

(12) UK Patent Application (19) GB (11) 2 426 032 (13) A

(43) Date of A Publication 15.11.2006

(21) Application No: 0609010.4

(22) Date of Filing: 08.05.2006

(30) Priority Data:
(31) 0509709 (32) 12.05.2005 (33) GB

(71) Applicant(s):
Paul Dennis Lewis
3 Howsham Lane, SEARBY, Lincolnshire,
DN38 6DA, United Kingdom

(72) Inventor(s):
Paul Dennis Lewis

(74) Agent and/or Address for Service:
Paul Dennis Lewis
3 Howsham Lane, SEARBY, Lincolnshire,
DN38 6DA, United Kingdom

(51) INT CL:
A47G 25/06 (2006.01)

(52) UK CL (Edition X):
E2A AHB AHL

(56) Documents Cited:
CH 000691162 A **US 6267257 A**
US 2150826 A **US 2070408 A**
US 1603956 A **US 1480829 A**

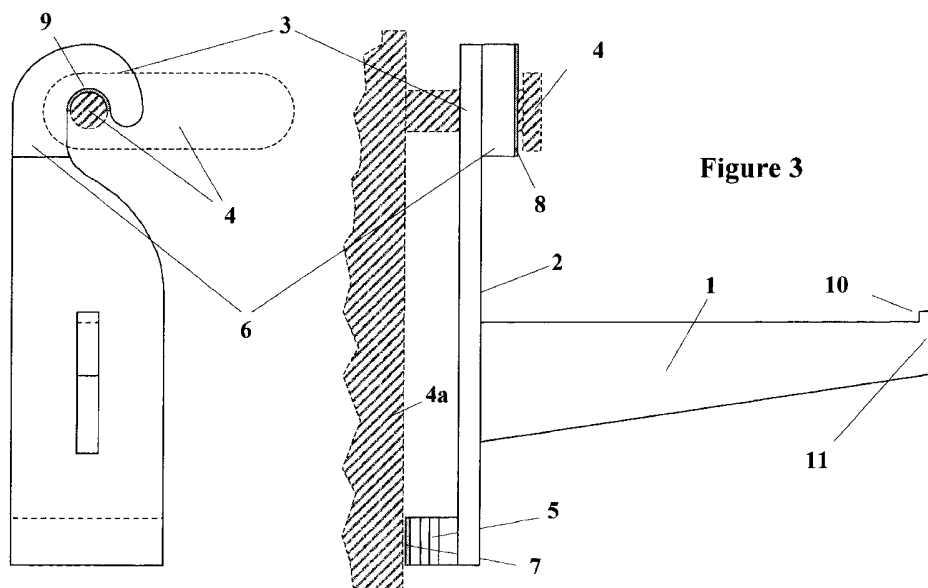
(58) Field of Search:
UK CL (Edition X) **E2A**
INT CL **A47G, A47K**
Other: **WPI, EPODOC**

(54) Abstract Title: **Clothes hanger support**

(57) A clothes hanger support comprising a structure that supports a number of clothes hangers and is itself supported from a wide variety of convenient mounting points such as door handles.

A support arm 1 for a number of hangers extends from an elongate body 2 which has a support formation 3 for receiving a protrusion such as a door handle 4. As shown the formation 3 is a hook but it can be an aperture or a hook orientated in the opposite direction.

The support may : allow the supported clothes hangers to be supported at more than one height, fold up and or be dismantled for compact storage, adapt easily to a variety of different protrusions and protrusion orientations, allow continued proper function of the door handle and door, include features to reduce the load on the protrusion, provide protective surfaces to prevent damage with decorative surfaces into which it may come into contact, provide means to keep the clothes hanger support arm level and provide means to prevent individual clothes hangers moving along or falling off it.



