceiling lining also forms part of the structural support system for the same surface member 7 as well as for the primary framing member 6p.

10 It will be realized that the shaping member according to this invention is not restricted to the form illustrated and may be used to form square, rectangular, oblong, curvilinear or any other shapes.

FIG. 135 shows an example, as a cross sectional representation, of a shaping member according to this invention and FIG. 137 shows the gear tray 36 that is part of the same invention.

15 FIG. 136 shows the same example as FIG. 135 represented as an elevational view looking toward the face of the diffuser 15 of the shaping member 1 according to this invention.

FIG. 138 shows the same example as FIG. 137 represented as a plan view showing the top face of the gear tray 36 of the shaping member 1 according to this invention.

20 FIG. 139 shows the application of such a shaping device, as a cross sectional representation, when installed into a plasterboard lined ceiling and wall (plasterboard being the surface member 7).

Referring to FIG. 135, it can be seen that the shaping member according to this invention comprises a device of indefinite length. The part of the said invention, which is used to form a joint between the same invention and the surface member 7 is referred to as the covering flange 4f, which, in this form of the invention, is only seen on one side of the shaping member 1. In this form of the invention the shaping member 1 houses a light source 13 and electronic control equipment 29 for the light source mounted on a gear tray 36. It also utilises a clip-in support 34 to facilitate the fixing of the reflector 20 onto the framing.

30 FIG. 139 shows the shaping member depicted in FIG. 135 in operation. It can be seen that the wall or ceiling is lined with a building board type surface member 7, preferably plasterboard, which is attached to framing 6.

35 The fixing flange 4f allows the surface member 7 to be joined with the shaping member 1 in such a way as to minimise the appearance of the joint between the shaping member 1 and the surface member 7 when both surfaces are finished with the same paint finish.

To install, construct wall framing 6 before suspending the ceiling framing in accordance with FIG. 139 using suspension mechanism 22, primary framing members 6p and secondary ceiling framing members 6. Provide framing 6 to support the shaping member 1 and the reflector 20. Fix the surface member 7 to the ceiling framing and fix 'clip-in' support member 34 preferably with screw 3. Install shaping member 1 in such a way that the covering flange 4f fits into and fills the rebate in the plasterboard type surface member 7. Standard plasterboard is manufactured with rebated edges on two sides and such a rebated edge should preferably run parallel to the shaping member 1 and butt up against it. Fix the shaping member 1 to the framing member 6 with screws 3a before installing reflector 20 by resting one side of the said reflector on the shaping member 1 before inserting the opposite end of the same reflector into 'clip-in' support 34. Connect electrical gear tray 36 to power supply and fix into position with screws 3b ensuring to sandwich reflector 20 between

the upturn in the same gear tray 36 and the upturned vertical face of the shaping member 1. The gear trays should preferably be positioned so that each light source 13 overlaps the light source 13 of the adjacent gear tray 36 so as to produce a continuous and even glow of light on the reflector 20.

5 The shaping members 1 in accordance with this invention may be butt joined together end to end so that only a fine line is noticeable at the join or the shaping members may alternatively be joined end to end with a lapping member 35 as indicated in FIG. 136.

10 Please note that all shaping members that incorporate electrical devices, the connection of the devices to an appropriate power supply is a necessary part of the installation procedure and may be completed at the discretion of a suitably qualified person such as an electrician.

15 This form of the invention has the advantage that the installation time is less than required for the other forms of the invention that require the application of a settable compound 2 to the junction between the shaping member 1 and the surface member 7 to provide a smooth and even surface between the two members. However an flexible and elastic compound may be used such a mastic type jointing compound commonly available on the market which may be applied preferably between the edge of the coving flange 4f and the surface member 7. This may be achieved with
20 the use of an appropriate tool such as a broad knife, which is run along the coving flange 4f and the surface of the surface member 7. After completion the shaping member, joint and surface member should preferably be suitable for a paint finish. Also preferably adhesive should be applied to the covering flange 4f and the surface member to which it comes in contact with.

25 Preferably adhesive should be used to bond the shaping member 1 and surface member 7 in any form of this invention to ensure good bonding between the two members when appropriate.

30 The shaping member as shown in FIG. 135, in accordance with this invention, is also formed into a reflector 20 which may be made of a flexible material, which may be bent during installation into any suitable radii or shape. This same form of flexible shaping member may be used to join surface members 7 cladding walls to surface members 7 cladding ceilings and the same flexible surface member may be used with fixing flange 4, fixing flange 4p, and fixing flange 4p used in conjunction with clamping flange 4c as well as with coving flange 4f. The same invention may be
35 used as a reflector or as simply a way of forming a junction between two surface members 7 such as between walls and ceilings instead of using traditional cornices. As it is formed into shape during installation it may also be used to form shaped or irregular surfaces in walls and ceilings to any design and appear to be continuous with the surface member 7.

40 This flexible form of this invention may be made of any appropriate material including plastic, PVC, and metal and may also have a patterned or textured surface.

45 The covering flange 4f of this form of the invention may be made of a flexible material allowing ease of installation of the surface member. Also the shaping member 1, including the covering flange 4f may be made of a combination of two materials, preferably a rigid material in combination with a flexible material so that the shaping member may retain its rigidity where necessary and be flexible where desirable.

In any form of the invention it may be desirable to have a rigid body of the shaping member 1 with a flexible covering flange 4f. It will be realized that the shaping

member according to this invention is not restricted to the form illustrated. It may also be incorporated with reinforcing 12 and installed appropriately according to this invention.

5 FIG. 140 shows an example, as a cross sectional representation, of a shaping member in operation according to this invention and shows a means of joining two shaping members 1 when joined using a framing member 6 to secure the two shaping members 1 relative to each other. The shaping members 1 are configured to incorporate the said perforated fixing flange 4p which are abutted along the length of a framing member 6 and secured to it with screws 3 or other appropriate fixing devices. After the same shaping members 1 are secured in position in this way a setting compound is preferably applied to the entire face of the perforated fixing flanges and between the two proud protrusions 5 in order to create a continuous surface between the two shaping members 1. The said settable compound may preferably be sanded to ensure that its exposed surface is smooth and in line with the exposed surface of the two adjoining surface members and may preferably be painted to provide a visually continuous surface. FIG. 141 shows an example, as a cross sectional representation, of a shaping member according to this invention and comprises a shaping member 1 with a perforated fixing flange 4p.

15 FIG. 142 shows an example, as a cross sectional representation, of a shaping member according to this invention designed to be joined with the shaping member of FIG. 141. The said shaping member of FIG. 142 comprises a shaping member 1 with two perforated fixing flanges 4p configured adjacent and parallel to each other and separated by a small gap large enough to accommodate the perforated fixing flange of FIG. 141.

20 FIG. 143 shows the shaping members of FIG. 141 and FIG. 142 in operation, as a cross sectional representation, according to this invention showing a means of joining two shaping members 1. The perforated flange 4p of FIG. 141 is positioned between the two perforated fixing flanges 4p of FIG. 142 and the said perforated fixing flanges 4p may preferably be secured together by means of appropriate adhesive(s) or appropriate fixing devices after which the settable compound 2 may be applied preferably to the entire face of the perforated fixing flange and between the two proud protrusions 5 in order to create a continuous surface between the two shaping members 1. The said settable compound may preferably be sanded to ensure that its exposed surface is smooth and in line with the exposed surface of the two adjoining surface members and may preferably be painted to provide a visually continuous surface. Some or all of the other edges of the same shaping members 1 not joined to another shaping member 1 may be joined to surface members 7 using any of the appropriate methods described herein.

30 35 40 45 As with the connection of all said shaping members 1 with the said settable compound 2 a fine line may be apparent at the edge of the said proud protrusion 5 depending on the way the settable compound was applied and sanded. If such a fine joint line is noticeable and it is preferable that no said fine line is apparent after having been painted, additional settable compound may be applied to the line and sanded after drying. Additional coats of paint may be applied and sanded between coats after drying.

The present invention has been described in this document with reference to particular embodiments only. It will be understood by persons skilled in the art, that numerous variations and modifications can be made to the invention. All such

variations and modifications should be considered to be within the scope of the invention, broadly described within this document.

The claims defining the invention are as follows:

1. A shaping member comprising a fixing flange that is designed to be secured to the rear face and the edge of a surface member, including plasterboard, fibre cement and building board type members, in such a way that the exposed face of the shaping member protrudes slightly proud of the exposed face of the same surface member in such a way as to facilitate the application of a settable filler material (otherwise known as settable compound) so that the joint between the same shaping member and the same surface member is continuous and preferably suitable for the application of a paint finish and the shape so formed by this method may be utilised for various utilitarian or decorative applications.
2. A shaping member comprising a fixing flange that is designed to be secured to the rear face of a surface member, including plasterboard, fibre cement, fibre board, medium density fibre board and building board type members, in such a way that the exposed face of the shaping member protrudes slightly proud of the exposed face of the same surface member in such a way as to facilitate the application of a settable filler material (otherwise known as settable compound) so that the joint between the same shaping member and the same surface member is continuous and preferably suitable for the application of a paint finish and the shape so formed by this method may be utilised to form corners in the same surface member.
3. A shaping member comprising a perforated fixing flange along its outer edge that is designed to be secured to the exposed face of a surface member including plasterboard, fibre cement and cement render in such a way that the exposed face of the shaping member protrudes slightly proud of the same perforated edge fixed to the face of the same surface member in such a way as to facilitate the application of a settable filler material (otherwise known as settable compound) so that the joint between the same shaping member and the same surface member is continuous and preferably suitable for the application of a paint finish and the shape so formed by this method may be utilised for various utilitarian or decorative applications.
4. A shaping member designed to form light fitting reflector comprising a perforated fixing flange along its outer edge that is designed to be secured to the exposed face of a surface member including plasterboard, fibre cement and cement render in such a way that the exposed face of the shaping member protrudes slightly proud of the same perforated edge fixed to the face of the same surface member in such a way as to facilitate the application of a settable filler material (otherwise known as settable compound) so that the joint between the same shaping member and the same surface member is continuous and preferably suitable for the application of a paint finish and the shape so formed by this method may be utilised for various utilitarian or decorative applications.
5. A shaping member designed to form light fitting reflector comprising a fixing flange that is designed to be secured to the rear face of a surface member, including plasterboard, fibre cement and building board type members, in such a way that the exposed face of the shaping member protrudes slightly proud of the exposed face of the same surface member in such a way as to facilitate the application of a settable filler material (otherwise known as settable compound) so that the joint between the same shaping member and the same surface member is

continuous and preferably suitable for the application of a paint finish and the shape so formed by this method may be utilised for various utilitarian or decorative applications.

6. The shaping member designed to form light fitting reflector of claim 4 and 5 wherein a light diffuser is incorporated and positioned flush with the wall or ceiling lining connected to the same shaping member, which is formed with a step parallel to the diffuser and extending outward from the diffuser approximately in line with the edge of the diffuser and on two opposite sides of the diffuser thereby allowing a diffuser with a stepped siding to rest on the step in the shaping member on the two opposites sides.
7. The shaping member designed to form light fitting reflector of claim 4 and 5 wherein a light diffuser is incorporated and positioned flush with the wall or ceiling lining and held in position with a spring metal clip, a clear plastic clip or any other type of clip.
8. The shaping member designed to form light fitting reflector of claim 4 and 5 wherein a light diffuser is incorporated and positioned flush with the wall or ceiling lining and held in position with a magnet attached to it.
9. The shaping member designed to form light fitting reflector of claim 4 and 5 wherein a light diffuser is incorporated and positioned so as to be recessed into the wall or ceiling lining connected to the same shaping member, which is formed with a step parallel to the diffuser and extending outward from the diffuser, approximately in line with the edge of the diffuser and on two opposite sides of the diffuser thereby allowing a diffuser with a stepped siding to rest on the step in the reflector on the two opposites sides.
10. The shaping member designed to form light fitting reflector of claim 4 and 5 wherein a light diffuser is incorporated and positioned so as to be recessed into the wall or ceiling lining and held in position with a spring metal clip, a clear plastic clip or any other type of clip.
11. The shaping member designed to form light fitting reflector of claim 4 and 5 wherein a light diffuser is incorporated and positioned so as to be recessed into the wall or ceiling lining and held in position with a magnet attached to it.
12. The shaping member designed to form light fitting reflector of claim 4 and 5 wherein a light diffuser is incorporated and positioned so as to protrude proud of the wall or ceiling lining connected to the same reflector, which is formed with a step parallel to the diffuser and extending outward from the diffuser approximately in line with the edge of the diffuser on two opposite sides of the diffuser thereby allowing a diffuser with a stepped siding to rest on the step in the reflector on the two opposites sides.
13. The shaping member designed to form light fitting reflector of claim 4 and 5 wherein a light diffuser is incorporated and positioned so as to protrude proud of the wall or ceiling lining and connected to the same reflector which is held in position with a spring metal clip, a clear plastic clip or any other type of clip.
14. The shaping member designed to form light fitting reflector of claim 4 and 5 wherein a light diffuser is incorporated and positioned so as to protrude proud of the wall or ceiling lining and connected to the same reflector, which is held in position with a magnet attached to it.
15. The shaping member of claims 1 and 3, which may include any one of the claims of 4 to 14 wherein the said shaping member is so large that it requires the

use of a slip joint to accommodate differential movement between to part(s) of the shaping member connected to the ceiling and the main body of the device.

16. The shaping member designed to form light fitting reflector or other device of any one of the claims of 1 to 15 wherein the electric control equipment is wholly or substantially contained within the shaping member and penetrations are incorporated in the same shaping member for use with suspension rods, support clips, cable entries etc.
17. The shaping member designed to form light fitting reflector of any one of the claims of 1 to 15 wherein the electric control equipment is wholly or substantially contained outside the shaping member and penetrations are incorporated in the same shaping member for use with suspension rods, support clips, etc. and to support lamps, additional reflector(s) etc.
18. A shaping member of claims 1 and 3 so designed to form a light fitting housing and configured so as to allow it to be continuously joined with a standard architectural wall or ceiling lining or covering including plasterboard, cement render and fibre cement.
19. The light fitting housing of claim 18 wherein a light diffuser is incorporated.
20. A shaping member that shapes surface members such as ceiling or wall linings, including plasterboard, cement render and fibre cement, to facilitate utilitarian and/or decorative functions, fabricated with a perforated strip along its outer edge so as to allow it to be continuously joined with the same surface members.
21. A shaping member designed to form a light fitting housing of claim 19 shaped in such a way as form a perceived opening in the surface member with a flange to its perimeter and in line with the planar face of the surface member, behind which a concave diffuser may be located and entirely housed by the same shaping member along with the lamp(s) and electrical gear so configured to allow the entire exposed face of the diffuser to be illuminated while being positioned, at its edges, in line with the planar face of the surface member.
22. A shaping member of any one of the claims 1 to 22 wherein any potential differential movement caused by different rates of thermal expansion and contraction of the said surface member relative to the said shaping member is constrained due to the method and means of fixing the same shaping member to the same surface member including the use of adhesives and/or fixing devices such as toggle devices and; fixing devices that are capable of being made to exert force on both sides of the said surface member whilst clamping the shaping member into place; screws that penetrate the said perforated edge as well as the said surface member and also penetrate a flange, clip, flap, bracket or other device attached to the shaping member; or a combination of the fixing methods mentioned in this claim and thus preventing any cracking of the said filler material.
23. A shaping member of any one of the claims 1 to 22 that is designed to be used with a building board type surface member, such as plasterboard, fibre cement sheeting, fibre board and the like; the same shaping member having a length and/or width which is larger than the required distance between the framing members supporting the same surface member; the same shaping member having the means of being suspended from or otherwise supported by other structural members; the same shaping member incorporating a flange mounted parallel with the said perforated edge and a distance away from the same perforated edge approximately equal to the thickness of the said surface member, so configured as

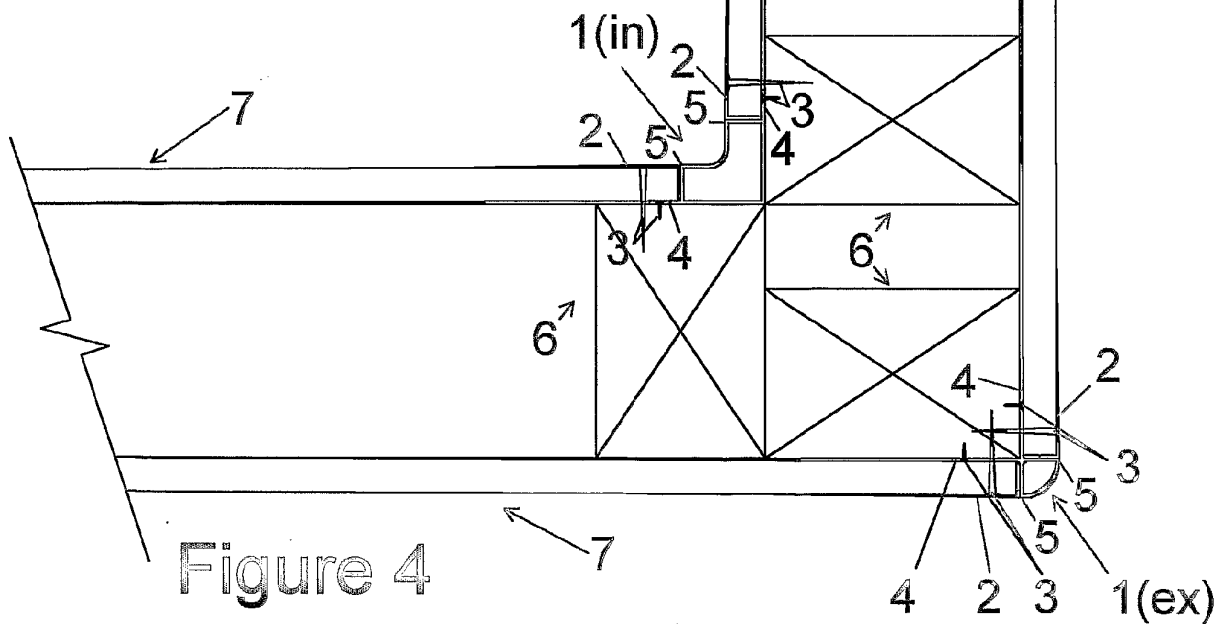
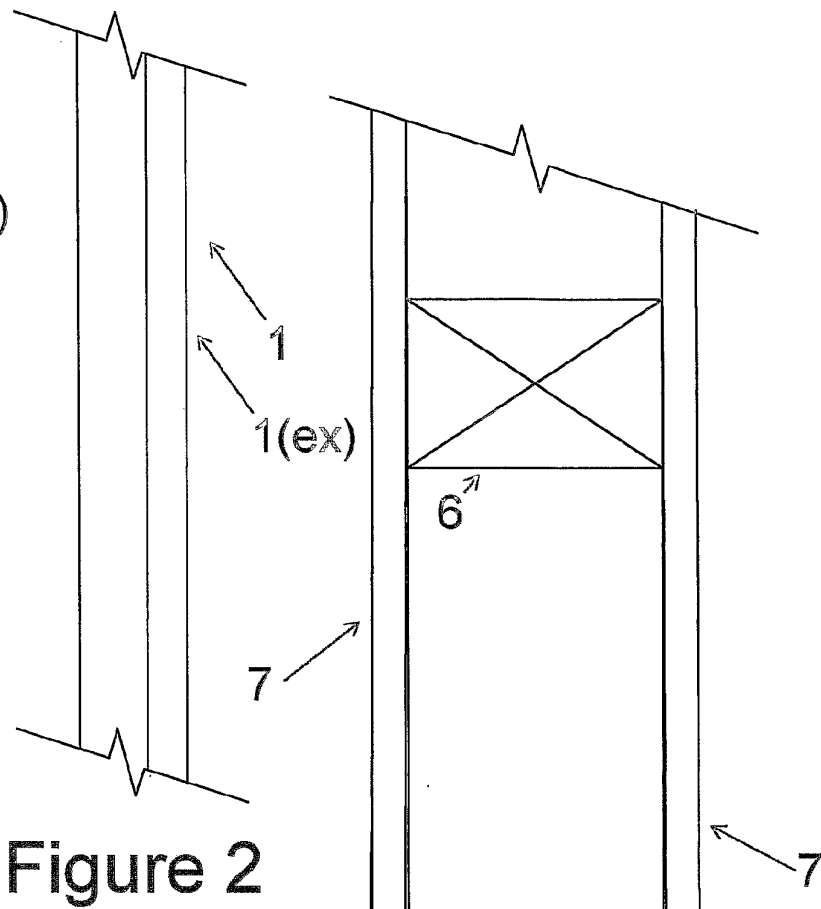
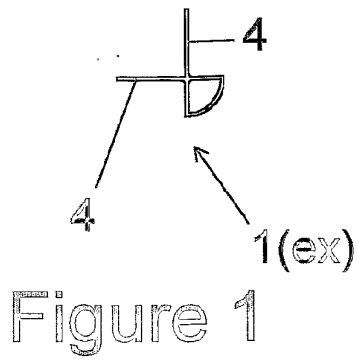
- to allow the said surface member to be inserted into the gap between the same perforated edge and the same flange, thus allowing the same surface member to be penetrated with screws or other fixing devices, along the strip of the same surface member that is inserted between the same flange and the same perforated edge, in such a way that the same screws or fixing devices penetrate both the perforated edge and the flange and therefore compress the surface member at and around the points of penetration; the same shaping member thus becoming, by virtue of its shape, material and said fixing method, a structural support system for the said surface member as well as a means and method of constraining differential movement caused by such effects as thermal expansion and contraction between the same surface member and the same shaping member.
- 5 24. A shaping member of any one of the claims 1 to 22 which include a perforated edge strip wherein the same perforated edge strip may also be segmented, castellated or the like.
- 10 25. A shaping member of claims 1 and 3 that may be used to form junctions between surface members positioned in differing orientations and/or junctions between surface members of varying shapes and/or junctions between surface members of different materials. This present invention is not limited to architectural applications.
- 15 26. A shaping member of claims 1 and 3 that is flexible and capable of being bent, shaped or otherwise formed during the installation process and may be used to form junctions between surface members positioned in differing orientations and/or junctions between surface members of varying shapes and/or junctions between surface members of different materials. This present invention is not limited to architectural applications.
- 20 27. A shaping member of claims 1 and 3 that may be used to form junctions between surface members positioned in the same planar orientation. This present invention is not limited to architectural applications.
- 25 28. A shaping member of claim 1 that may be used to form a recessed step in surface members normally at the junction with another surface member of a different orientation to the first said surface member in which the said recessed step forms the appearance of a gap between the two same surface members and thus forming a so called shadow line. This present invention is not limited to architectural applications.
- 30 29. A shaping member of claim 1 that may be used to form a recessed step in a surface members normally at the junction with another surface member of the same orientation to the first said surface member in which the said recessed step forms the appearance of a gap between the two same surface members and thus forming a so called control joint to allow for differential movement.
- 35 This present invention is not limited to architectural applications.
- 40 30. A shaping member comprising a fixing cleats, tabs, extensions or the like (instead of the said fixing flange) that is designed to be secured to the rear face of a surface member, including plasterboard, fibre cement, fibre board and other building board type members, in such a way that the exposed face of the shaping member protrudes slightly proud of the exposed face of the same surface member in such a way as to facilitate the application of a settable filler material (otherwise known as settable compound) so that the joint between the same shaping member and the same surface member is continuous and preferably suitable for the
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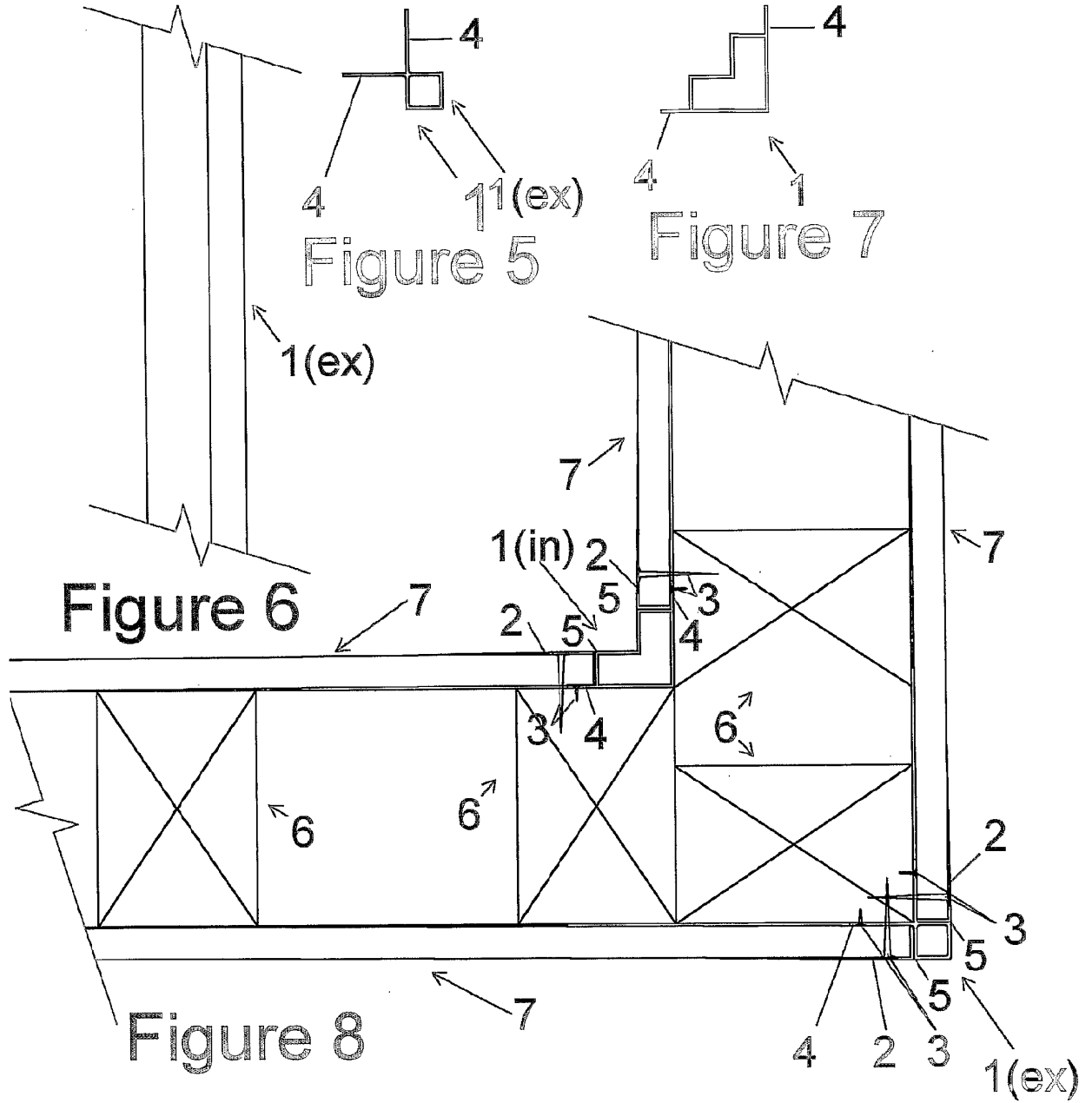
application of a paint finish and the shape so formed by this method may be utilised for various utilitarian or decorative applications.

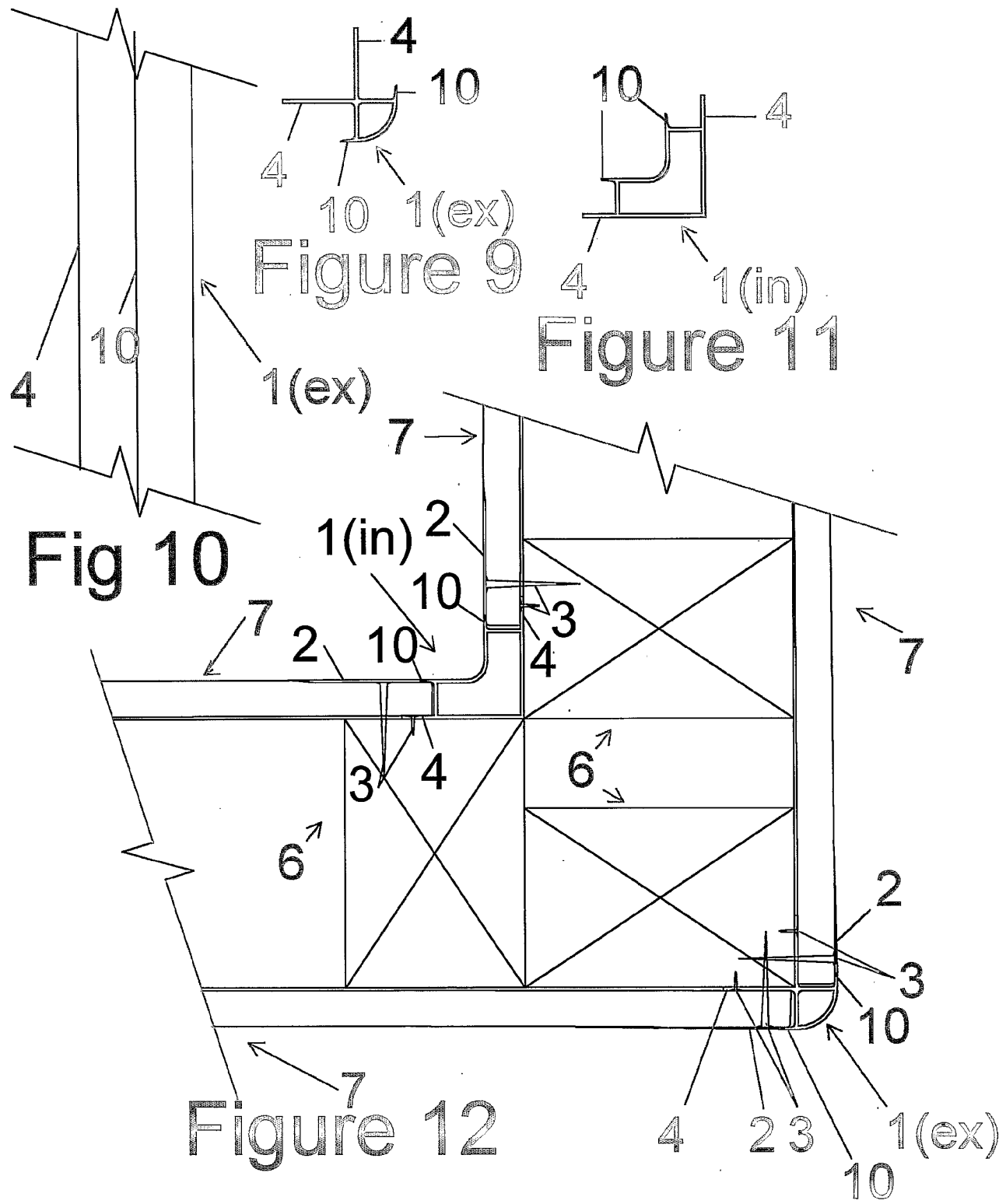
31. A shaping member of claim 1 that is small enough to be installed after the installation of the said surface member, whereby the installation process includes the cutting of a penetration in the said surface member of an appropriate size and shape into which the shaping member may be inserted before being positioned into place ready for installation whereby the same shaping member incorporates said fixing flanges which are not continuous around the perimeter of the said shaping member in order to facilitate the insertion of the same shaping member into the said penetration in the surface member after which it is positioned so that the fixing flanges are in contact with the rear face of the same surface member.
32. A shaping member of claim 1 that is small enough to be installed after the installation of the said surface member, whereby the installation process includes the cutting of a penetration in the said surface member of an appropriate size and shape into which the said shaping member may be inserted before being positioned into place ready for installation whereby the same penetration incorporates incisions normally the approximate width and length of the fixing flanges and normally on either side of the said penetration and positioned in order to facilitate the insertion of the same shaping member into the said penetration after which it is positioned so that the fixing flanges are in contact with the rear face of the same surface member.
33. A shaping member of claims 1 and 3 that is formed into a door frame, comprising suitable rebates to act as door jambs, and normally seen to be continuous with the wall lining.
34. A shaping member of claims 1 and 3 that is formed into a fenestration of any kind including windows, hatches and the like, and normally seen to be continuous with the wall lining.
35. A shaping member of claim 1 that is formed into an aperture of any kind in the said surface member and may have an orthogonal or curvilinear profile.
36. A shaping member of claim 1 that is formed into an aperture and configured so as support a light fitting or other device and/or decorative element.
37. A shaping member of claims 1 and 3 that is formed into an opening in a ceiling and configured so as to support a light source or other device or element in such a way as to allow the same light source or other device or element it to be lifted up into the space above the same ceiling and thus act as a means of access into the same ceiling space provided that the opening so formed is large enough to allow for the passage of a person, creature or device.
38. A shaping member of claim 1 comprising an additional flange which forms an extension to the edge of the said proud protrusion in such a way as to allow the surface member to be wedged between it and the said fixing flange.
39. A shaping member of claim 1 comprising an additional bendable flange which forms an extension to the edge of the said proud protrusion in such a way as to allow the surface member to be wedged between it and the said fixing flange and also configured such that the same flange may be bent in order to grip the same surface member; the settable compound may preferably be applied after the bendable flange is bent into position to securely grip the surface member and should preferably be applied between the bend in the bendable flange and the surface of the said surface member.

40. A shaping member of claim 39 comprising perforations, incisions, patterns or the like along the length of the said bendable flange and configured in order to augment the bond between the settable compound and the shaping member and prevent or minimize any visible differential movement between the two materials.
- 5 41. A shaping member of claim 39, 38 or 1 comprising perforations, incisions, patterns or the like situated along the length of the webbing member which abuts and is normally somewhat parallel to the edge of the surface member and configured in order to augment the bond between the adhesive or settable compound and the shaping member and prevent or minimize any visible differential movement between the two materials and the surface member.
- 10 42. A shaping member of claims 1 and 3 that is used to form shapes into materials such as medium density fibre board or other types of board or sheets used for joinery work, furniture making, building, and manufacturing of any kind.
- 15 43. A shaping member of claim 1 and 3 comprising a duct, conduit, pipe, passage or the like which is no thicker than the shaping member and so configured that it may be joined with the same surface member on the two longer sides of the same shaping member so that the exposed face of the present invention is flush and continuous with the exposed face of the surface member and also this present form of the invention should be configured so that it may be joined end to end in such a way as to form a continuous duct, pipe or passage and thus allow the passage of cables, rods, fluids, gases or any appropriate material or device.
- 20 44. A shaping member of claim 1 and 3 comprising a duct, conduit, pipe, passage or the like, which is so configured that it may be joined with the same surface member on the two longer sides of the same shaping member so that the exposed face of the invention is flush and continuous with the exposed face of the surface member and also this present form of the invention should be configured so that it may be joined end to end in such a way as to form a continuous duct, pipe or passage and thus allow the passage of cables, rods, fluids, gases or any appropriate material or device.
- 25 45. A shaping member of claim 1 and 3 comprising a duct, conduit, pipe, passage or the like which is so configured that it may be joined with the same surface member on the two longer sides of the same shaping member so that the exposed face of the invention forms a concave or convex shape relative to and continuous with the exposed face of the surface member and also this present form of the invention should be configured so that it may be joined end to end in such a way as to form a continuous duct, pipe or passage and thus allow the passage of cables, rods, fluids, gases or any appropriate material or device.
- 30 46. A shaping member of claim 1 and 3 comprising a means of joining with other shaping members so as to make the joint between the two said shaping members imperceptible or not very apparent apart from a fine line at the edge of the said proud protrusions and utilising the said perforated fixing flange which is fixed to a framing member and adjacent and abutted to the perforated fixing flange of the shaping member to which it is to be joined, the said perforated fixing flanges being securely fixed to the said framing member by means of screws or other devices and covered entirely with settable compound between the adjacent proud protrusions formed along the edge of the perforated fixing flanges and preferably sanded to a smooth finish flush with the same shaping members, suitable for a paint finish.
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47. A shaping member of claim 1 and 3 comprising a means of joining with other shaping members so as to make the joint between the two said shaping members imperceptible or not very apparent apart from a fine line at the edge of the said proud protrusions and utilising the said perforated fixing flange which is inserted between two perforated parallel and adjacent fixing flanges of the shaping member to which it is to be joined, the said perforated fixing flanges being securely fixed to each other the by means of adhesive(s) and/or other devices and covered entirely with settable compound between the adjacent proud protrusions formed along the edge of the perforated fixing flanges and preferably sanded to a smooth finish flush with the same shaping members, suitable for a paint finish.
48. A shaping member of claim 1 and 3 comprising a means of forming a vent, air conditioning register, or the like in a wall or ceiling lining of architectural and other interiors; the wall or ceiling lining so shaped by the present invention so as to facilitate the desired movement of air flowing through the same device.
49. A shaping member of claim 1 and 3 whereby two lengths of the same shaping member utilised in lengths that are too long to be manufactured and/or transported and/or installed in a practical manner and therefore may preferably be joined end to end during the installation process with the use of locating members, devices or the like which ensure that the two same shaping members are kept in alignment with each other and the butt joint so formed may preferably be covered with the said settable compound and finished flush with the same surface members, preferably in such a way as to be suitable for a paint finish.
50. A shaping member of claim 2 whereby two lengths of the same shaping member utilised to form corners in wall or ceiling linings may be joined end to end with the use of locating members, devices or the like which ensure that the two same shaping members are kept in alignment with each other and the butt joint so formed may preferably be covered with the said settable compound and finished flush with the same shaping members, preferably in such a way as to be suitable for a paint finish.
51. A shaping member of claim 1 and 3 configured to form a shaped junction between two surface members of varying materials and thereby contain within its fabric the stresses and strains caused by any differential movement between to two said surface members and thereby prevent visible cracking between any of the said members.
52. A shaping member of claim 1 and 2 so formed to include a reinforcing material (such as paper) which preferably covers the face of the same shaping member exposed to view upon installation and extend over the face of the said surface member about and along its junction with the said shaping member and embedded into the said settable compound so as to form a smooth and continuous surface between the two said members.
53. A shaping member and surface member supporting system, substantially as herein described with reference to the accompanying drawings.







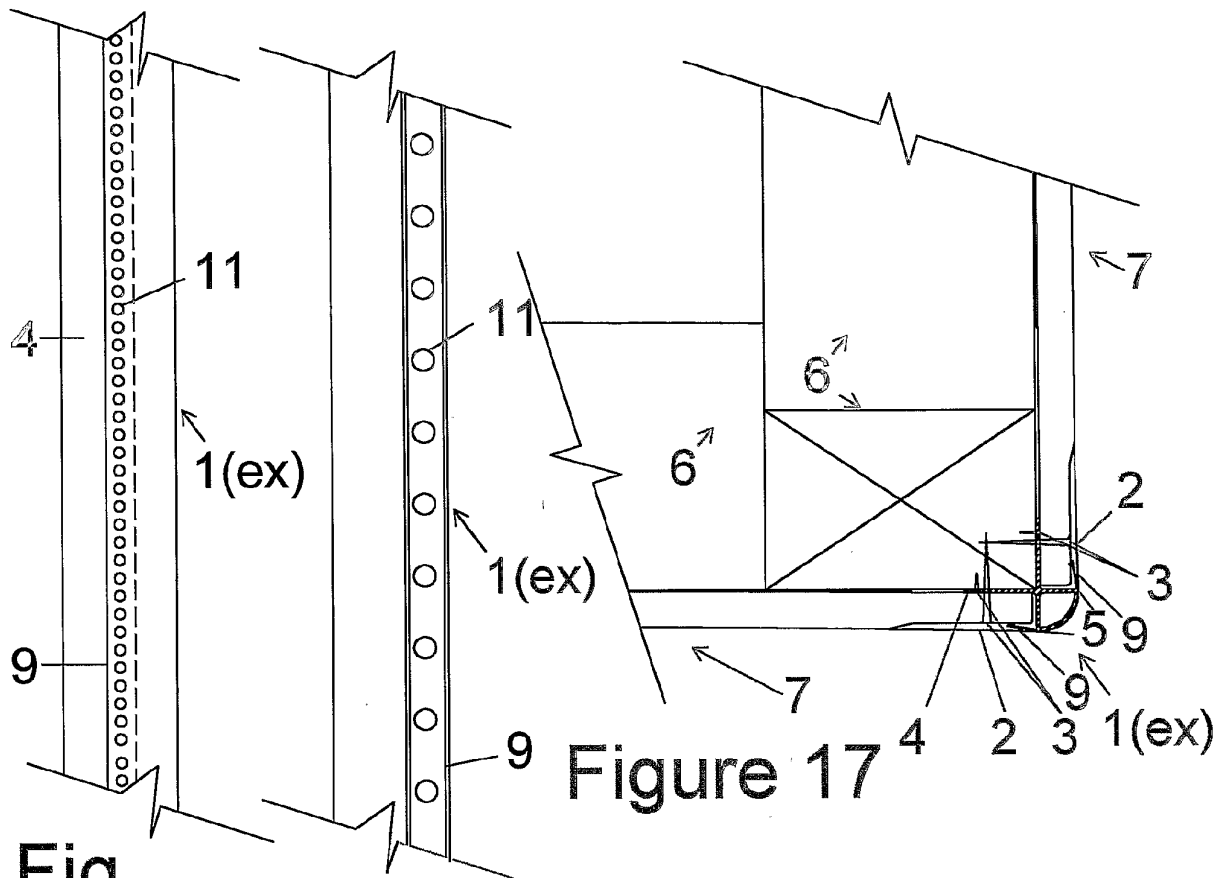


Fig 16

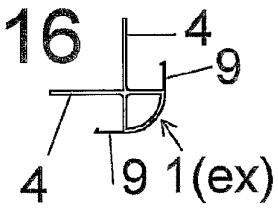


Fig 15

Figure 14

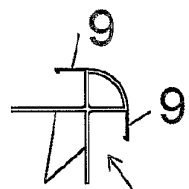


Figure 13

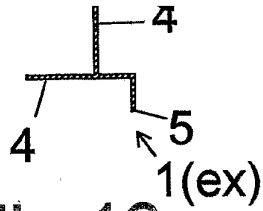


Fig 18

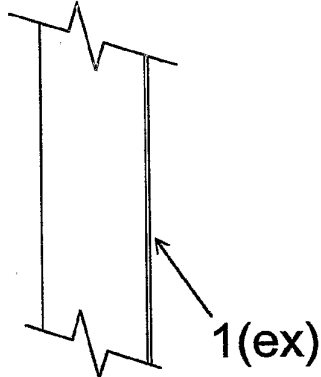


Fig 19

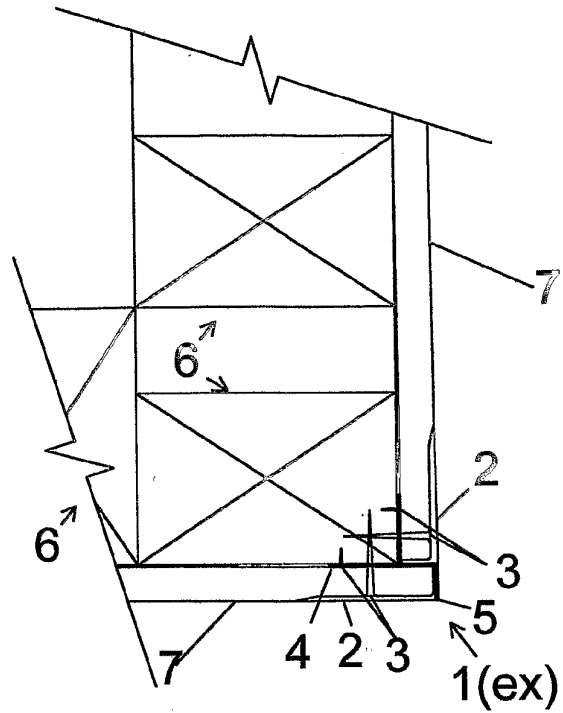


Fig 20

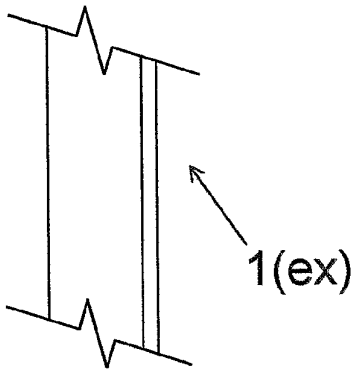


Figure 22

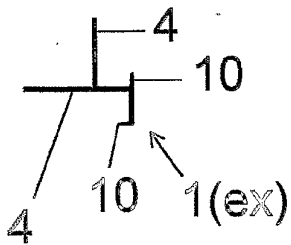


Figure 21

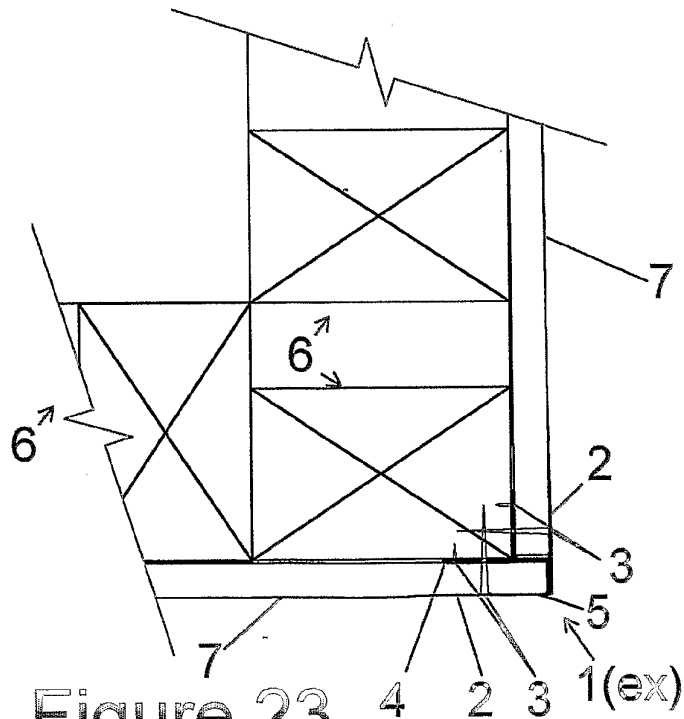


Figure 23

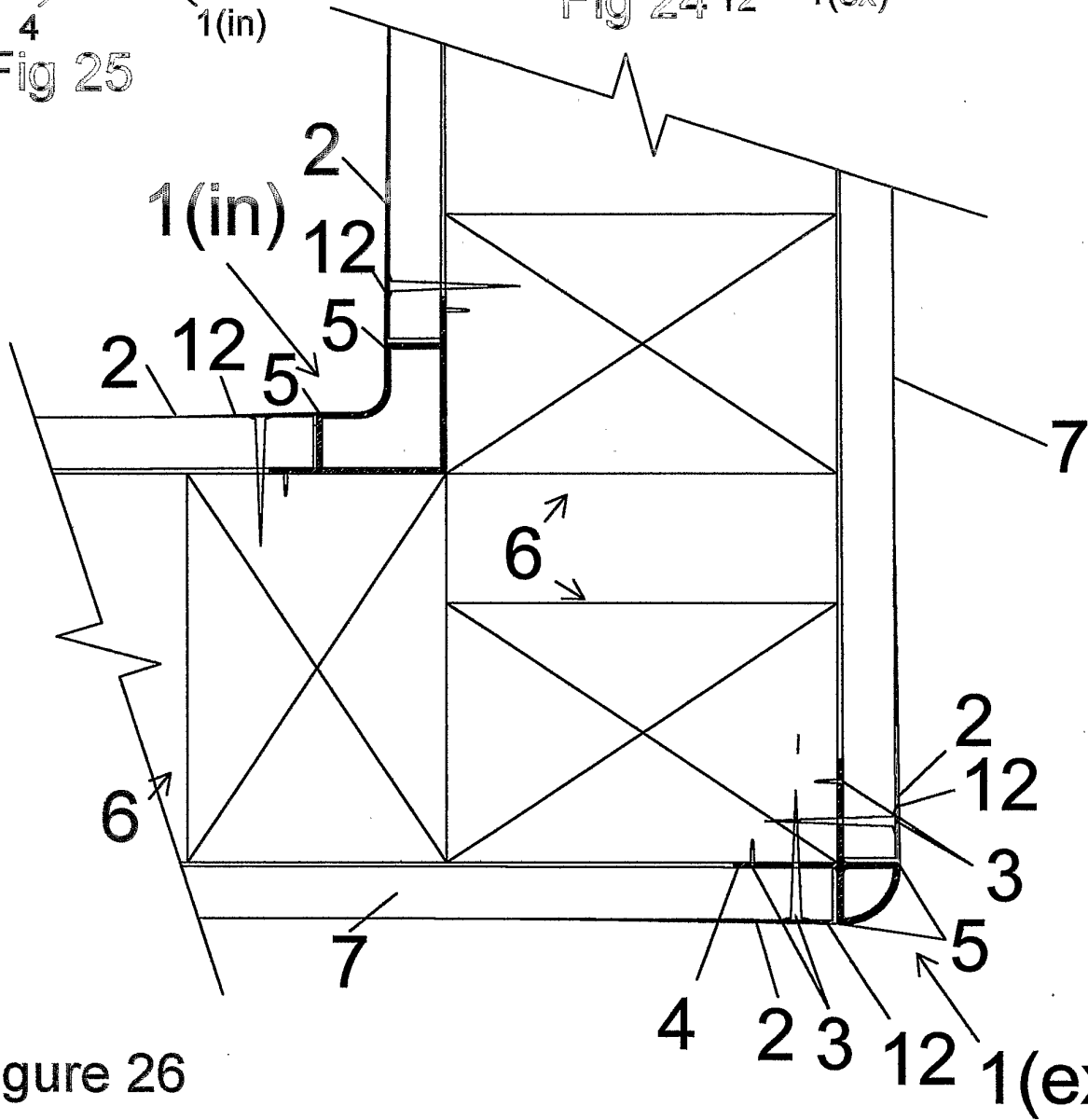
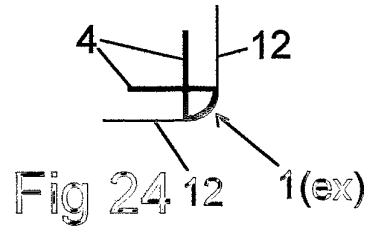
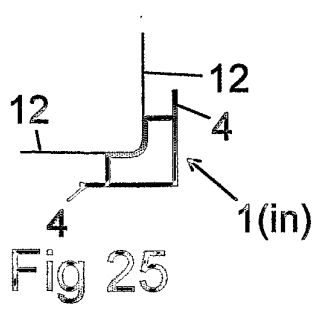