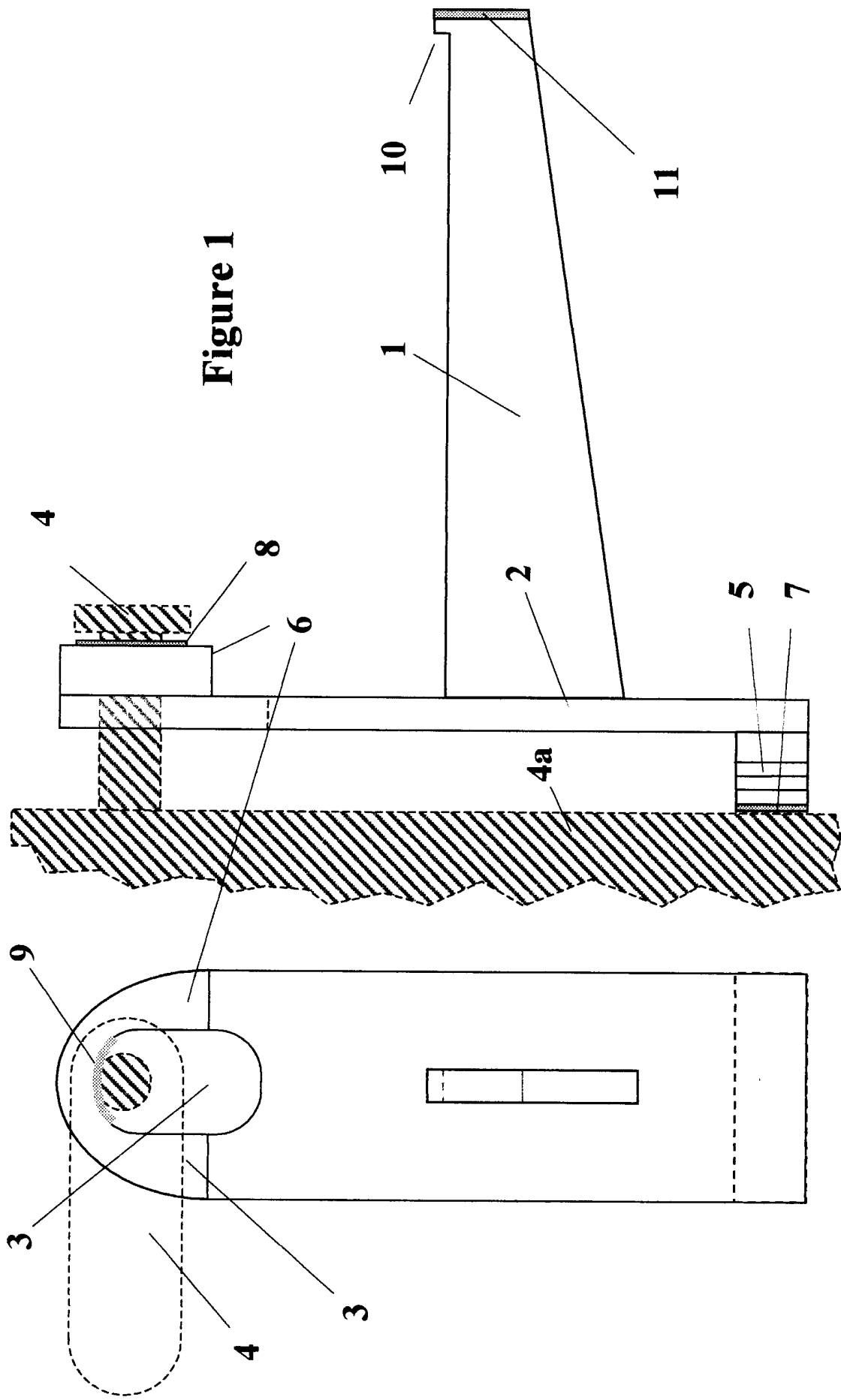


Figure 1