Figure 26

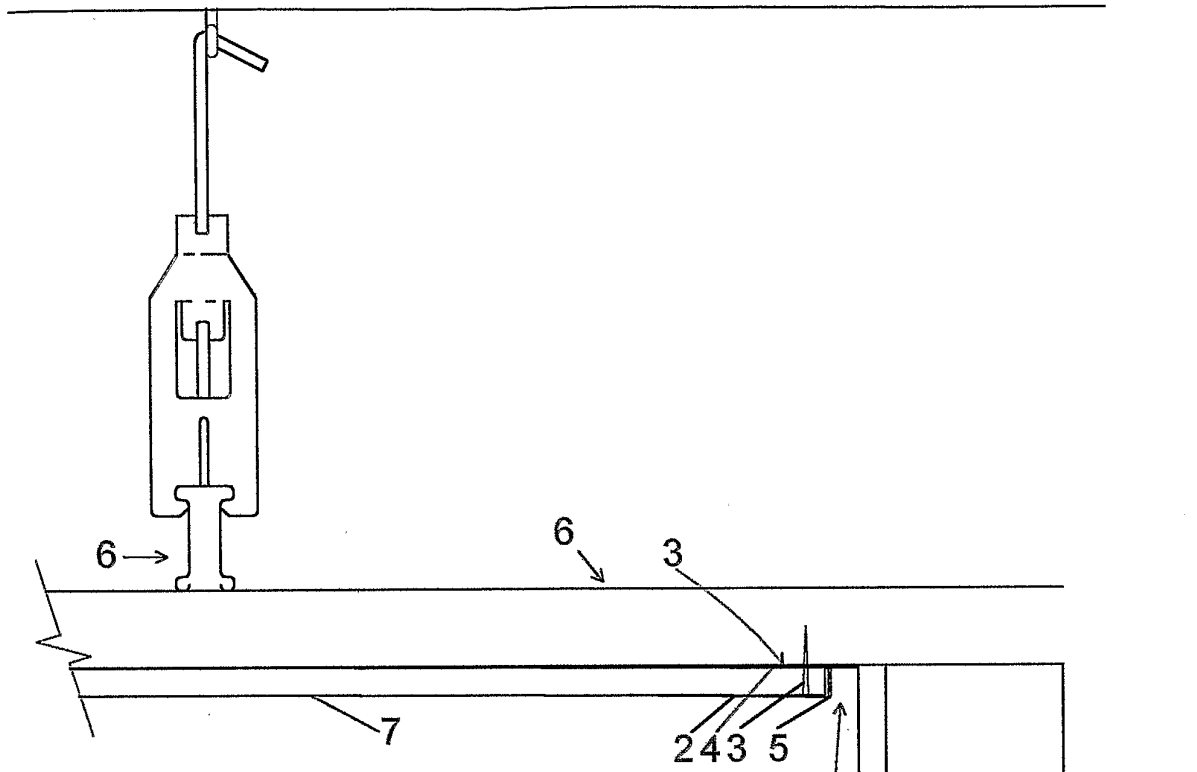


Figure 28

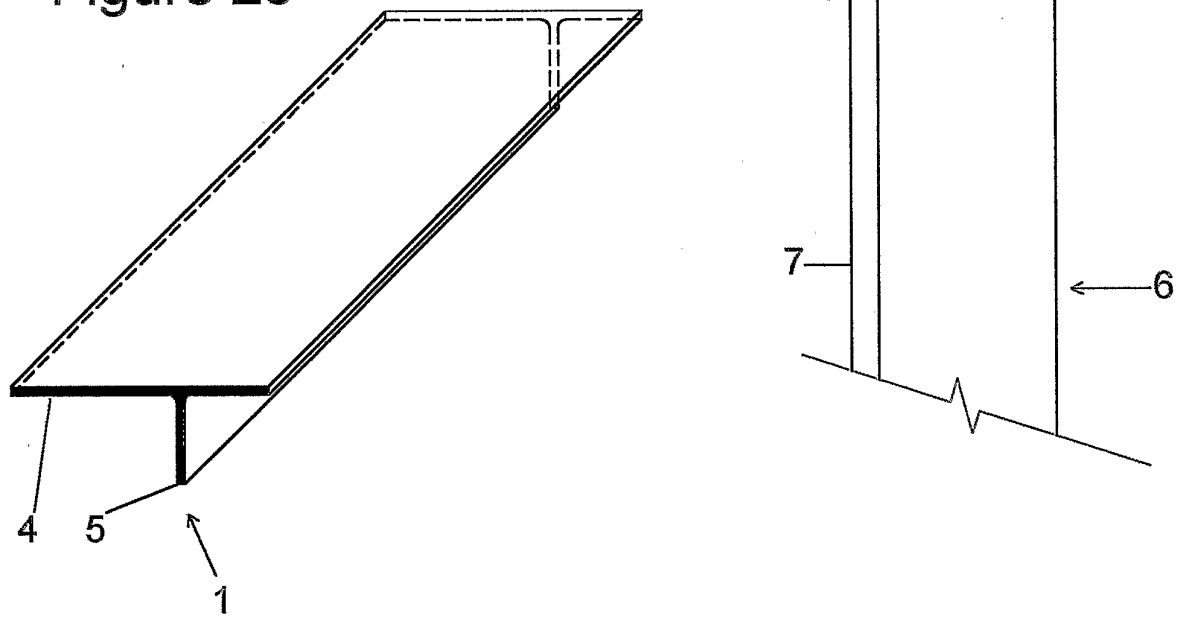


Figure 27

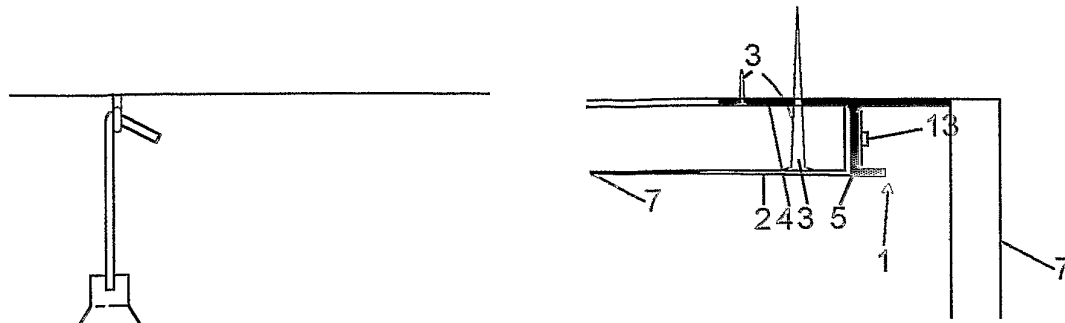


Figure 30

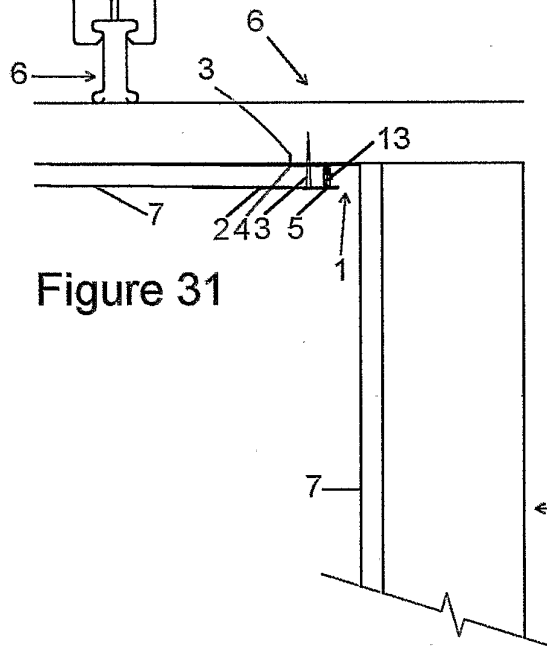


Figure 31

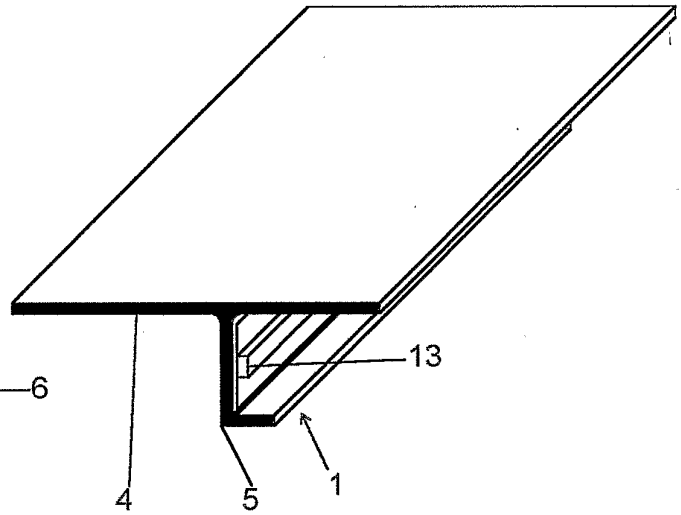


Figure 29

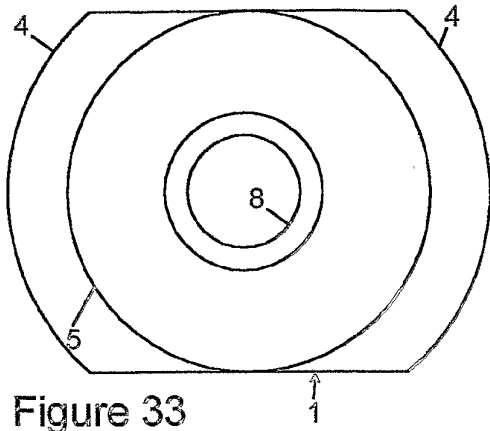


Figure 33

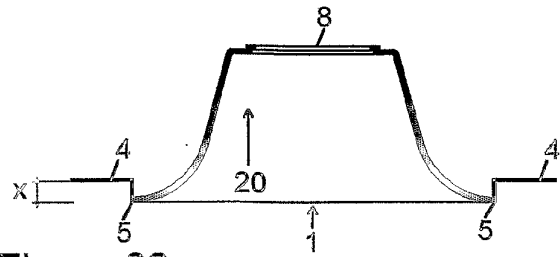


Figure 32

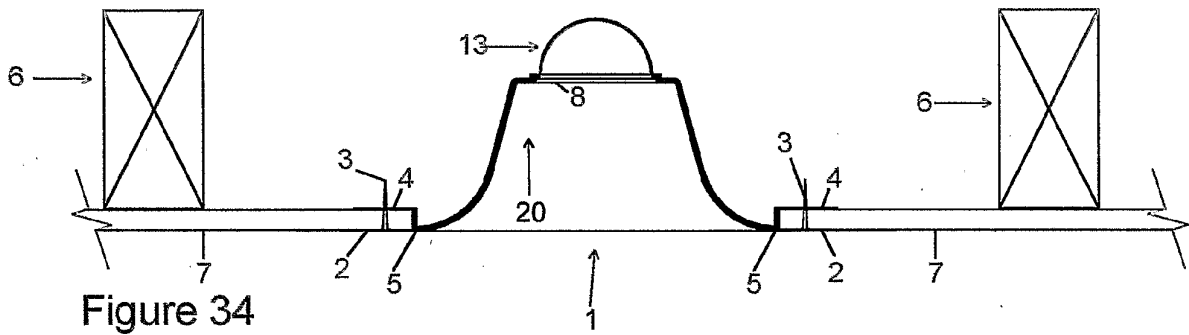


Figure 34

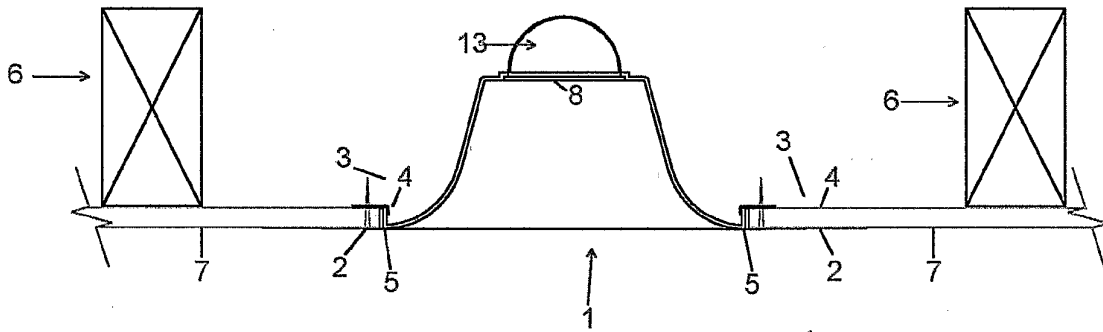


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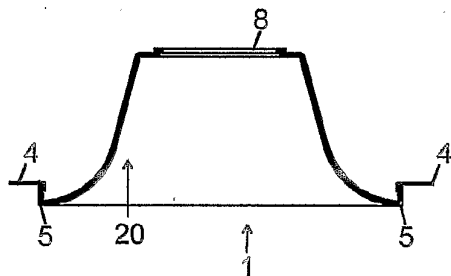


Figure 35

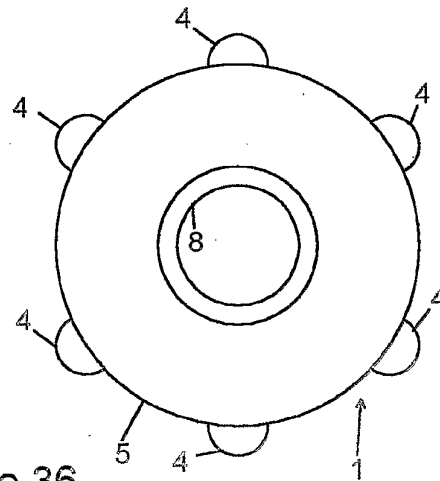


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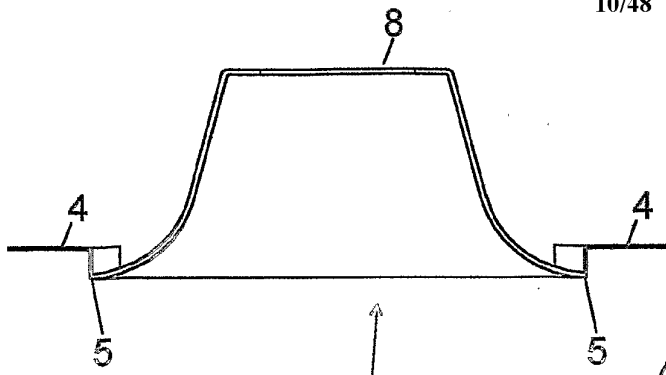


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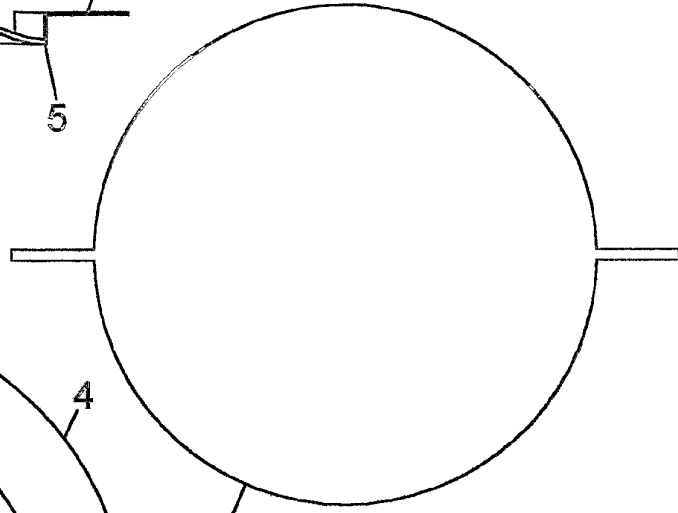


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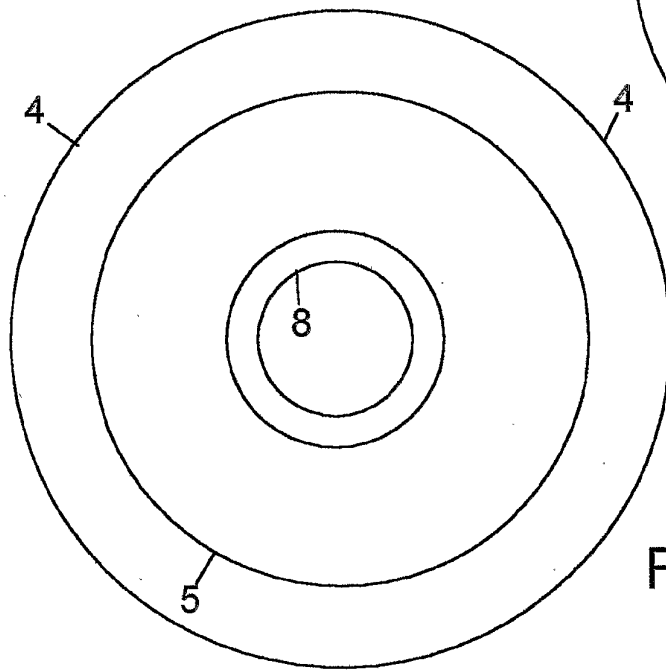


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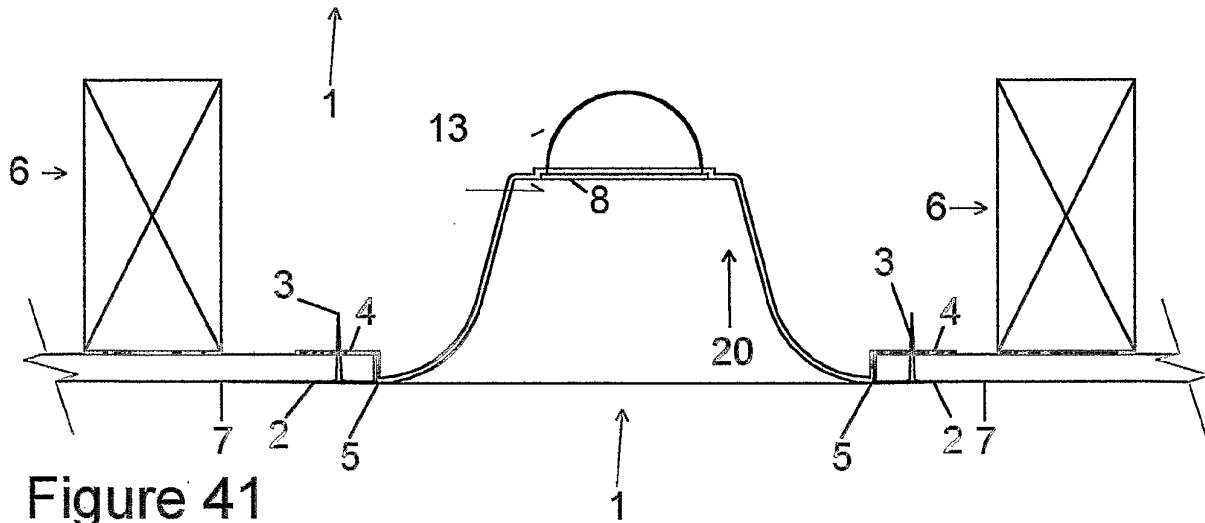
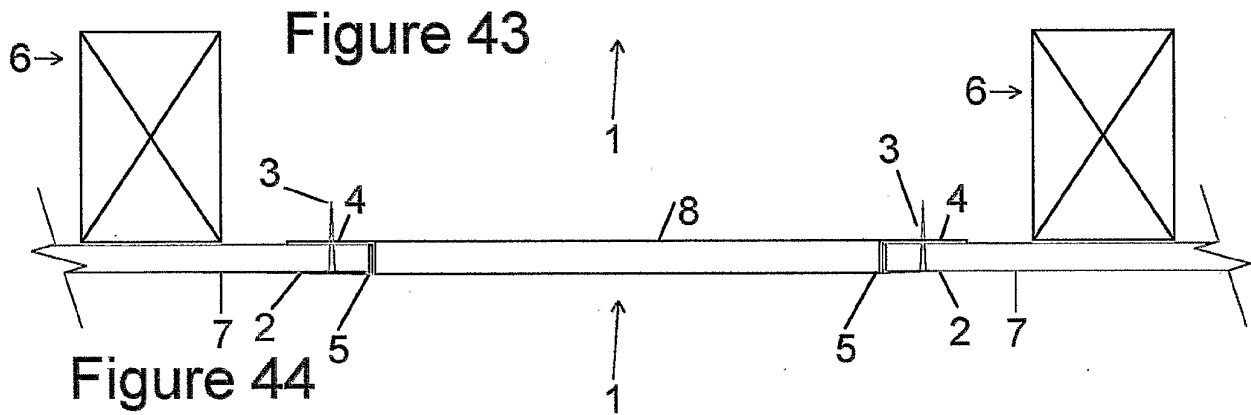
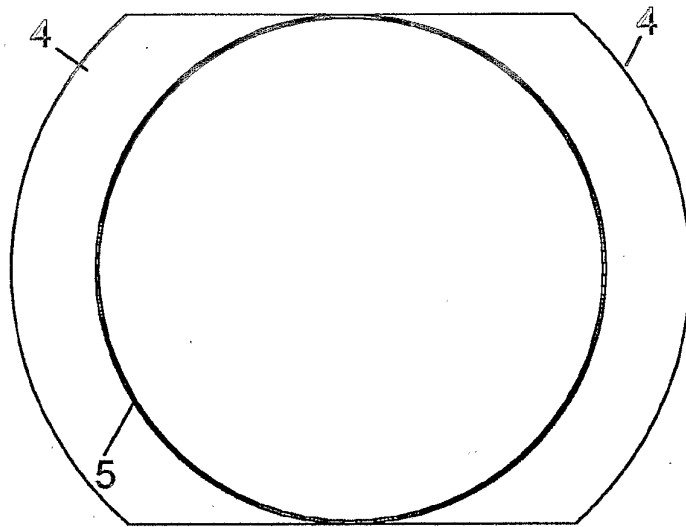
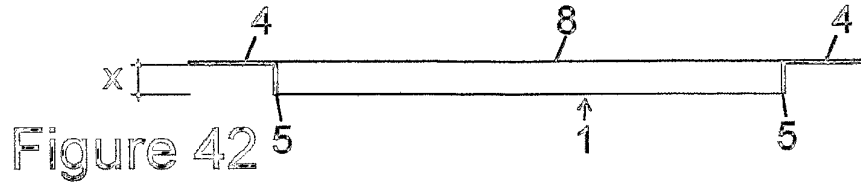


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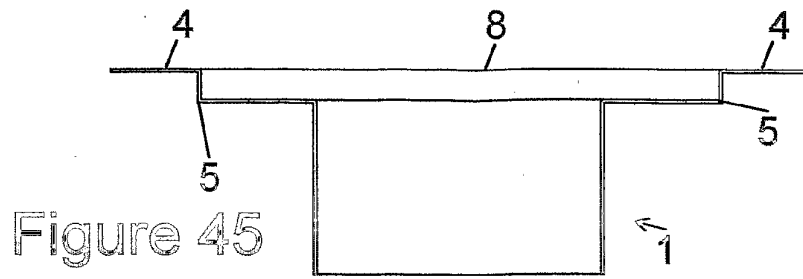


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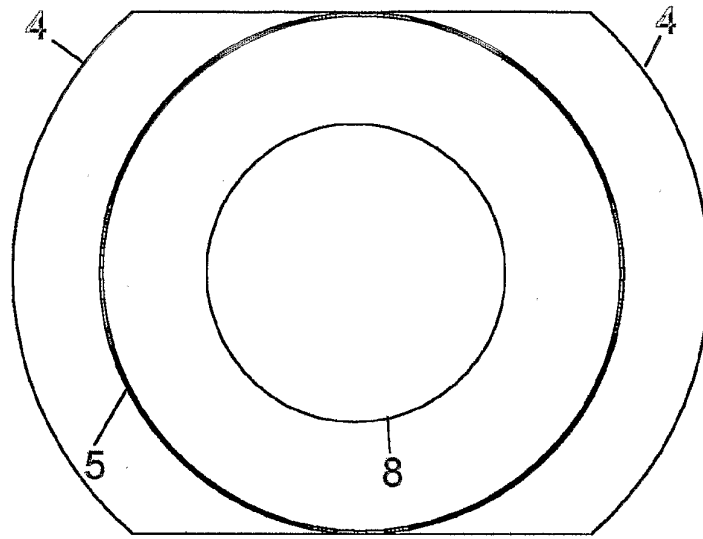


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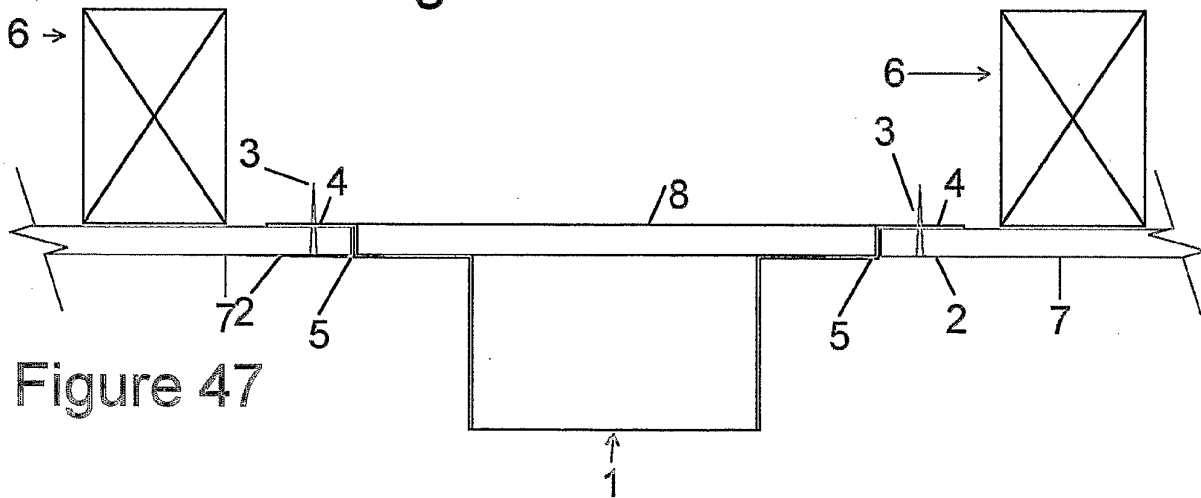


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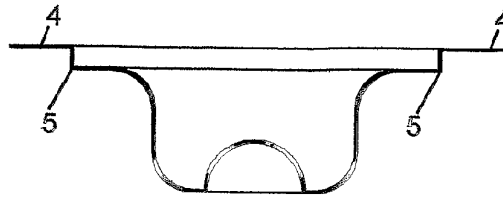


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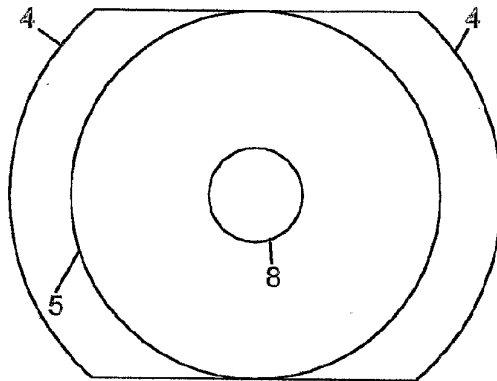


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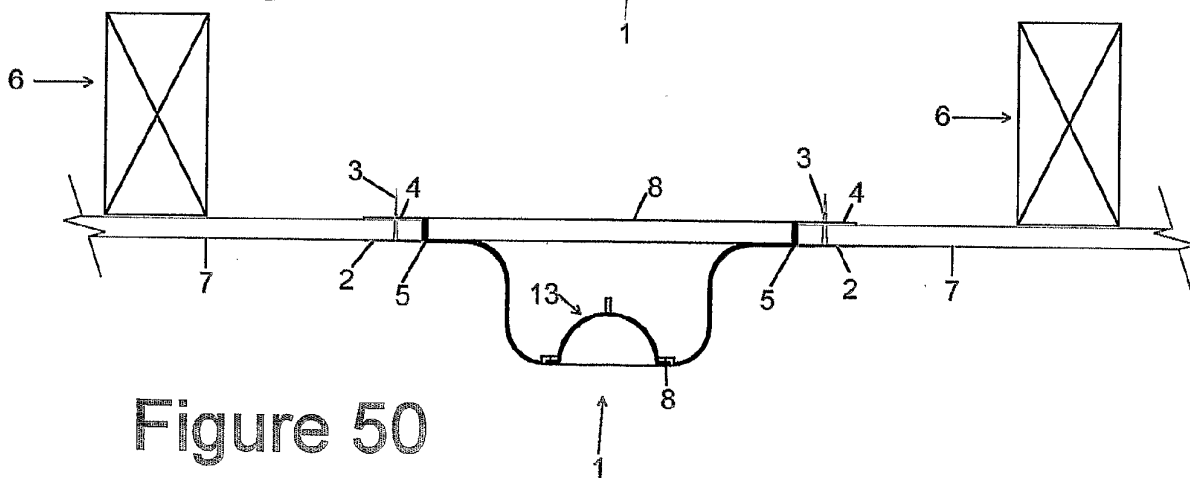


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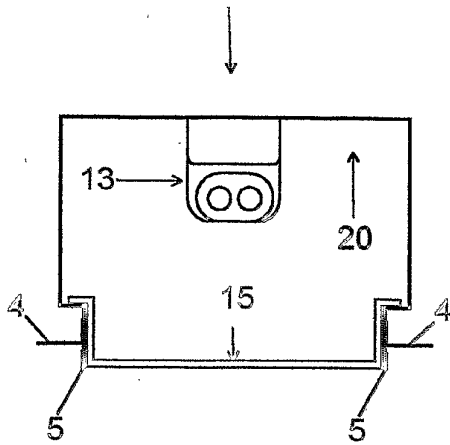


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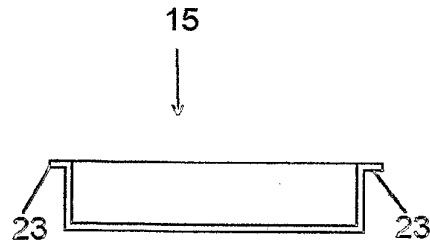


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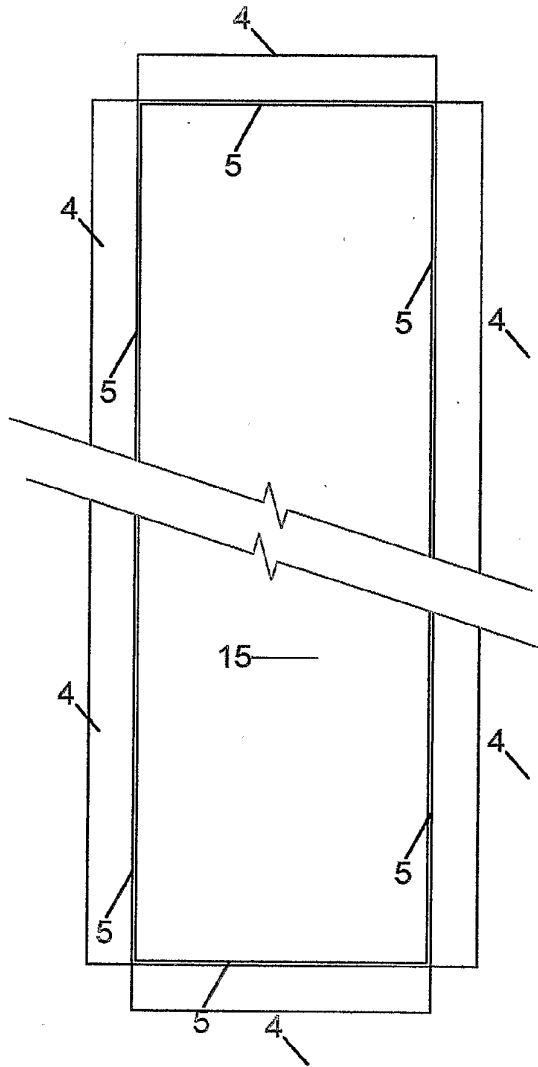


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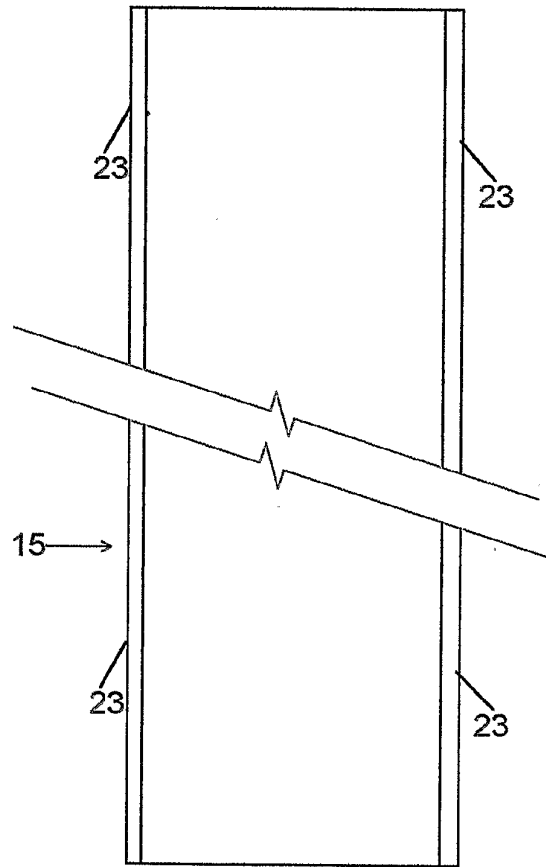


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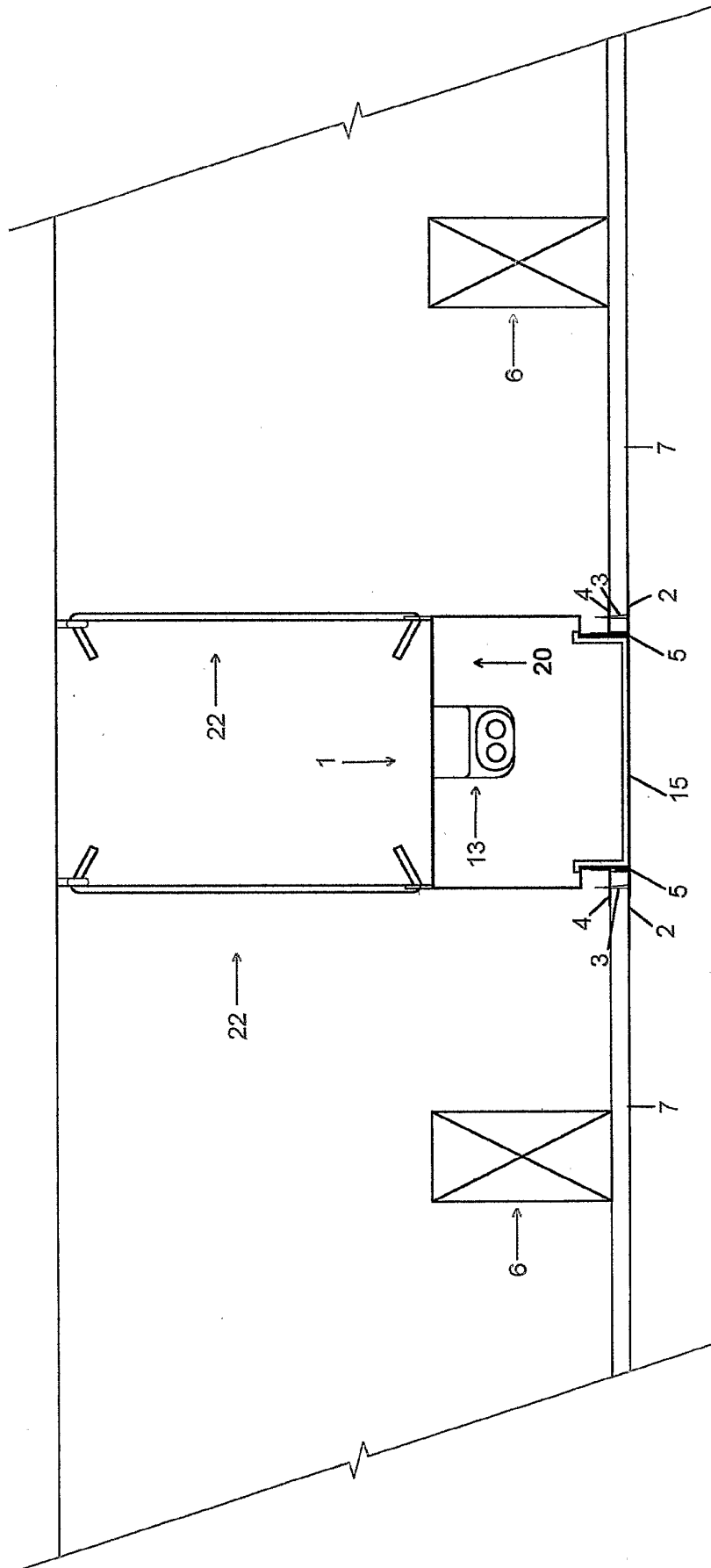


Figure 55

Figure 57

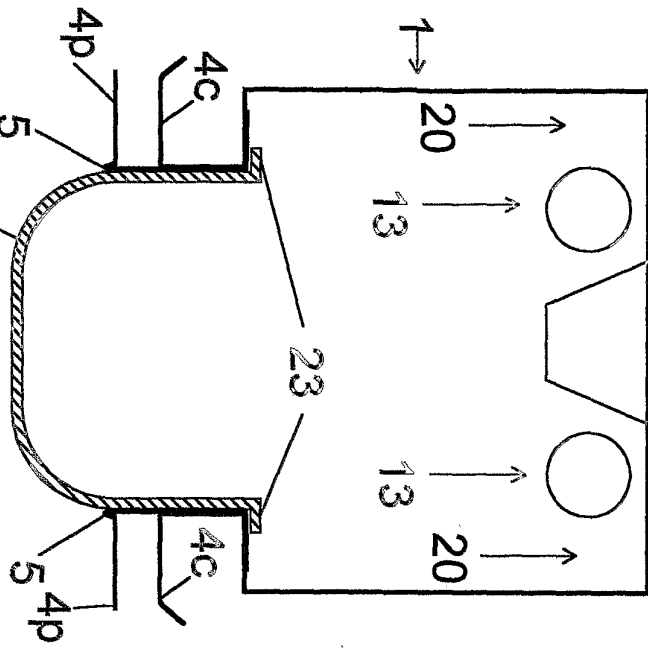
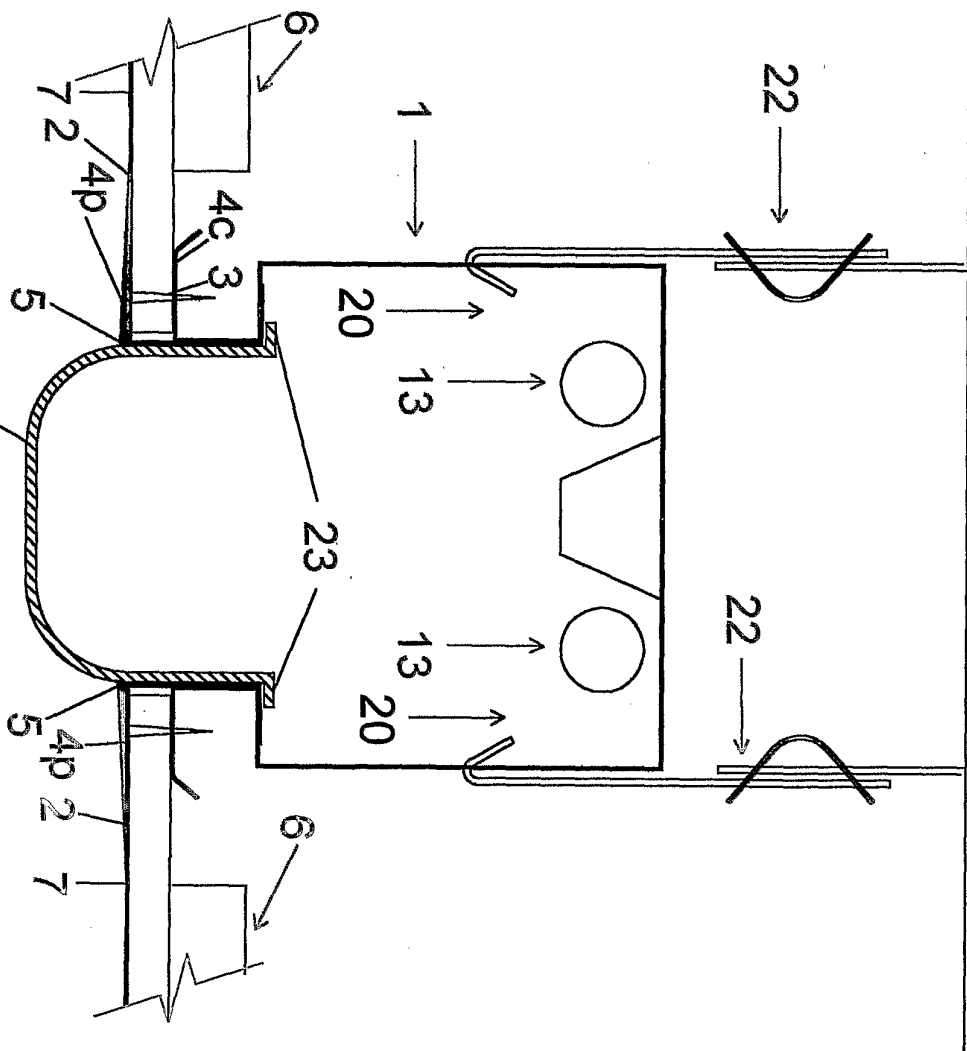
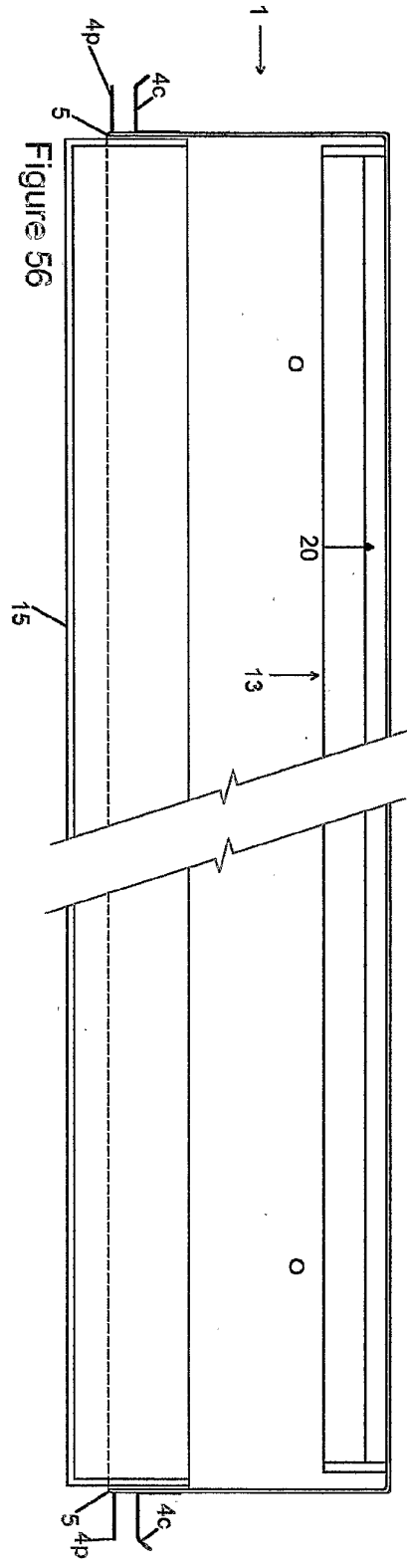
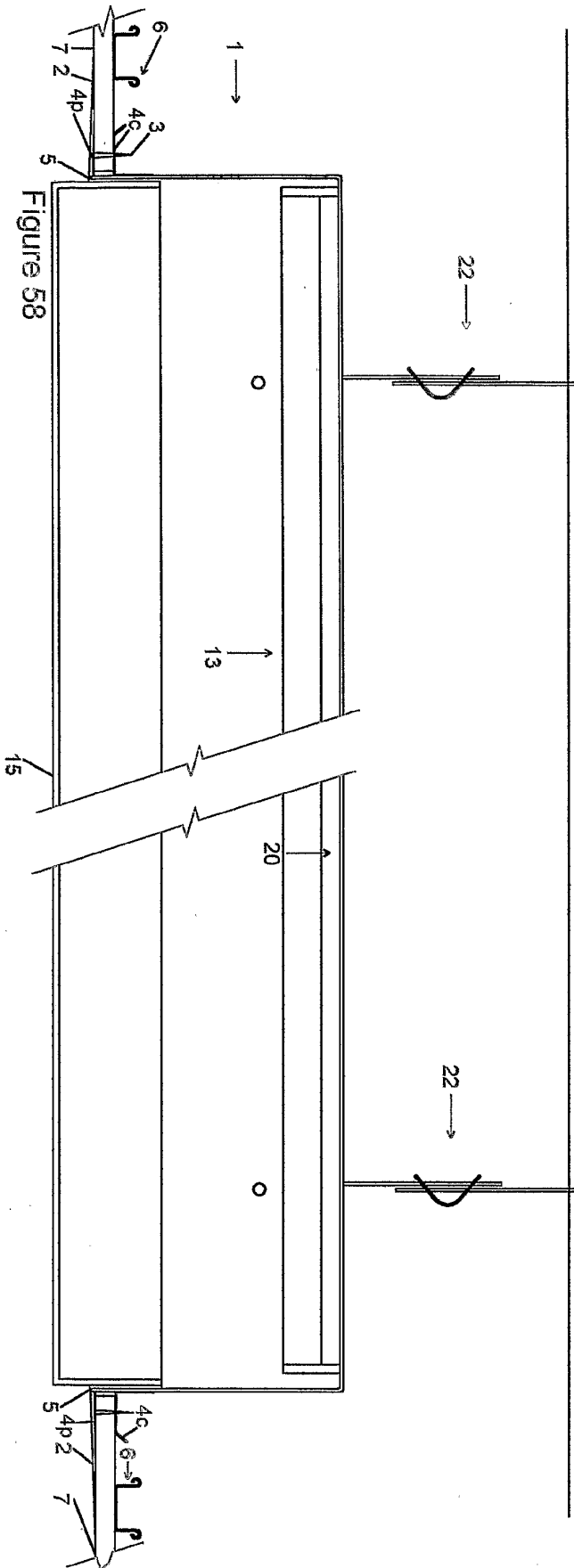