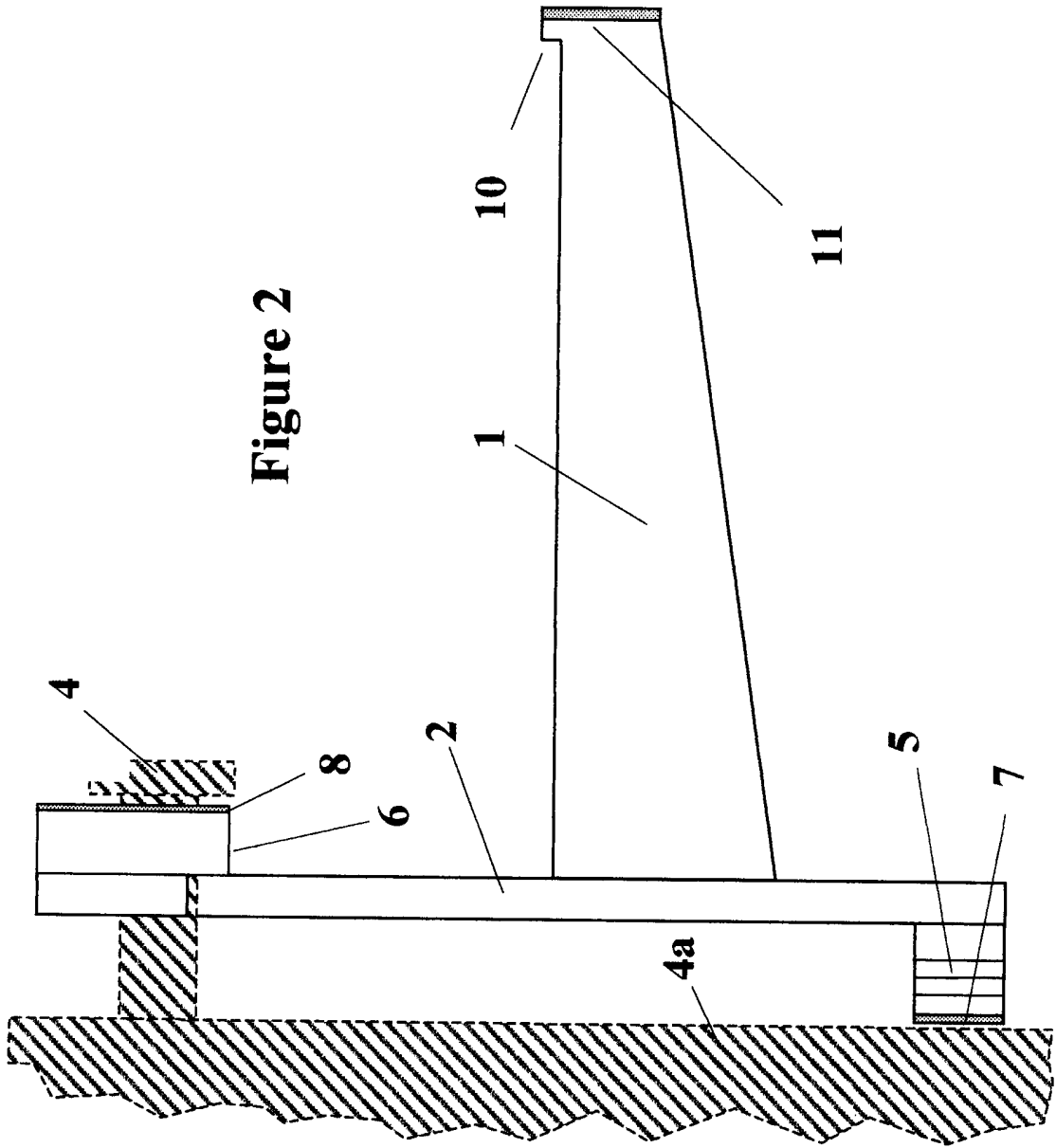
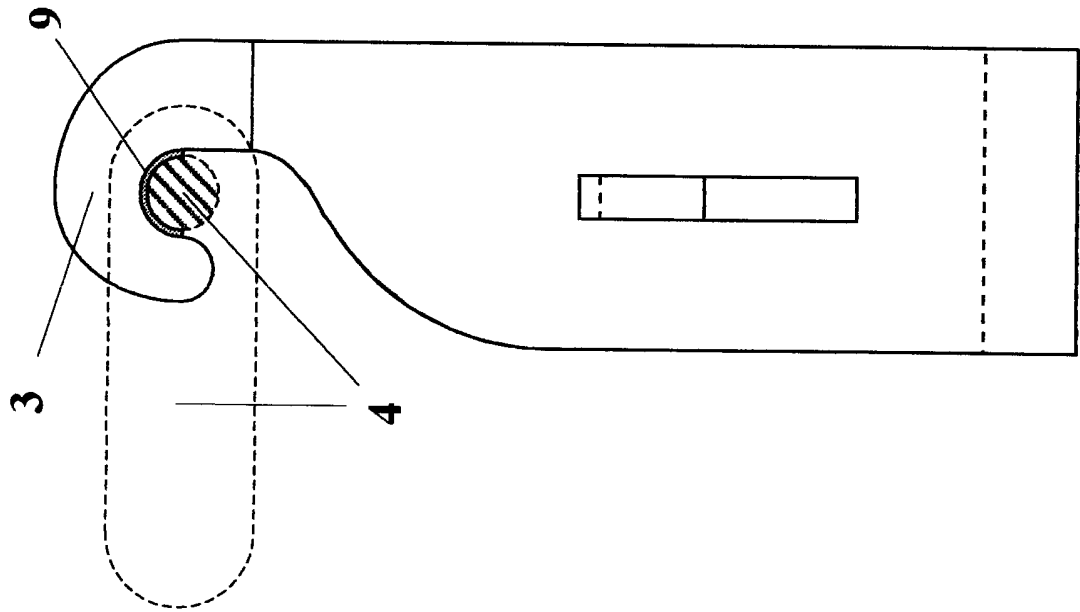
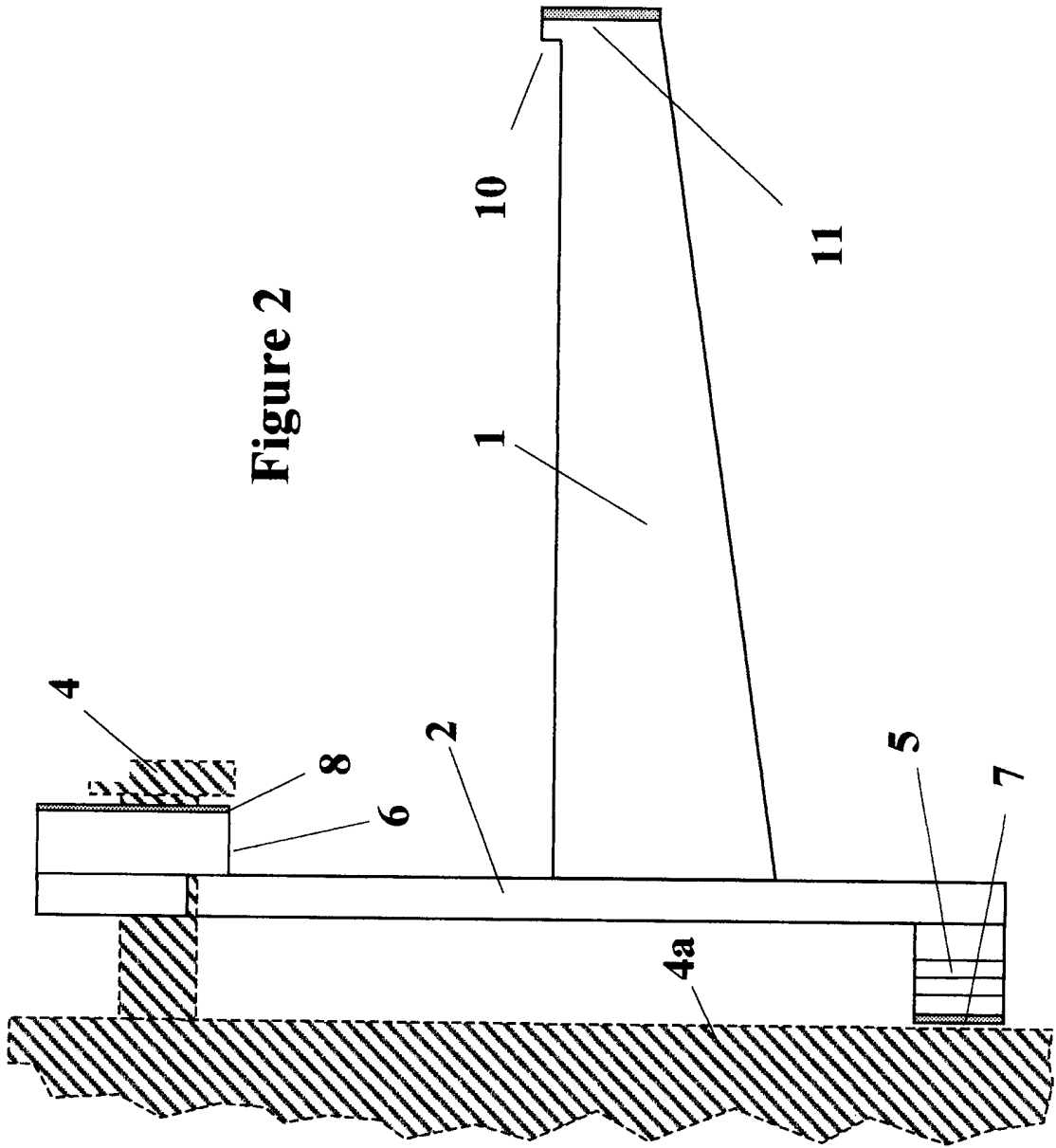