Figure 59





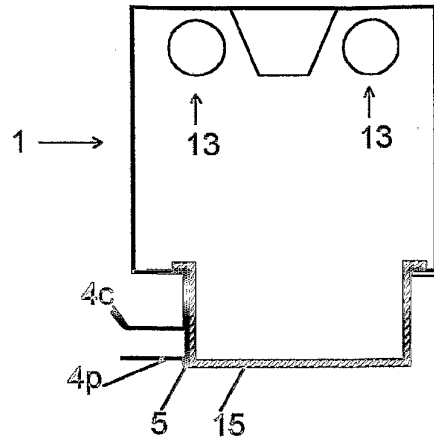


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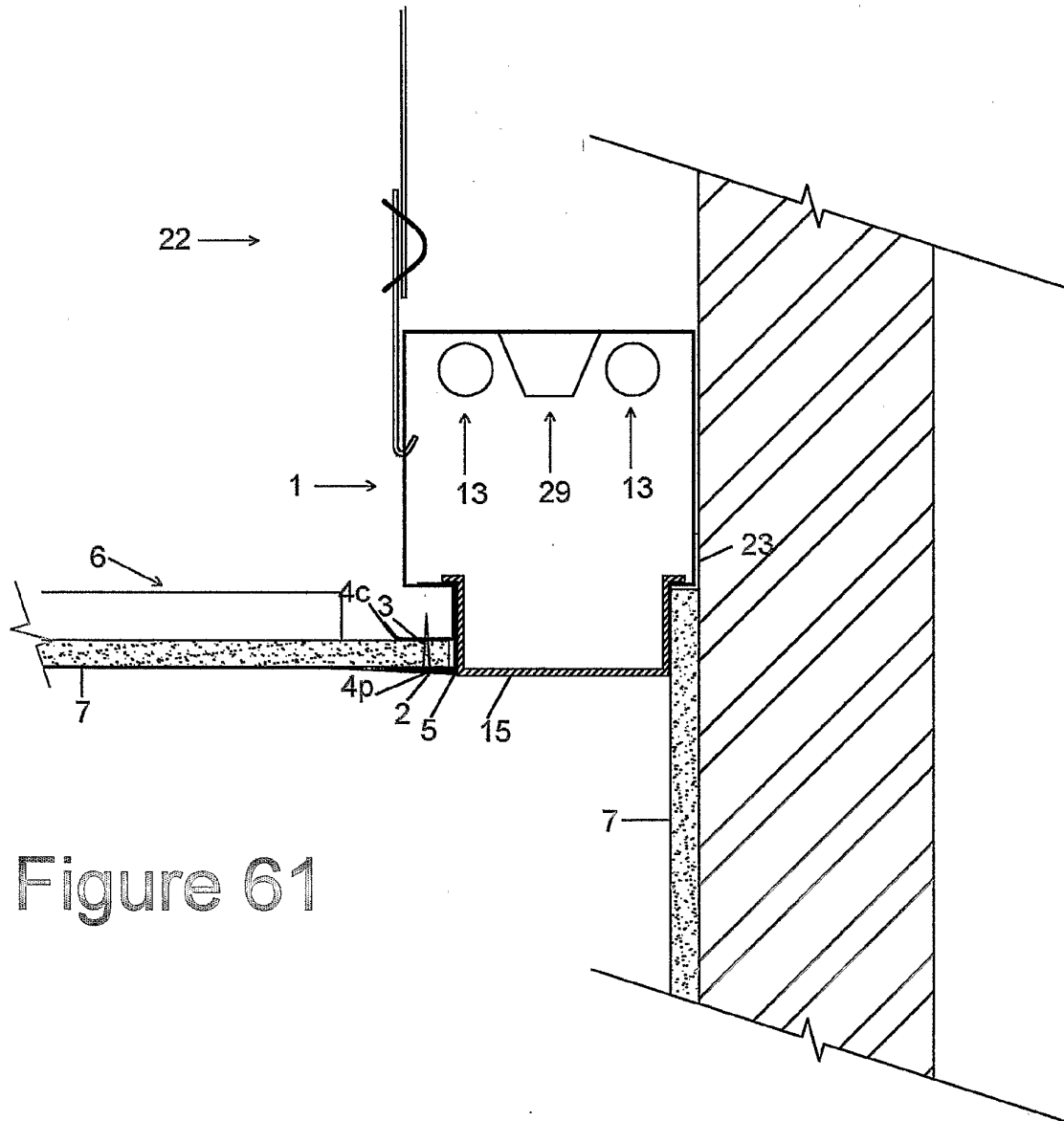


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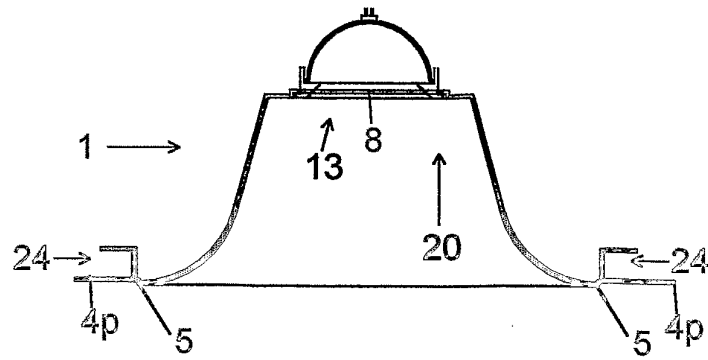


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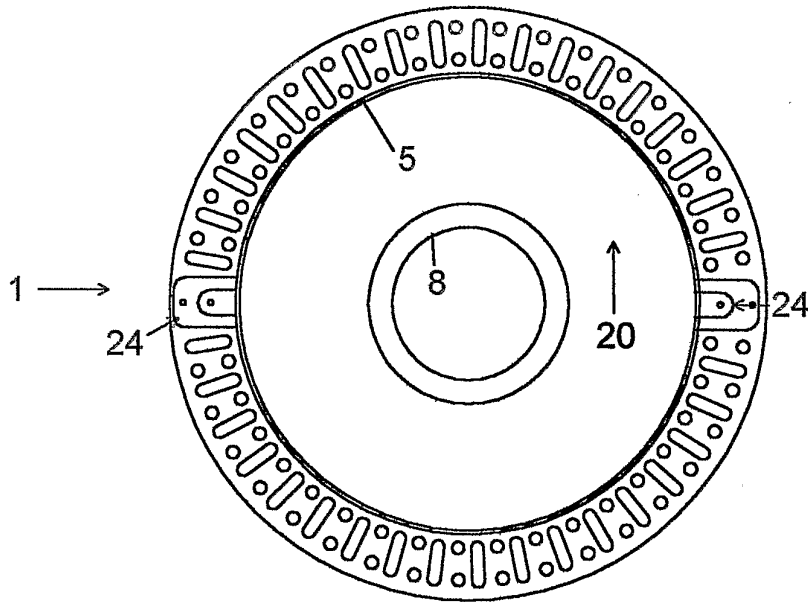


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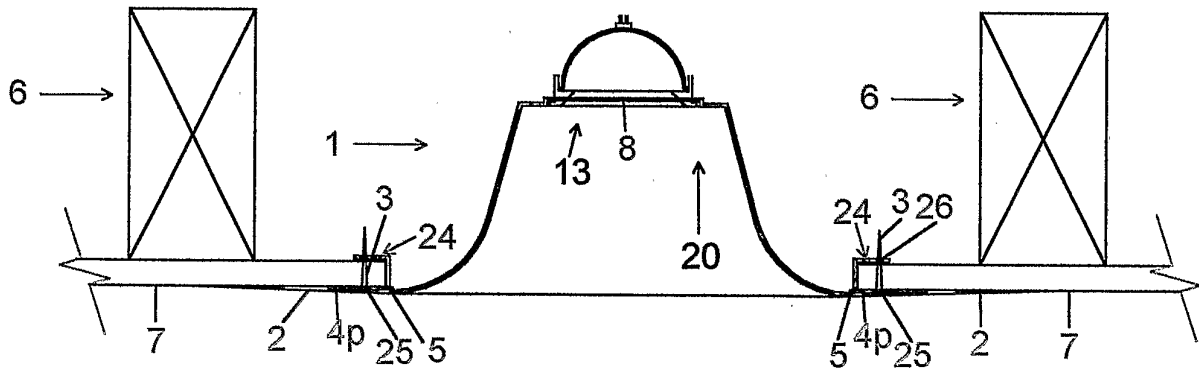


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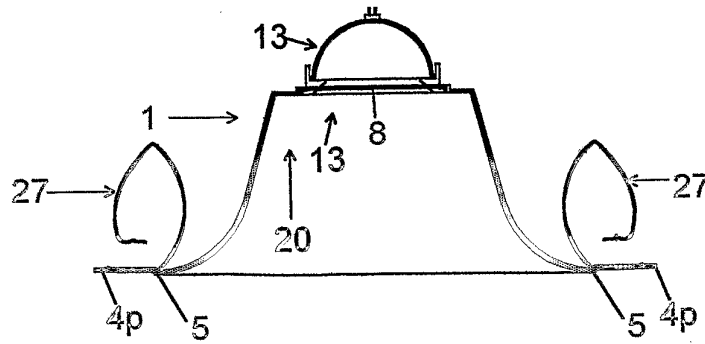


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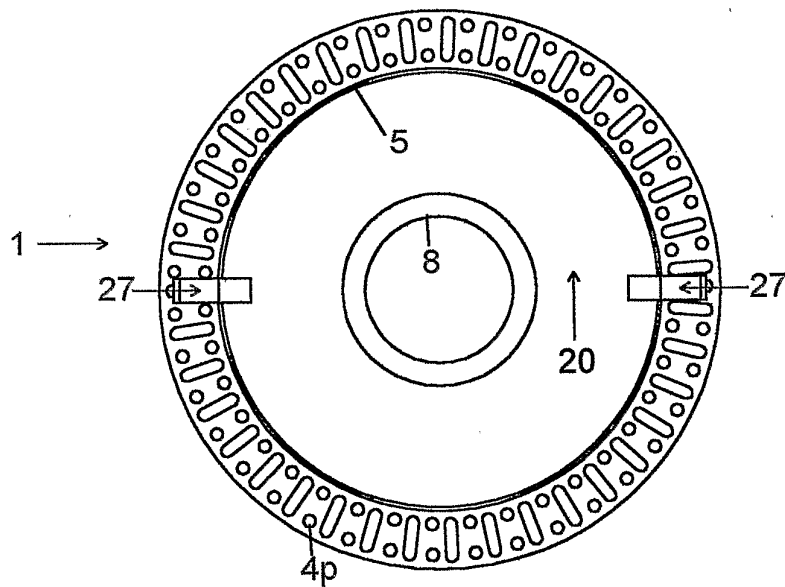


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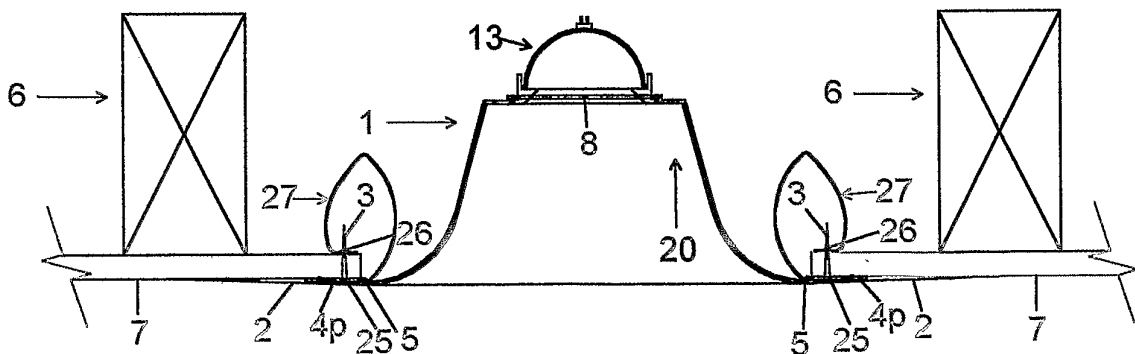


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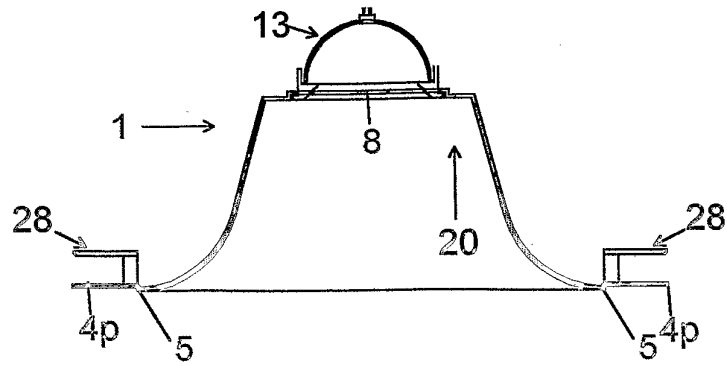


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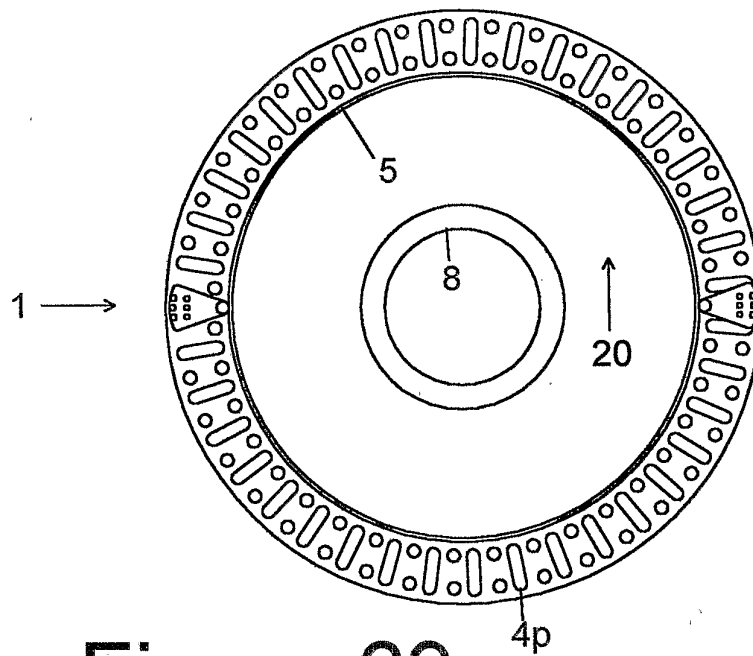


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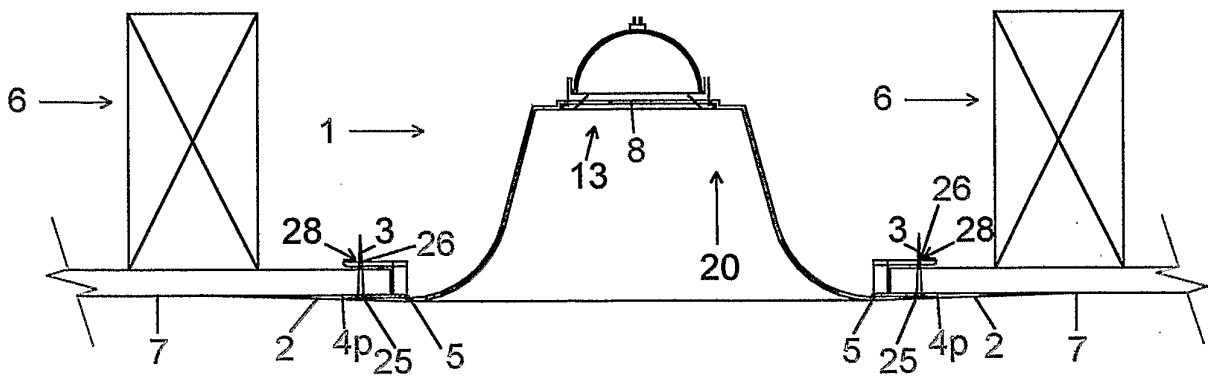


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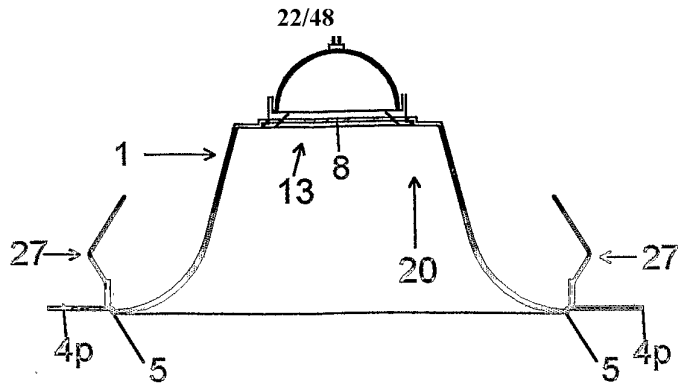


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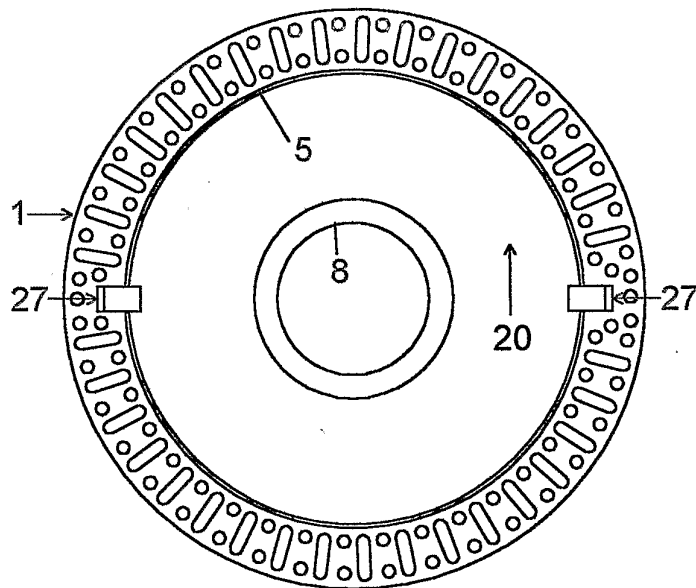


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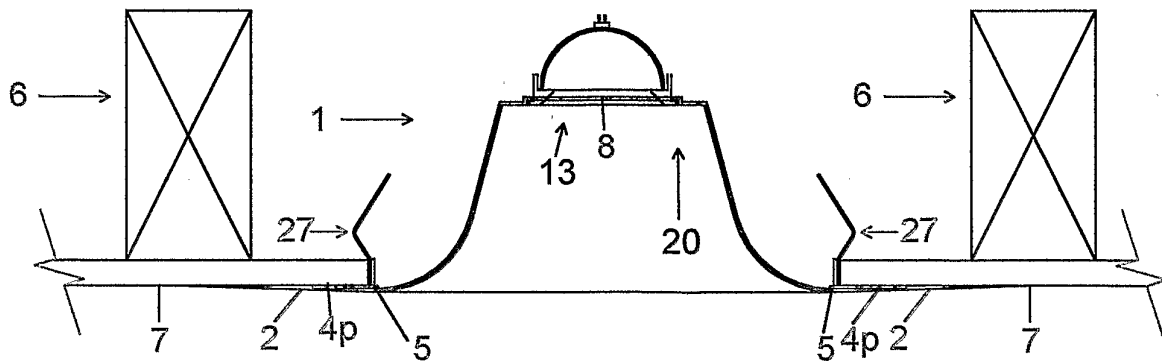


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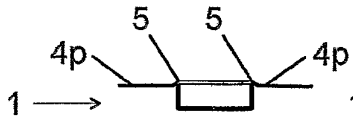


Figure 74



Figure 75

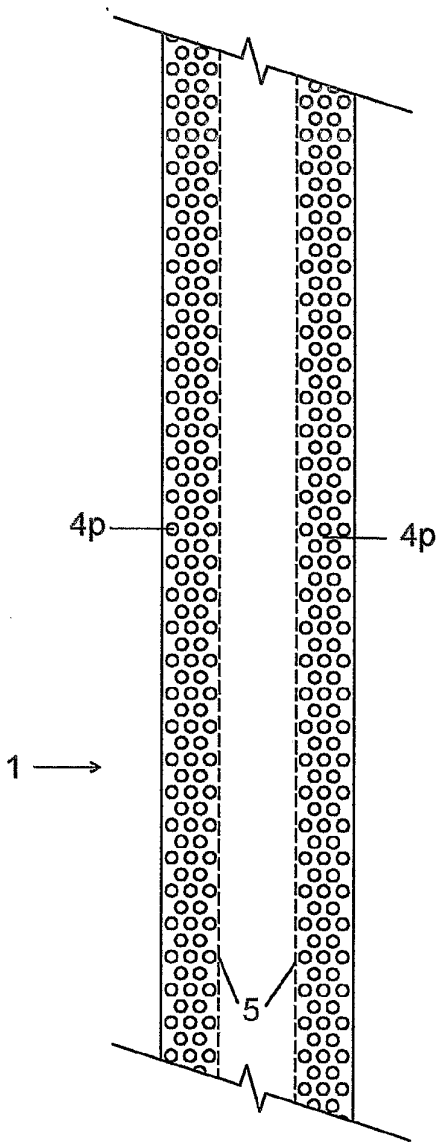


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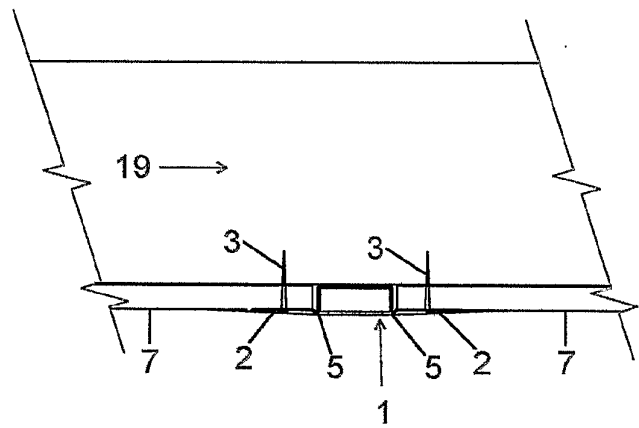