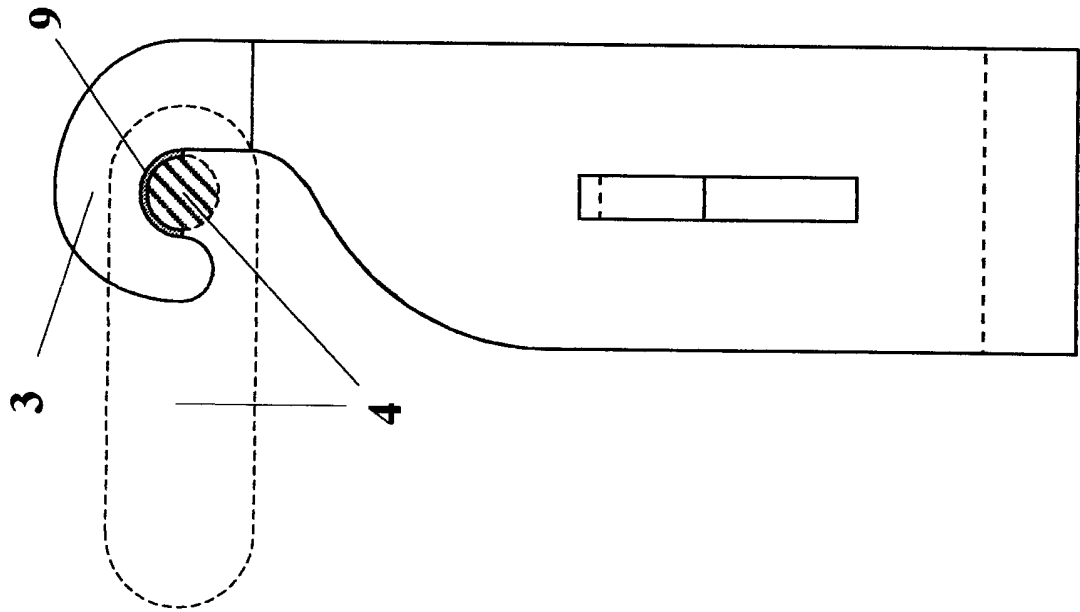
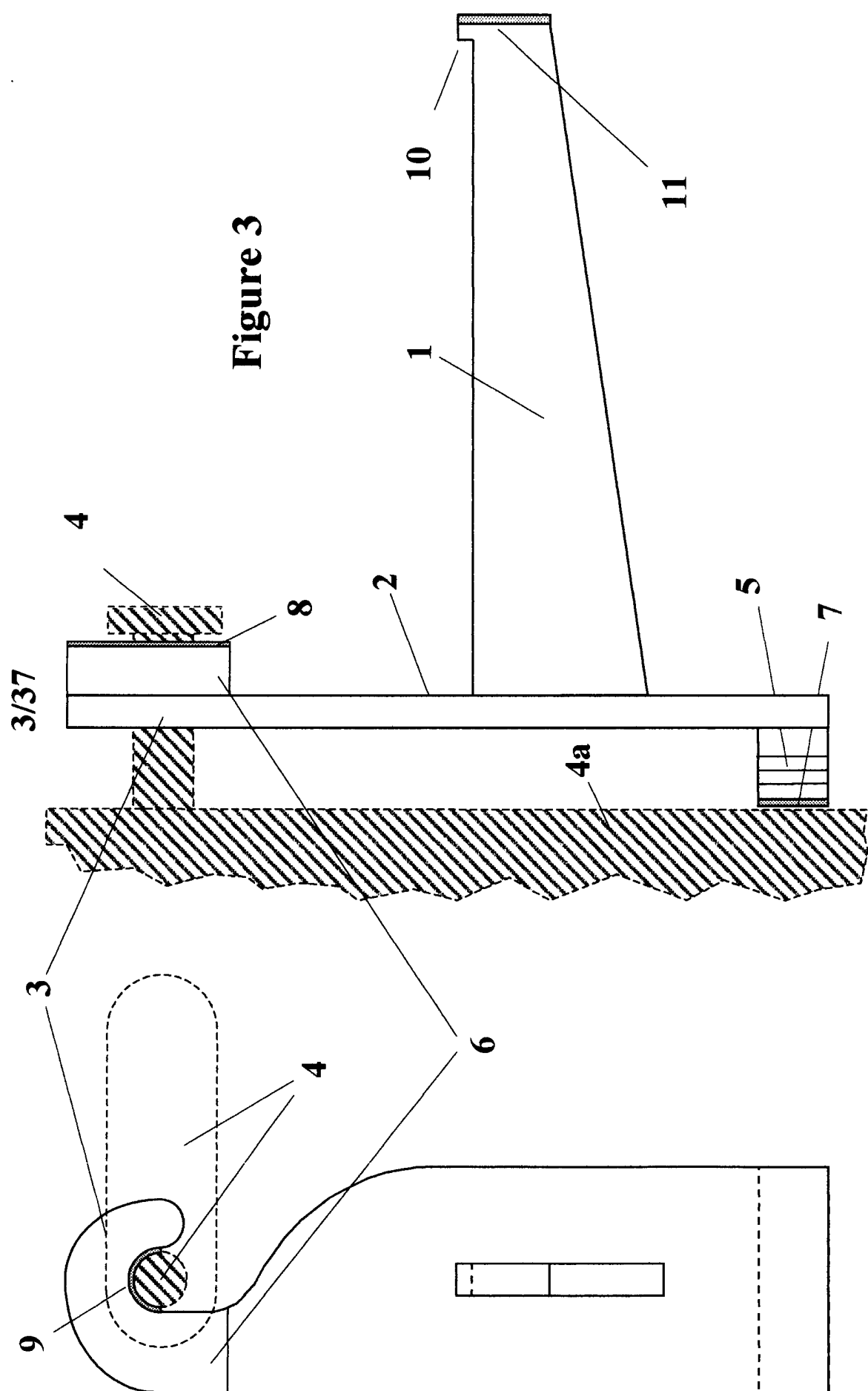


Figure 2





4/37

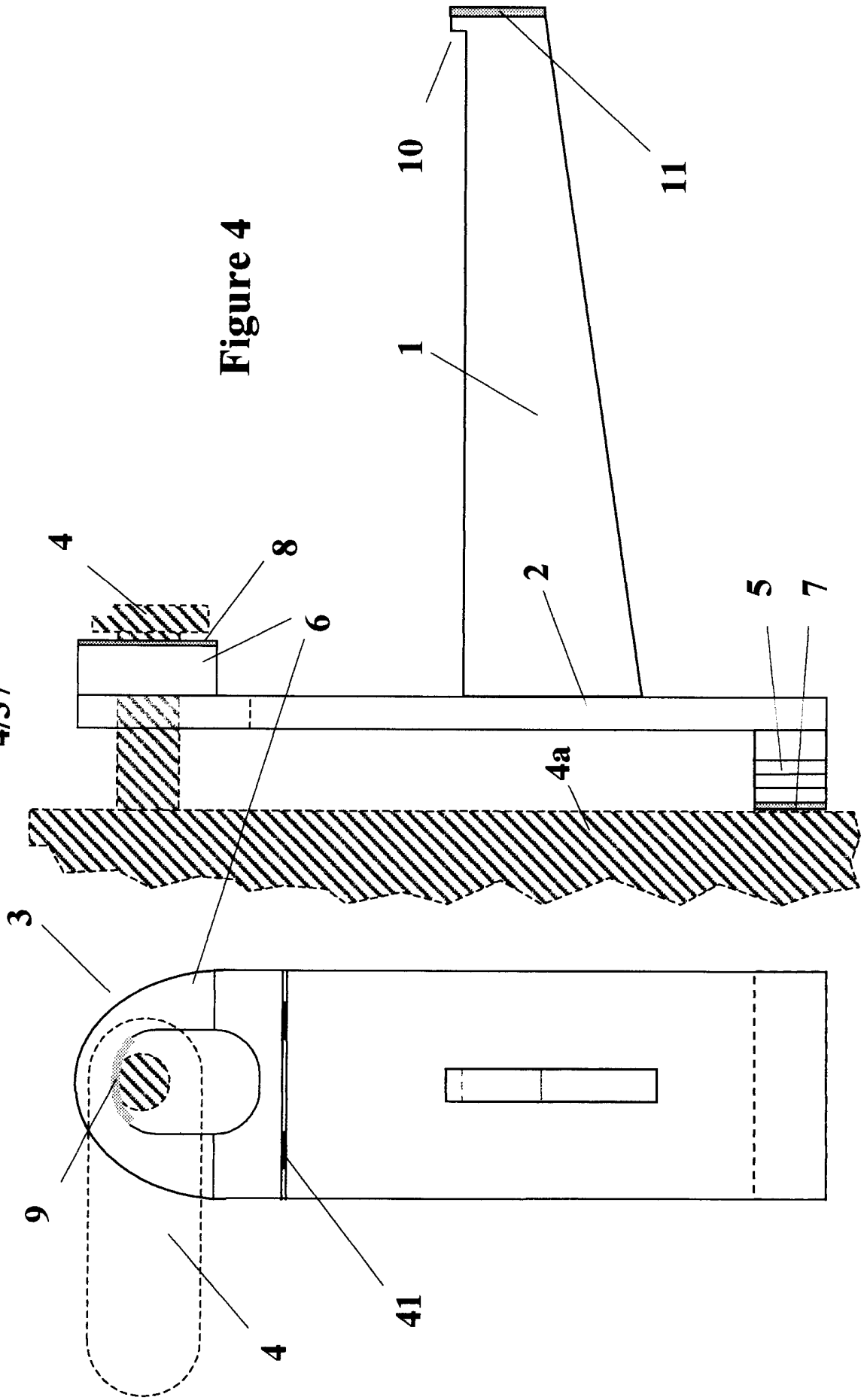
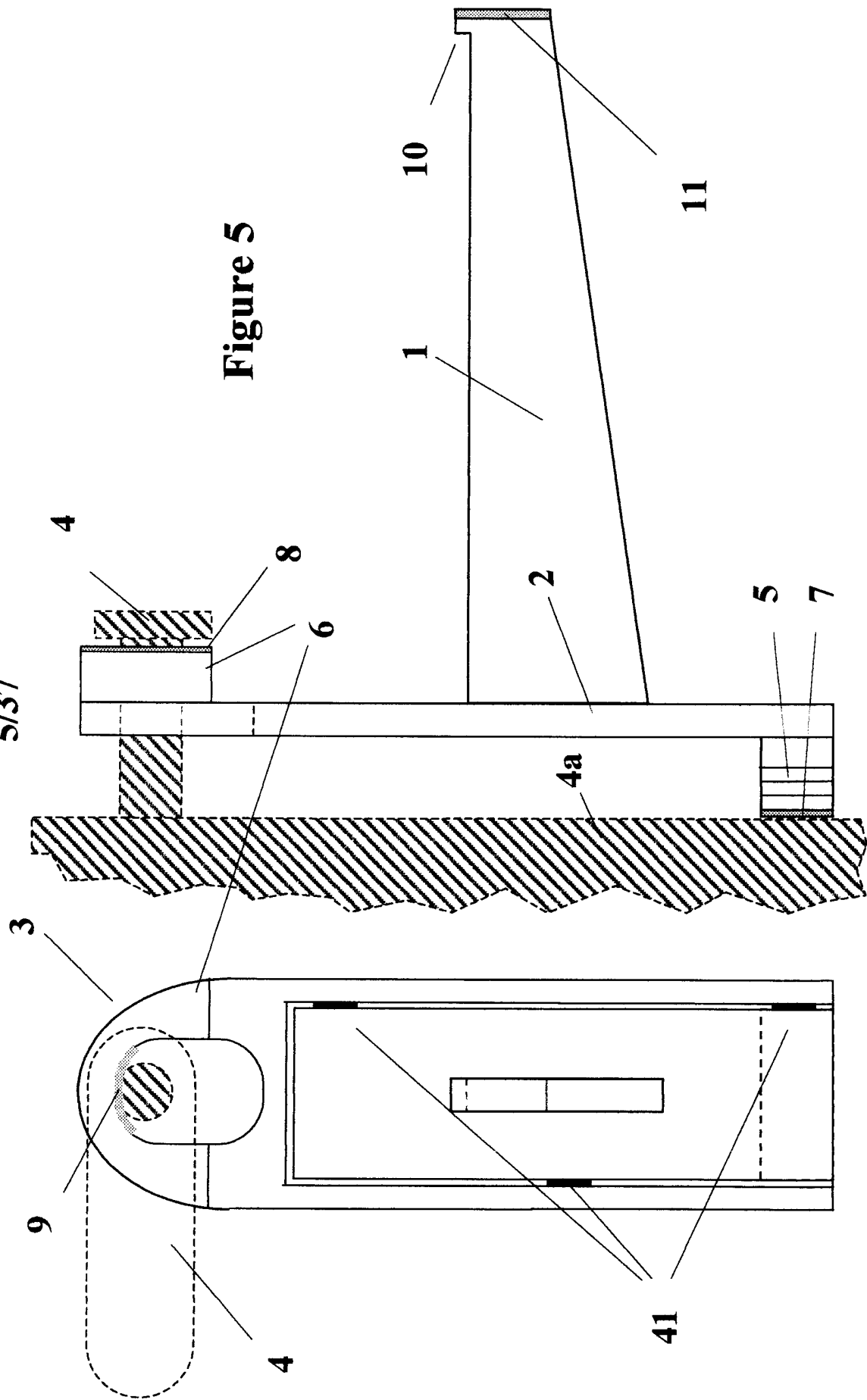