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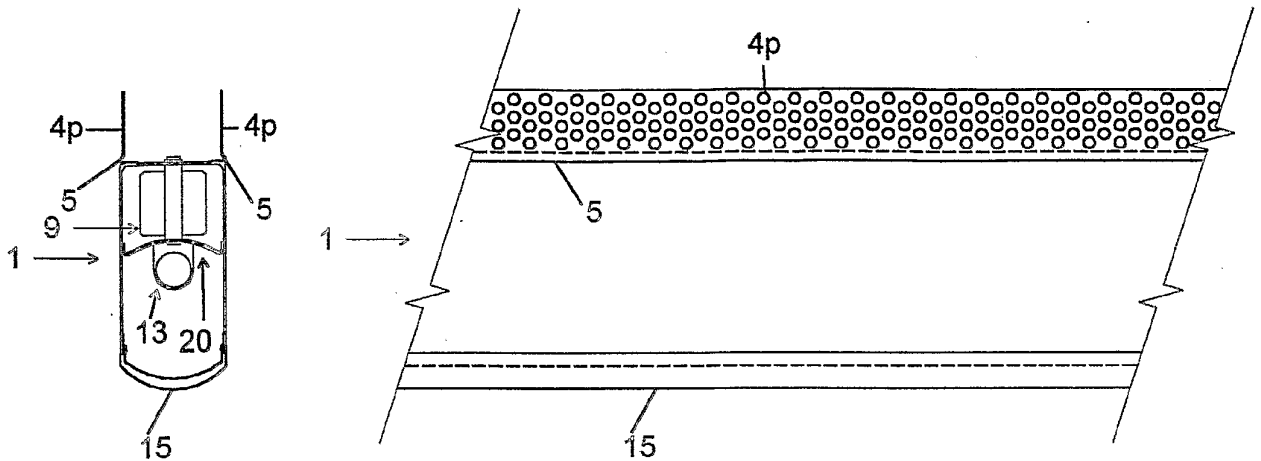


Figure 78

Figure 79

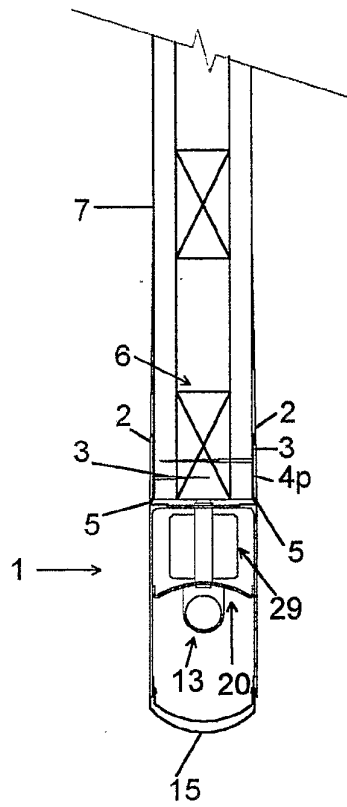


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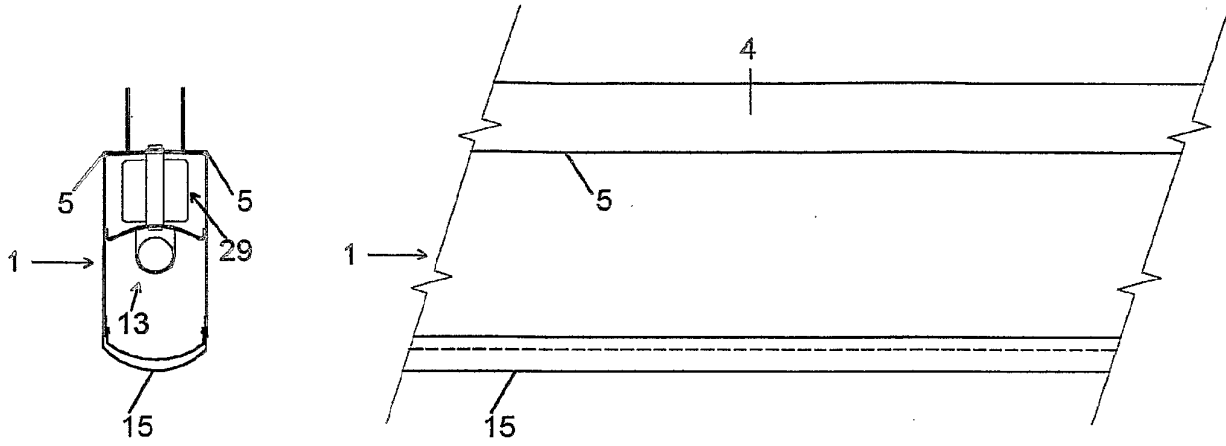


Figure 81

Figure 82

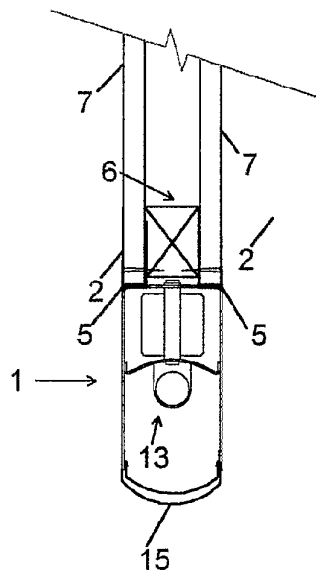


Figure 83

Figure 84

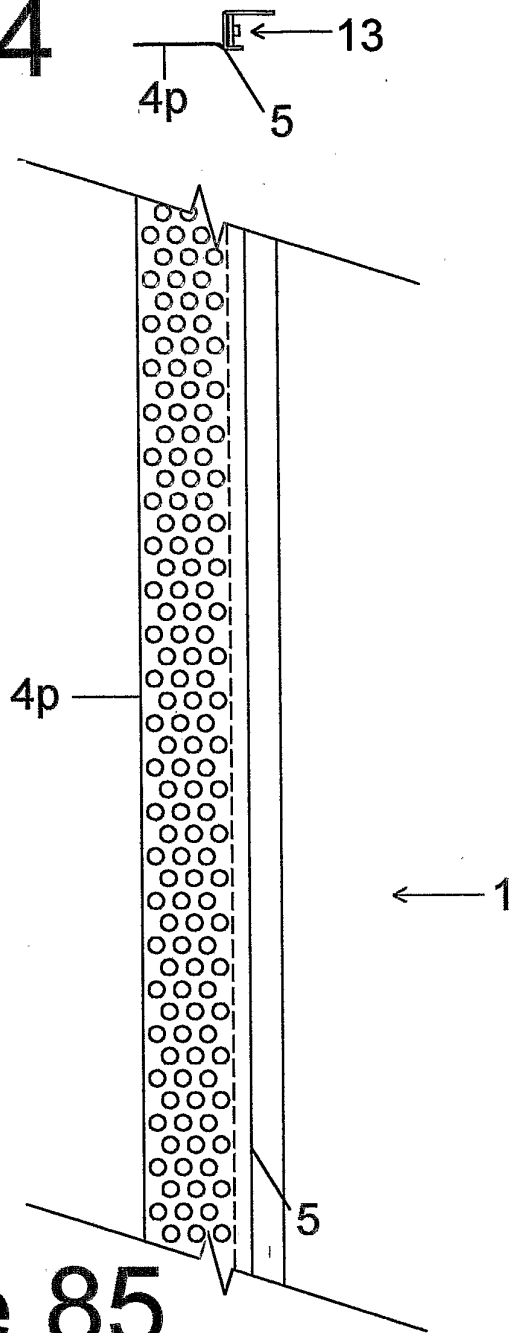


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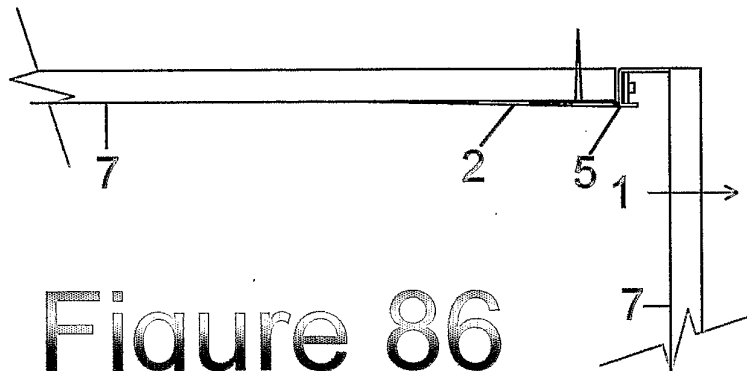


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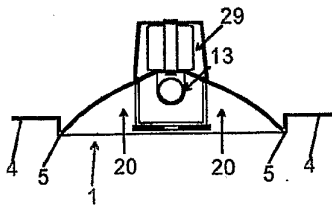


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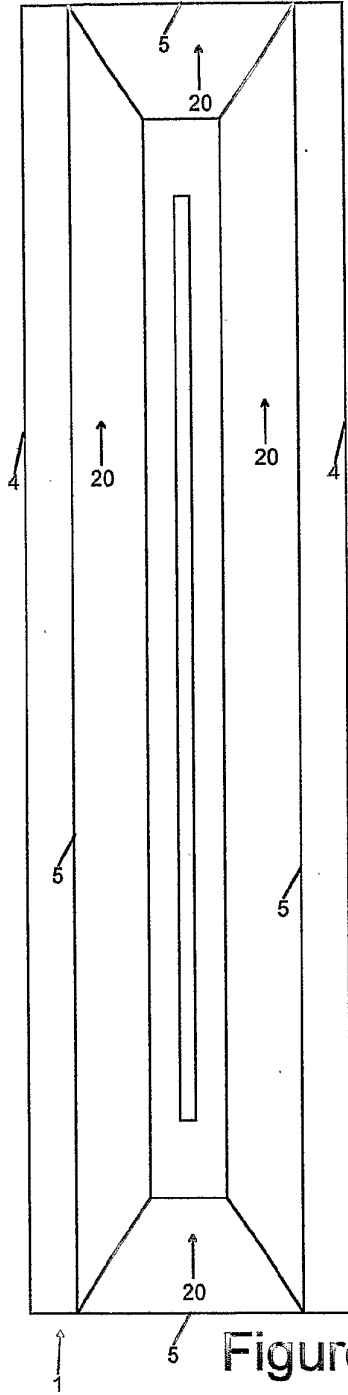


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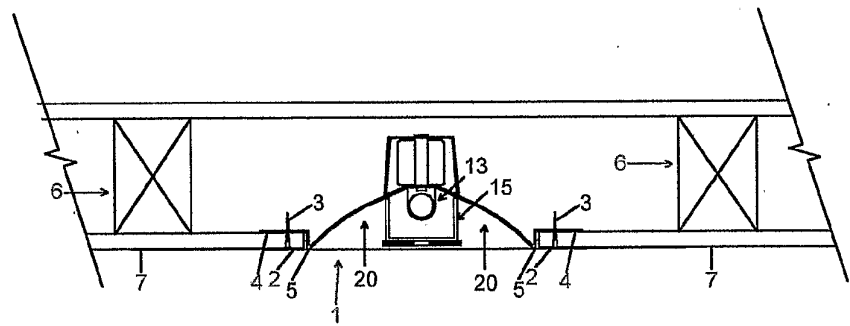


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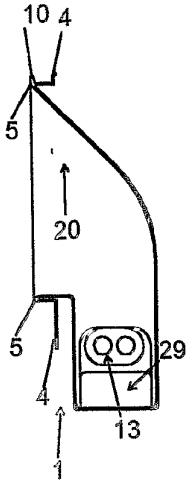


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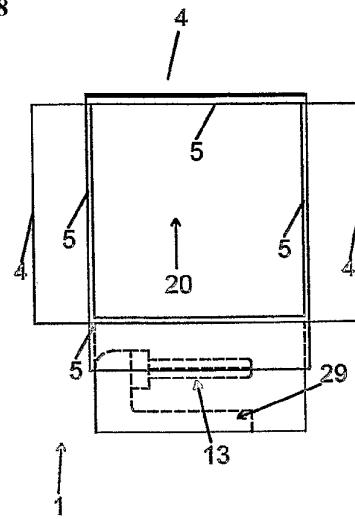


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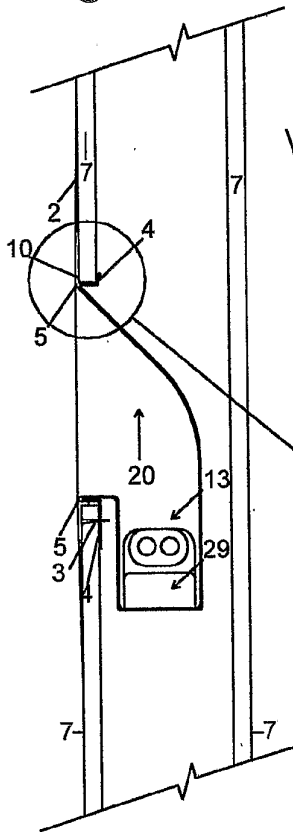


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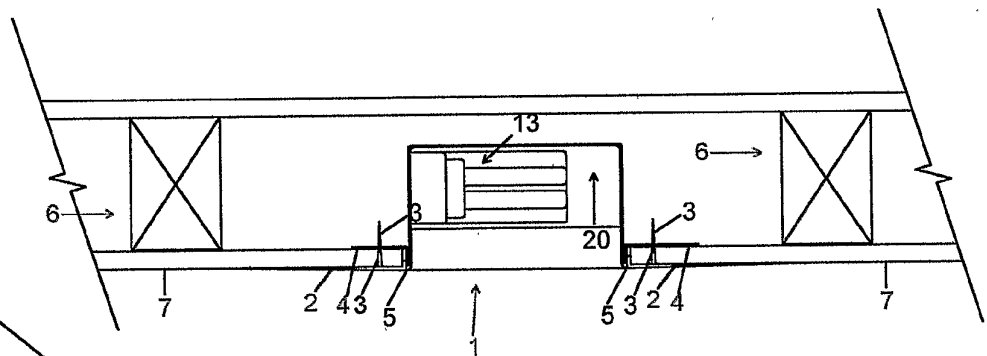


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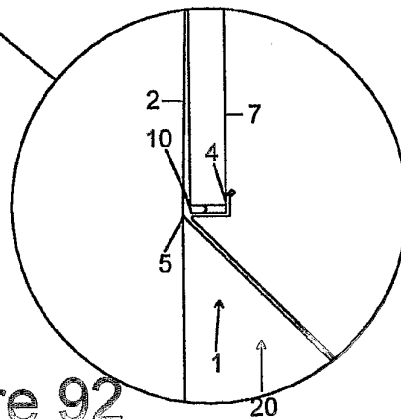


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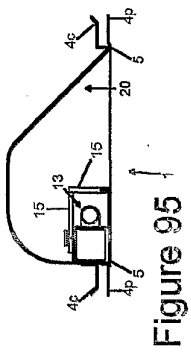


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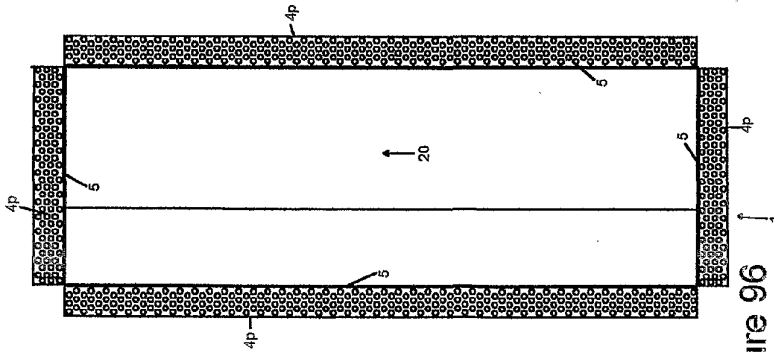


Figure 96

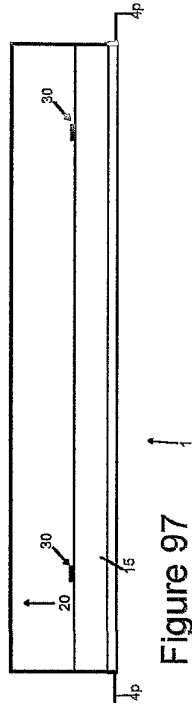


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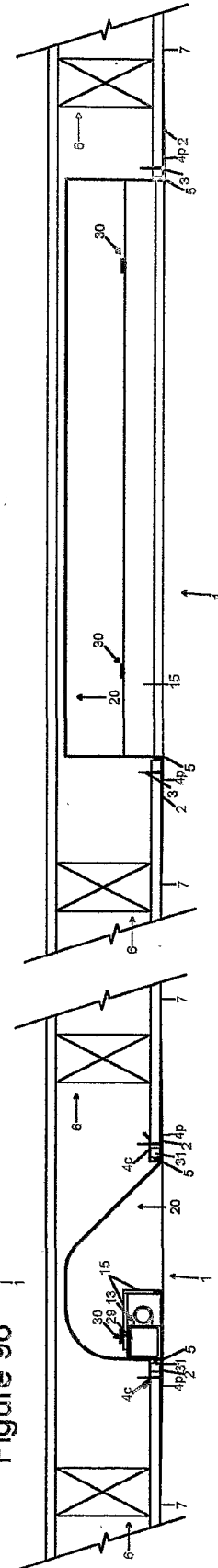


Figure 98

Figure 99

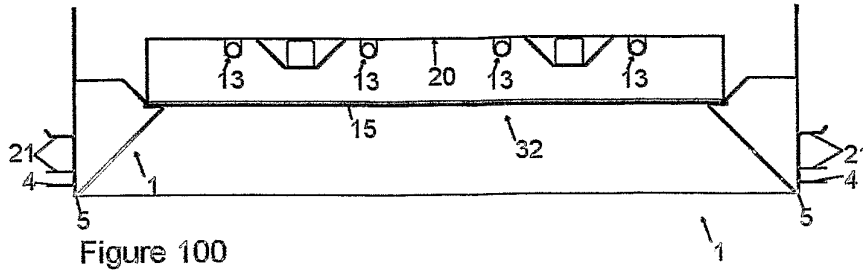


Figure 100

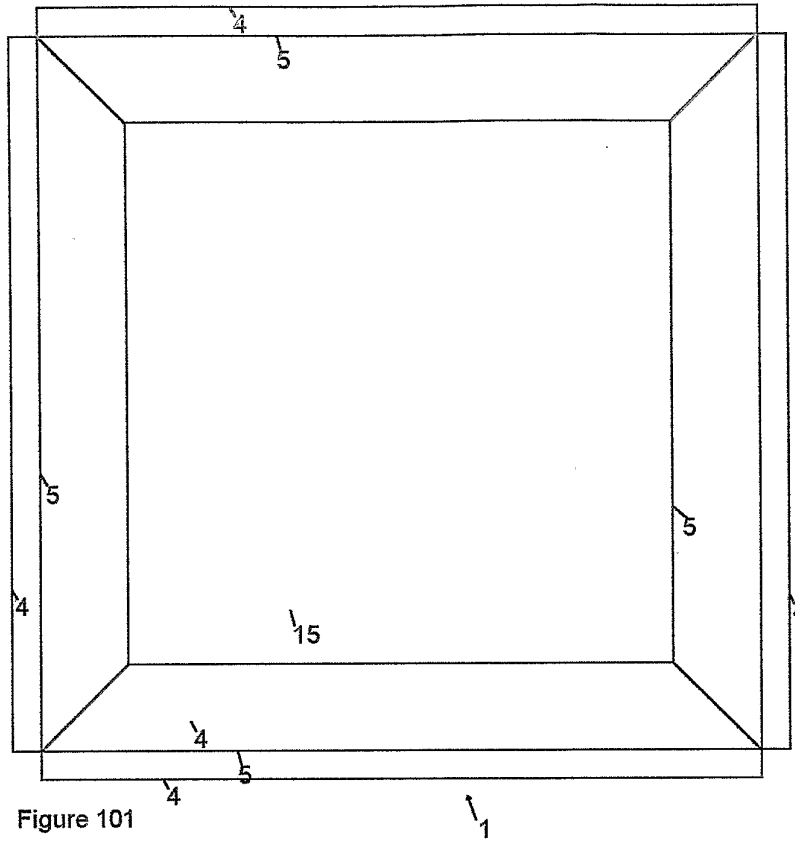


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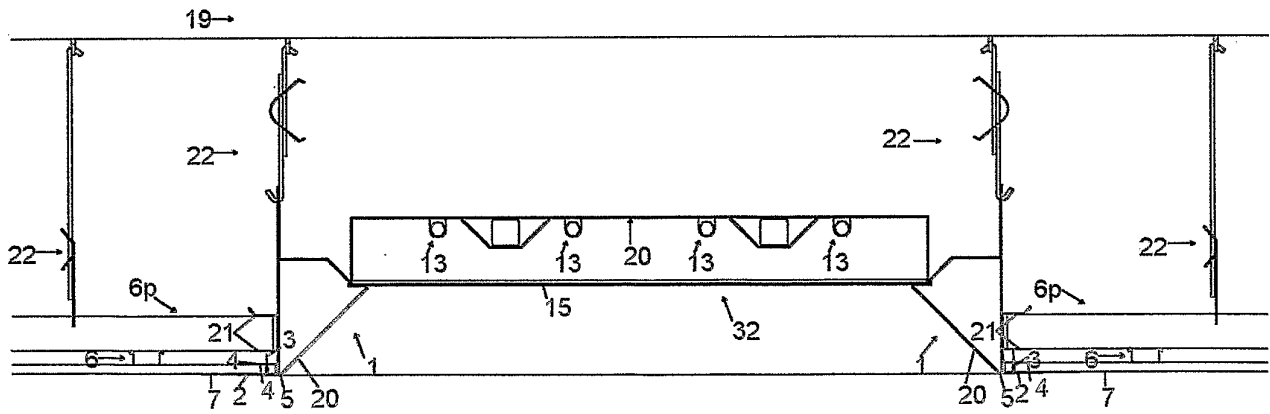


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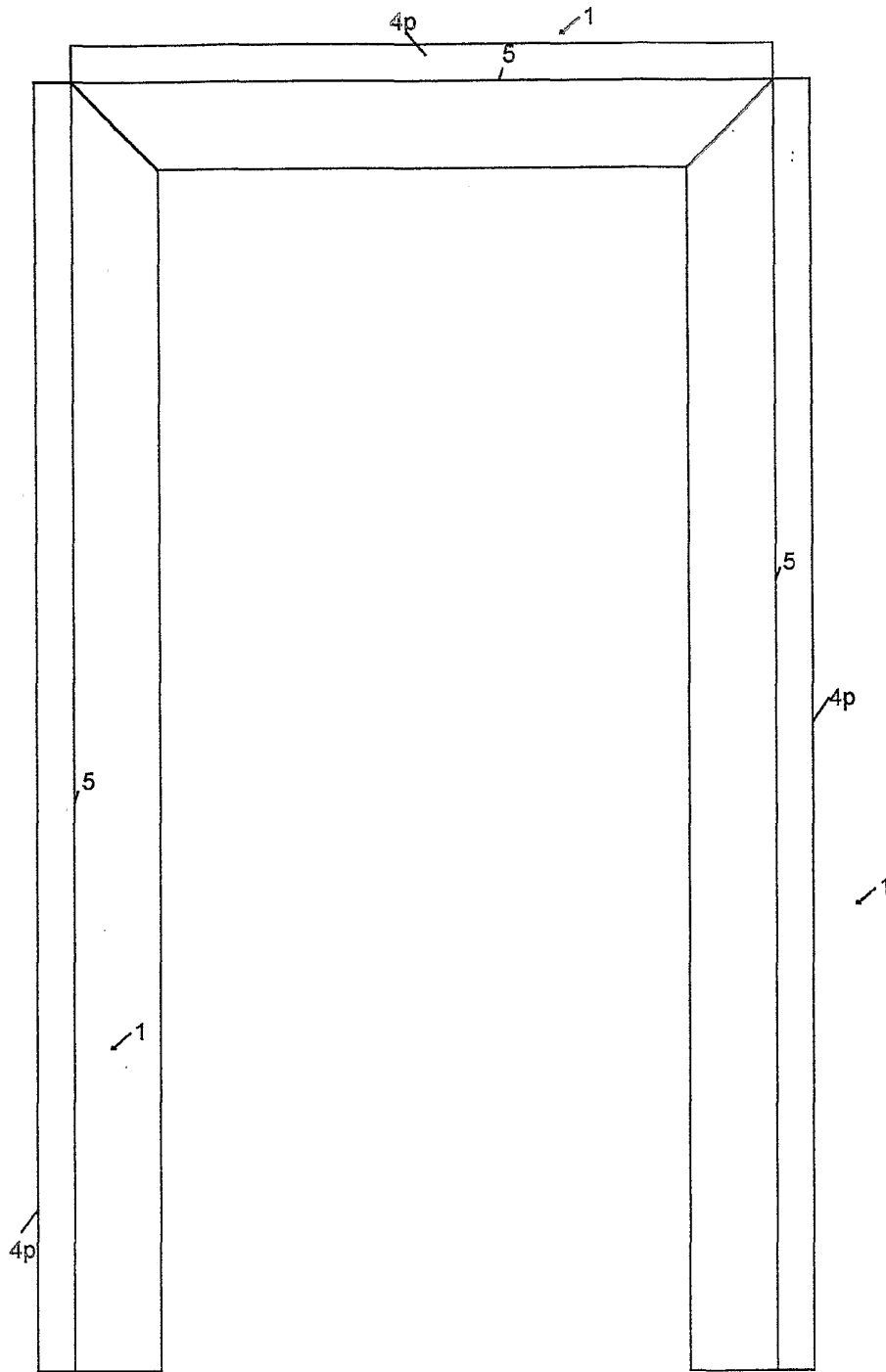
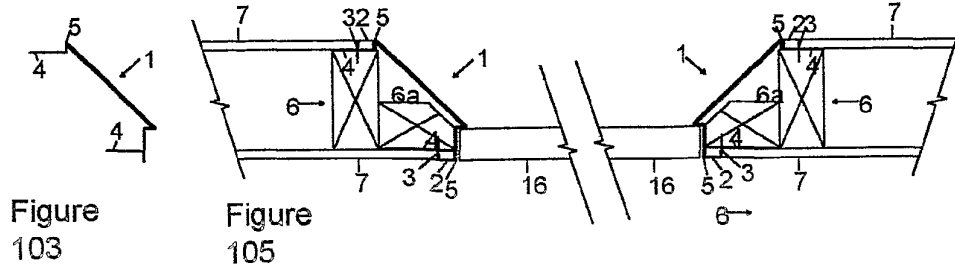