Figure 4

Figure 5



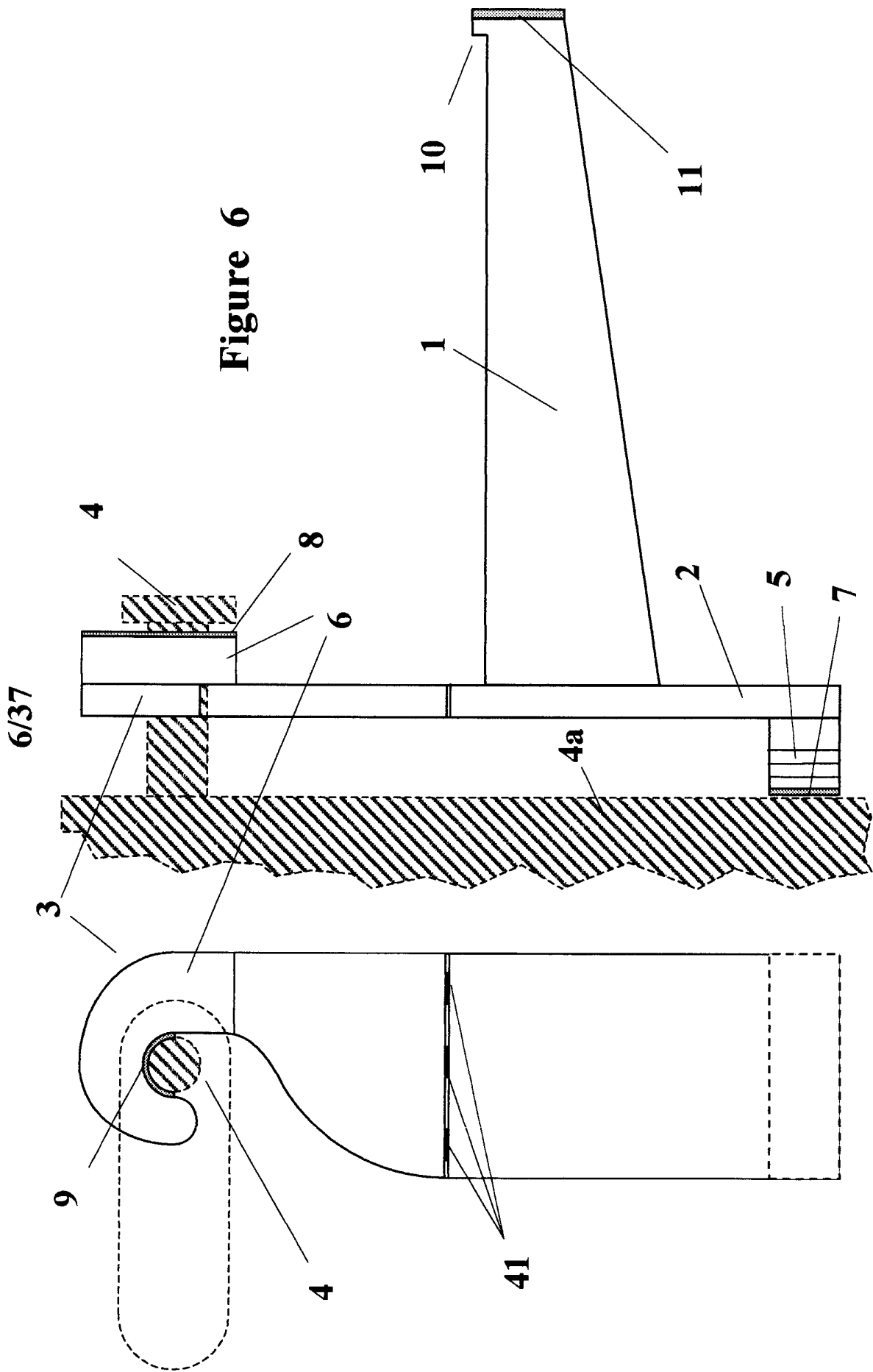