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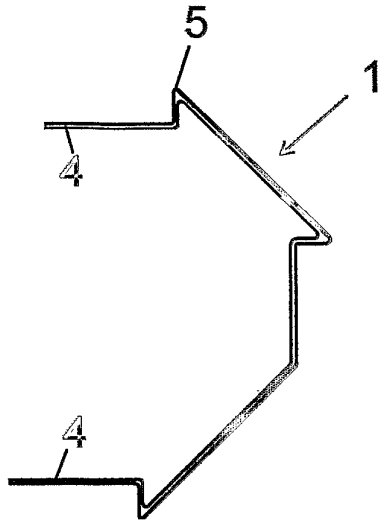


Figure
106

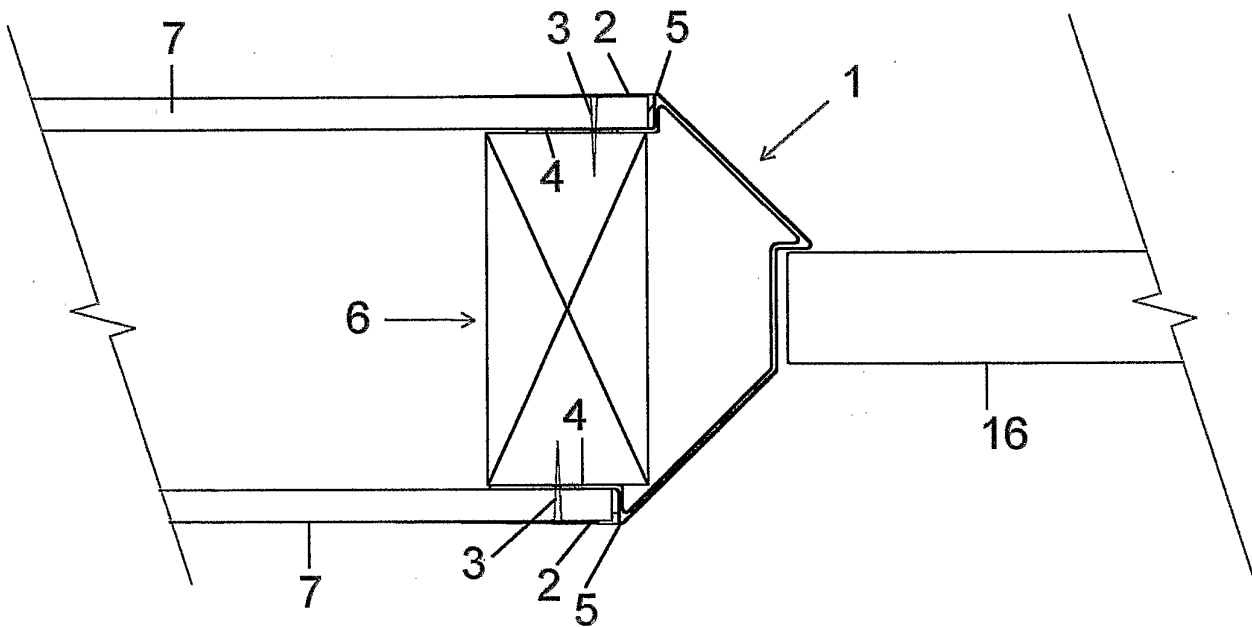


Figure
107

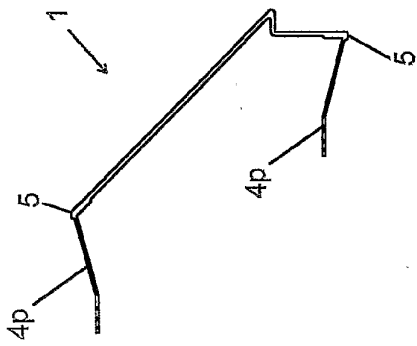


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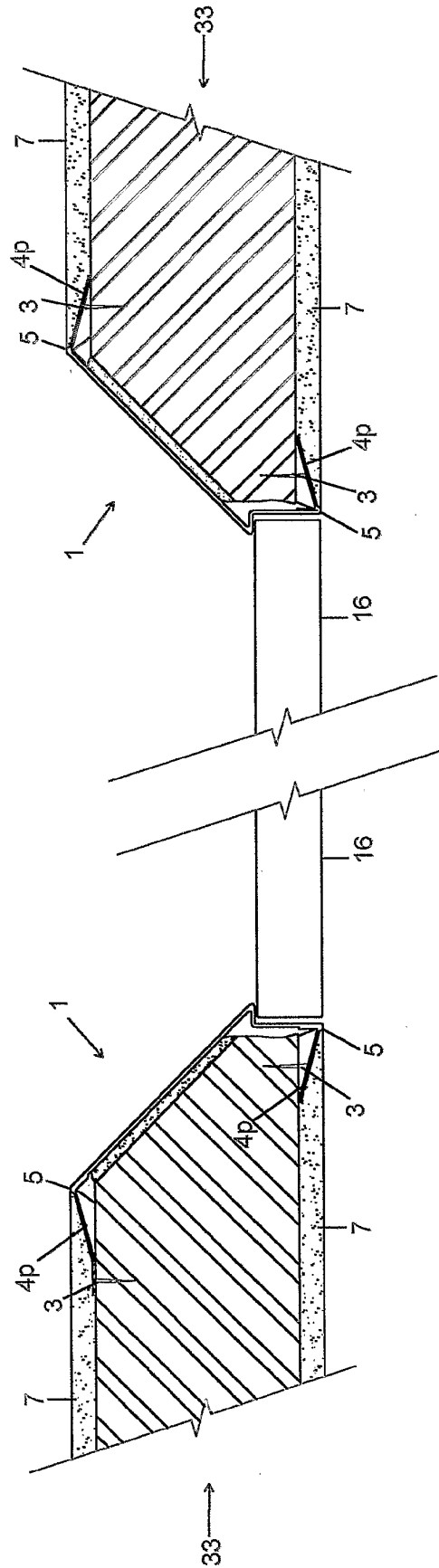


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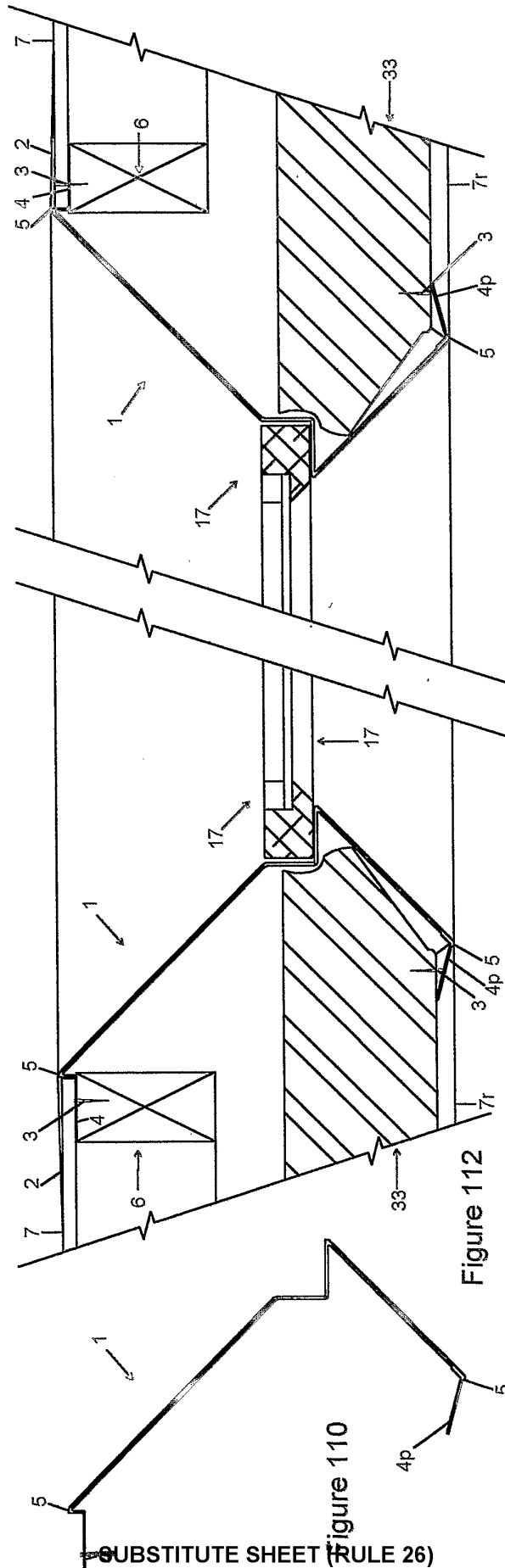


Figure 112

Figure 110

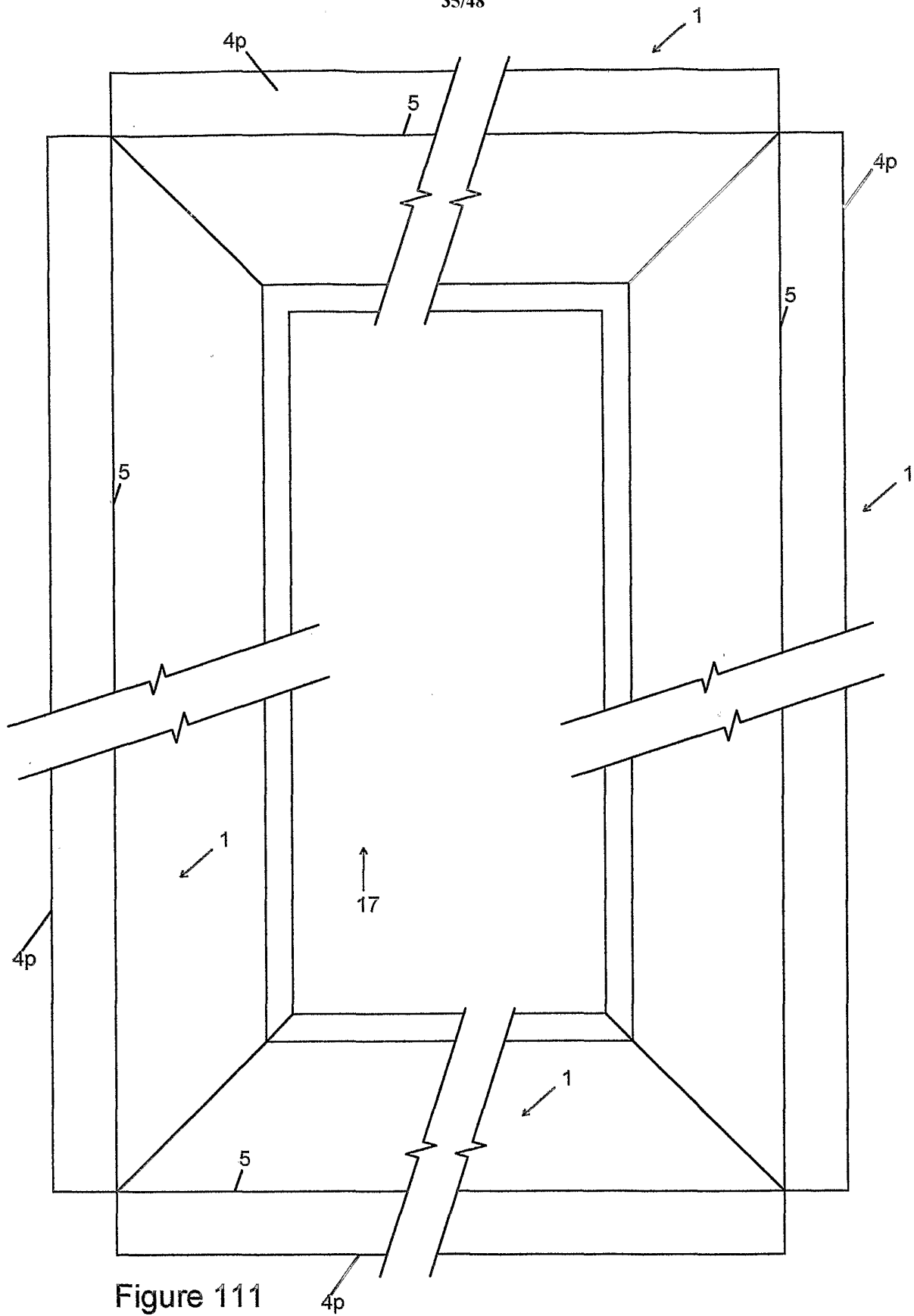


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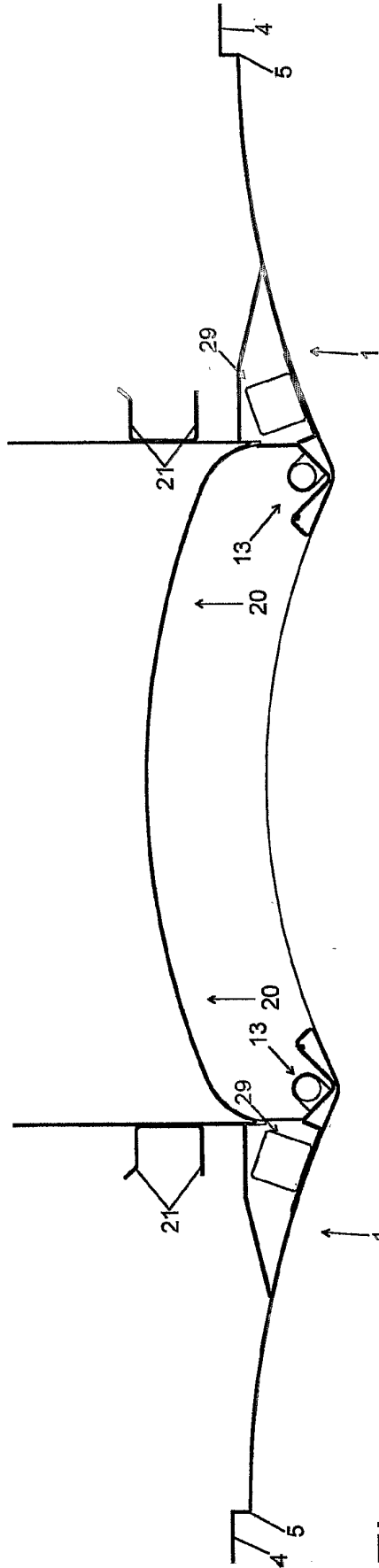


Figure
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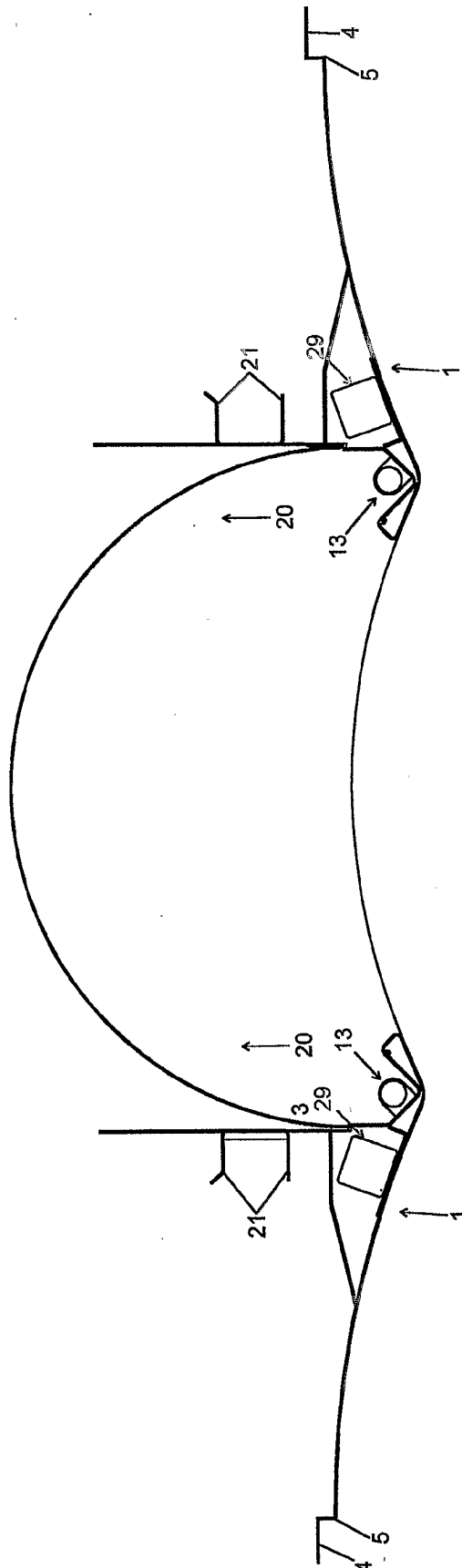
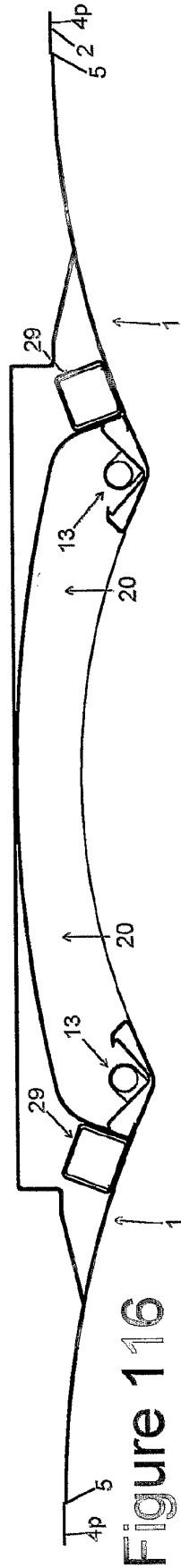


Figure
114



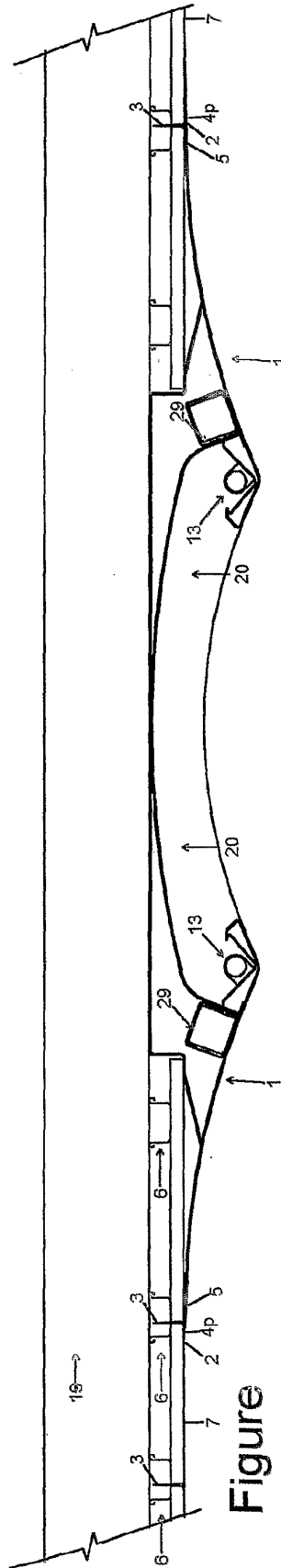


Figure 117

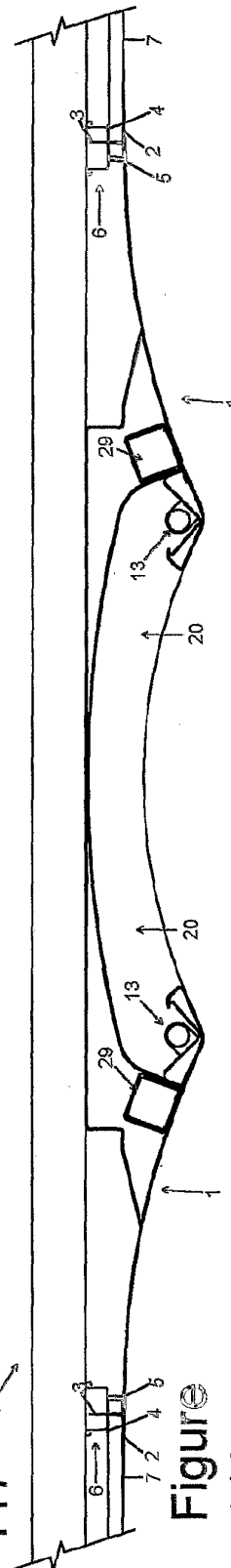


Figure 119

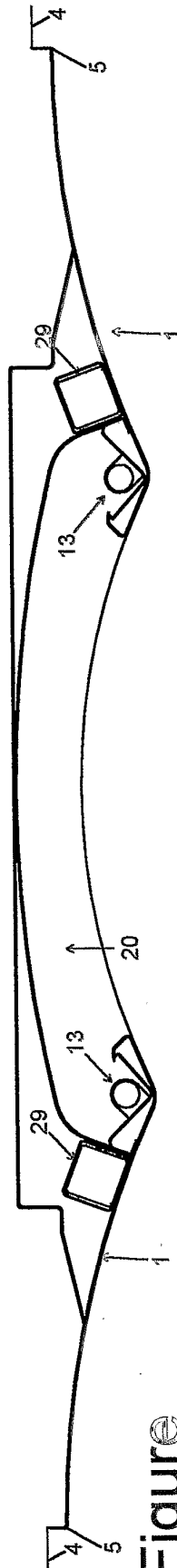


Figure 118

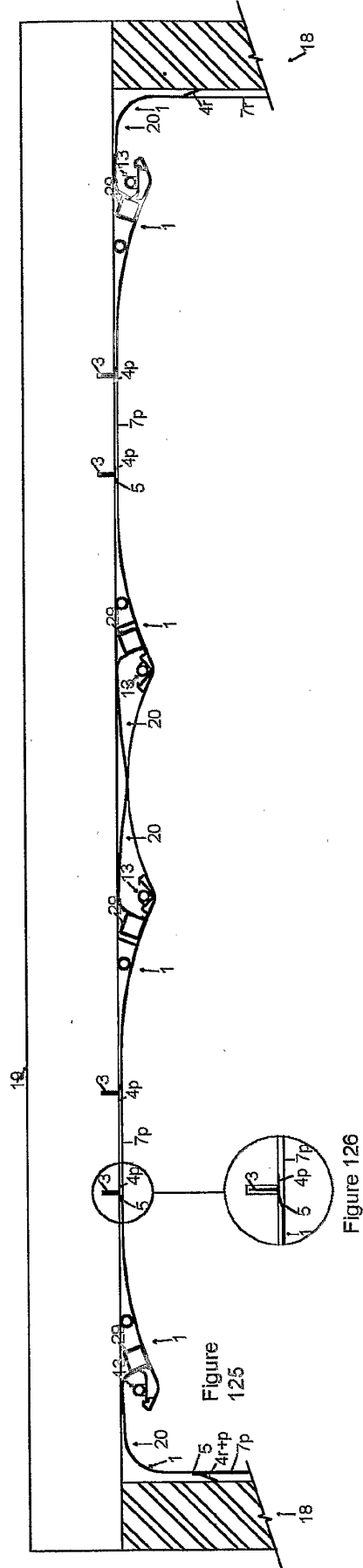
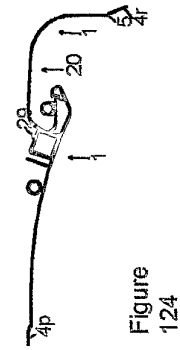
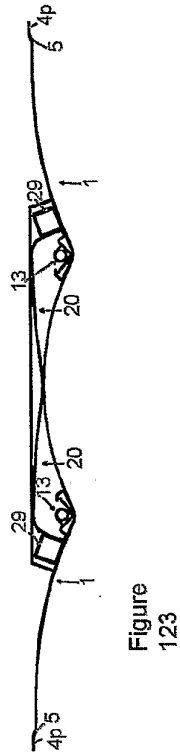
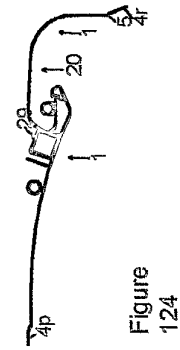
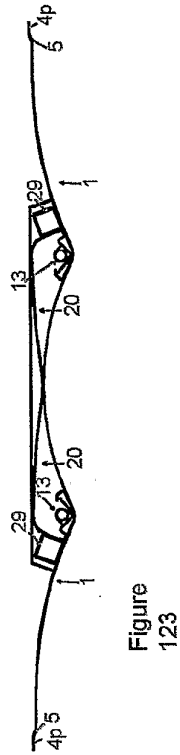
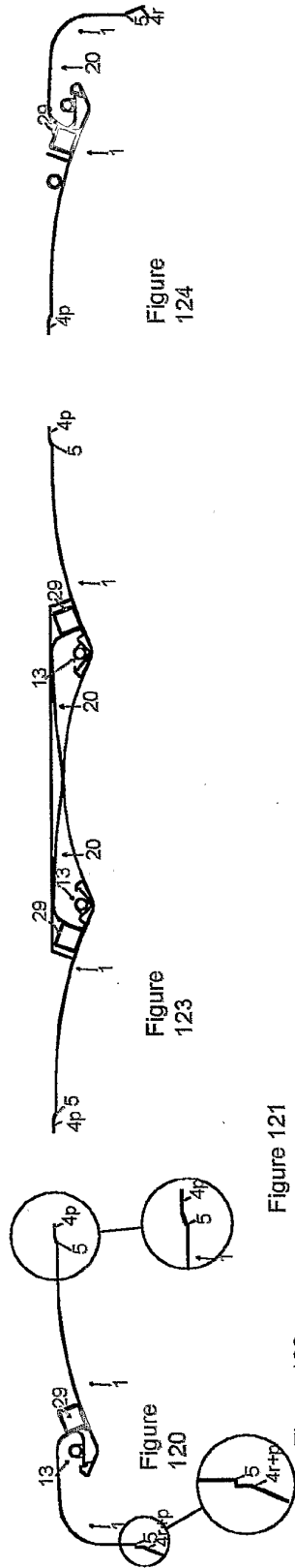
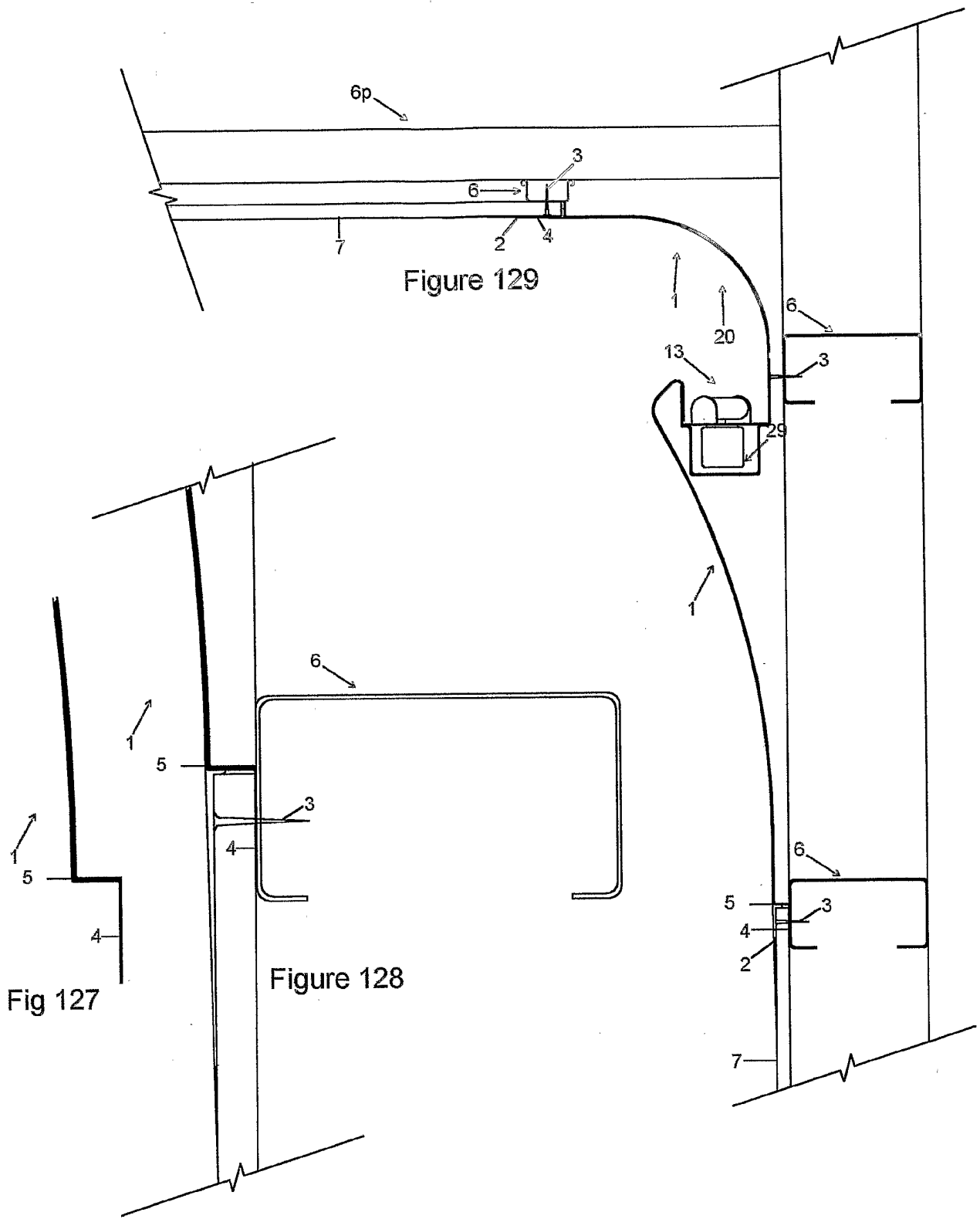
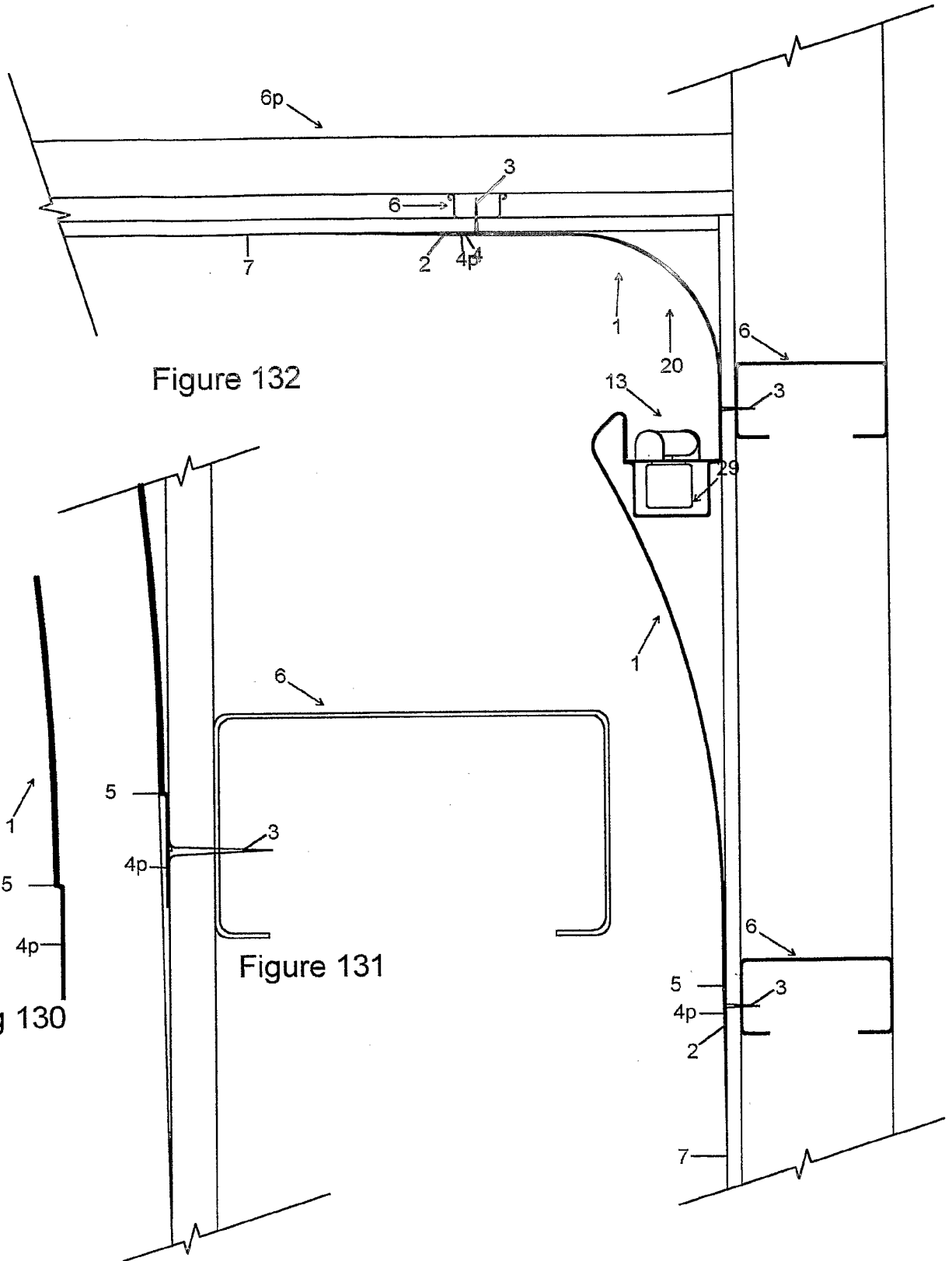


Figure 126





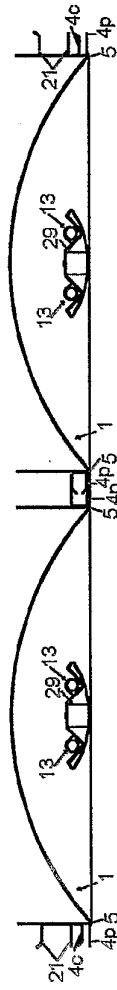


Figure 133

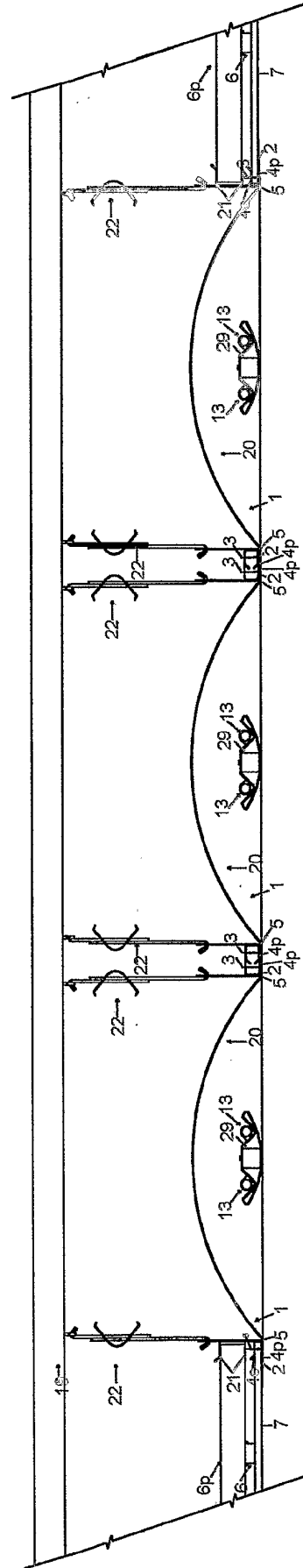


Figure 134

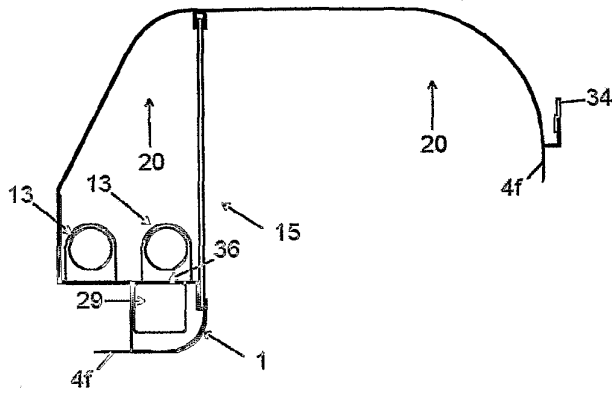


Figure 135

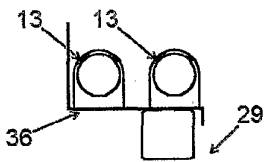


Figure 137

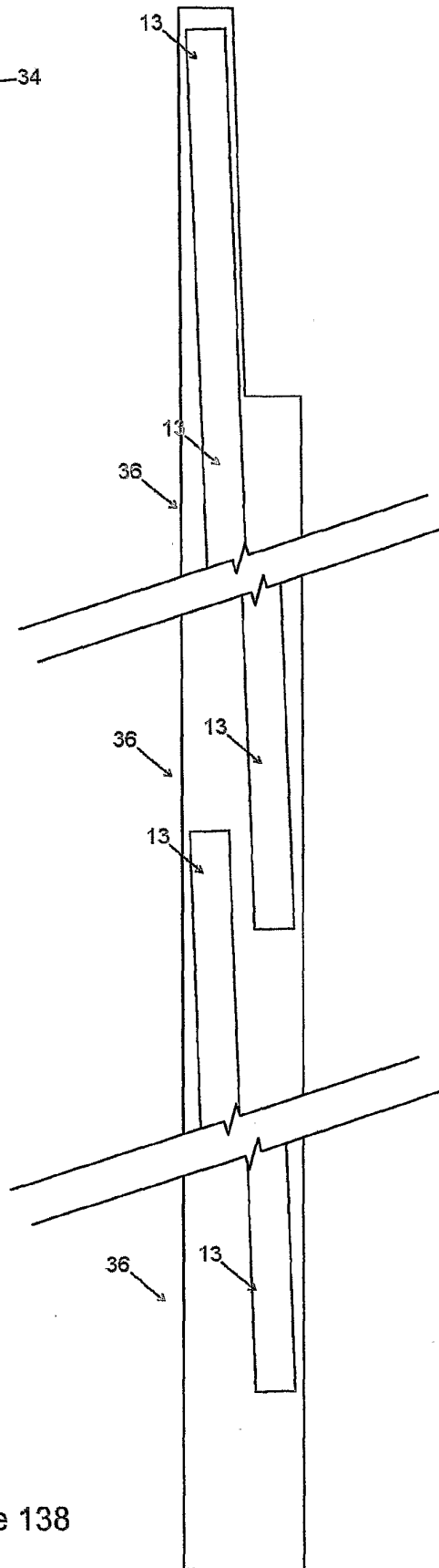
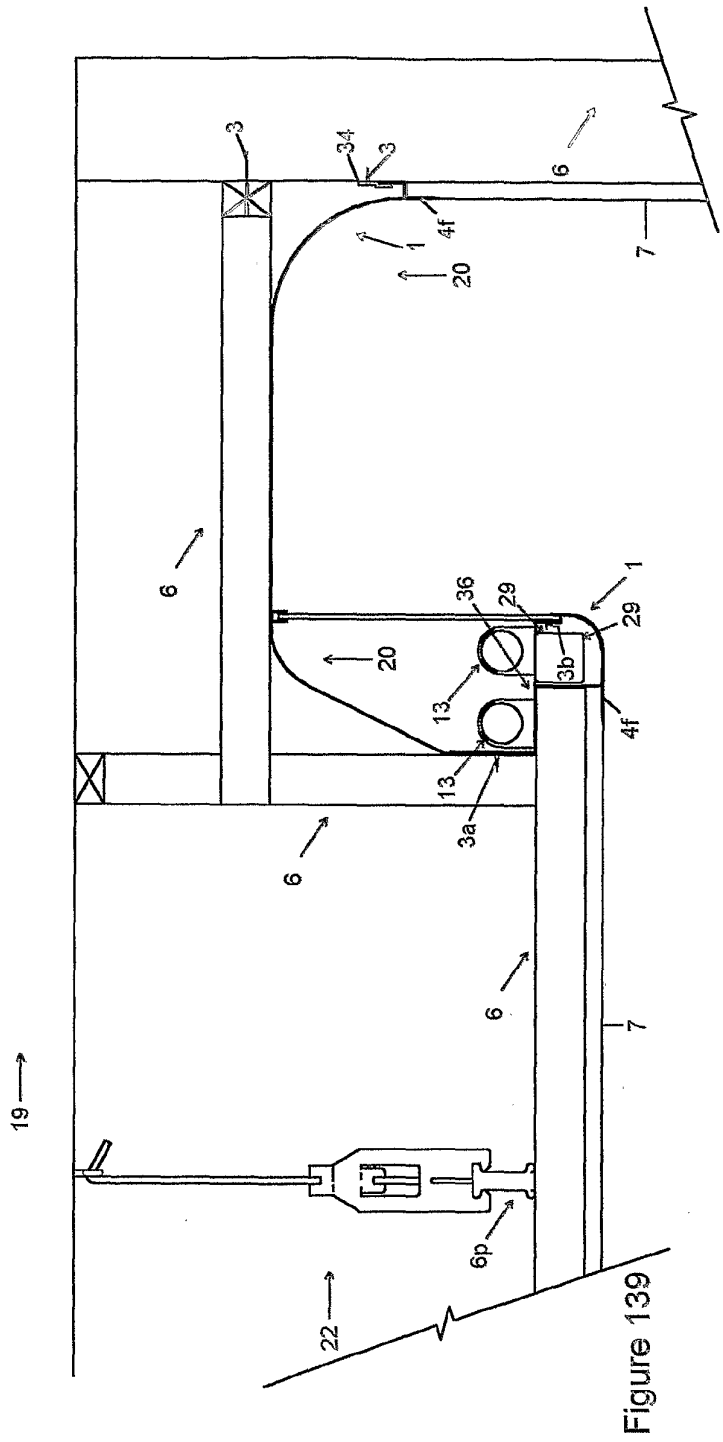
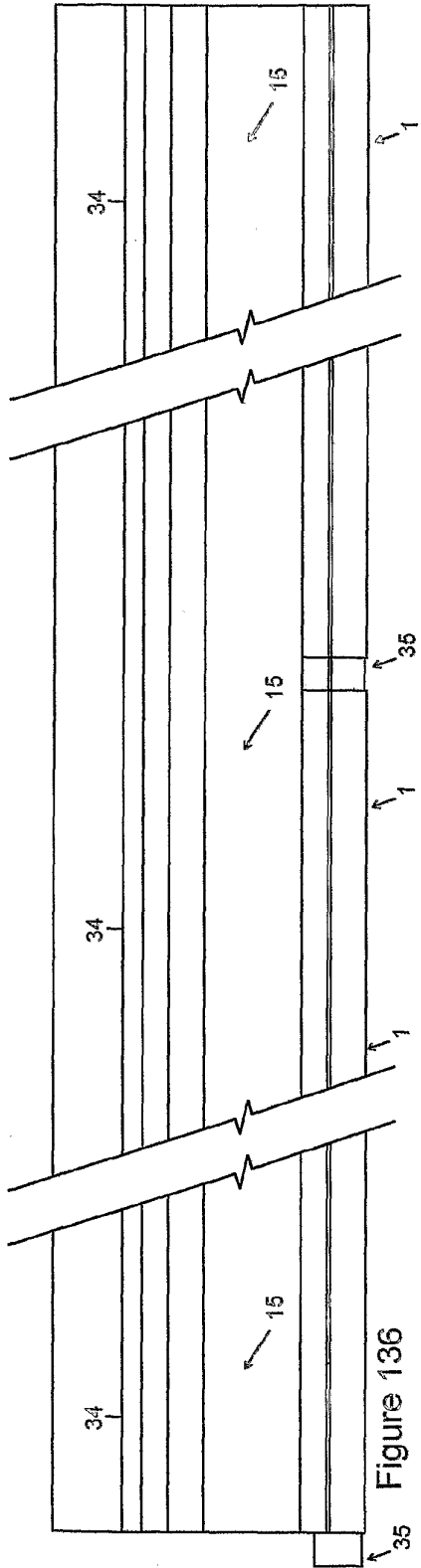


Figure 138



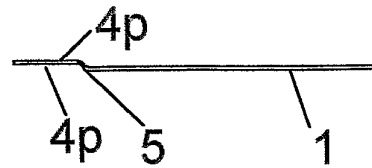


Figure 141

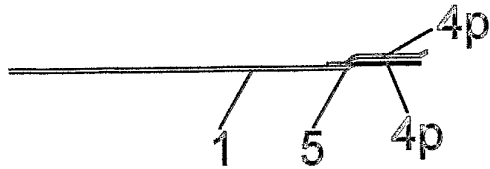


Figure 142

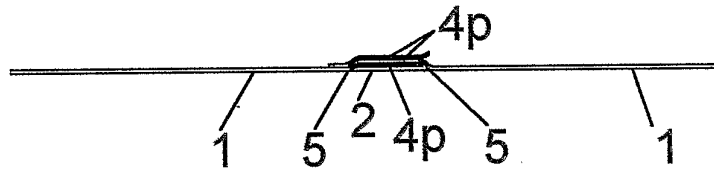


Figure 143

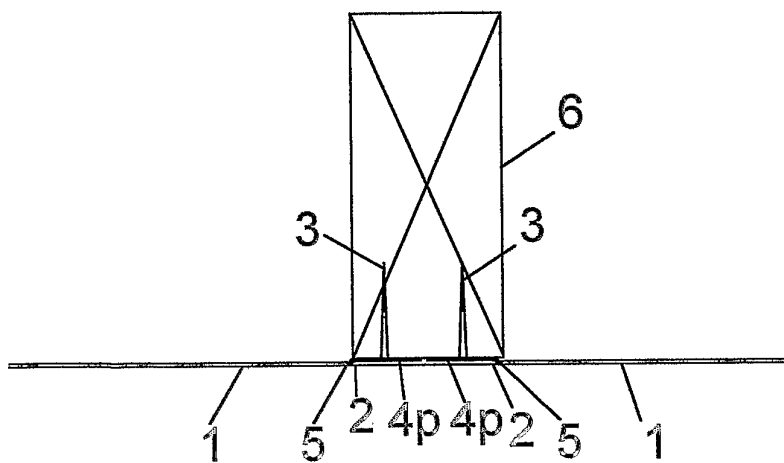


Figure 140