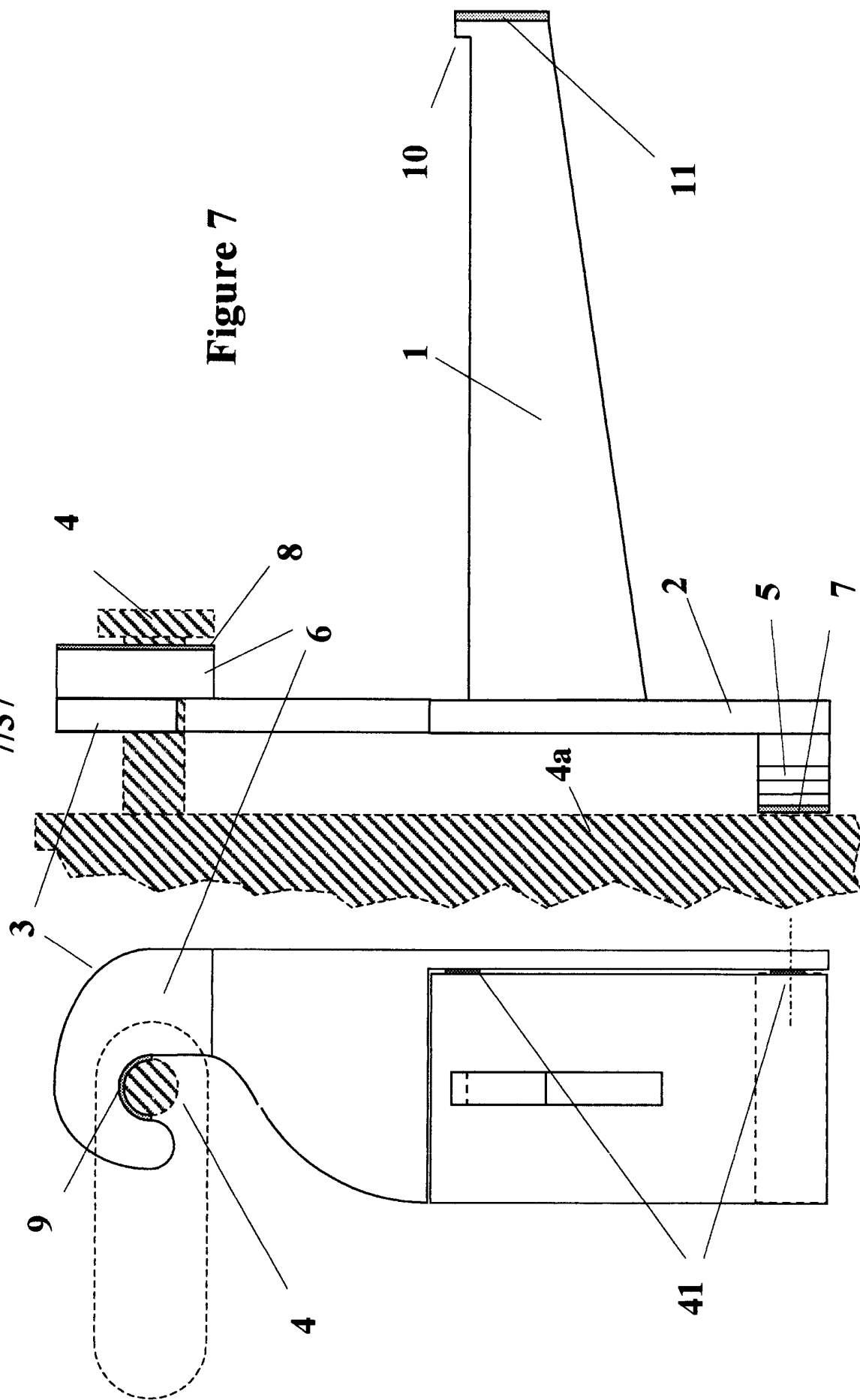


Figure 7



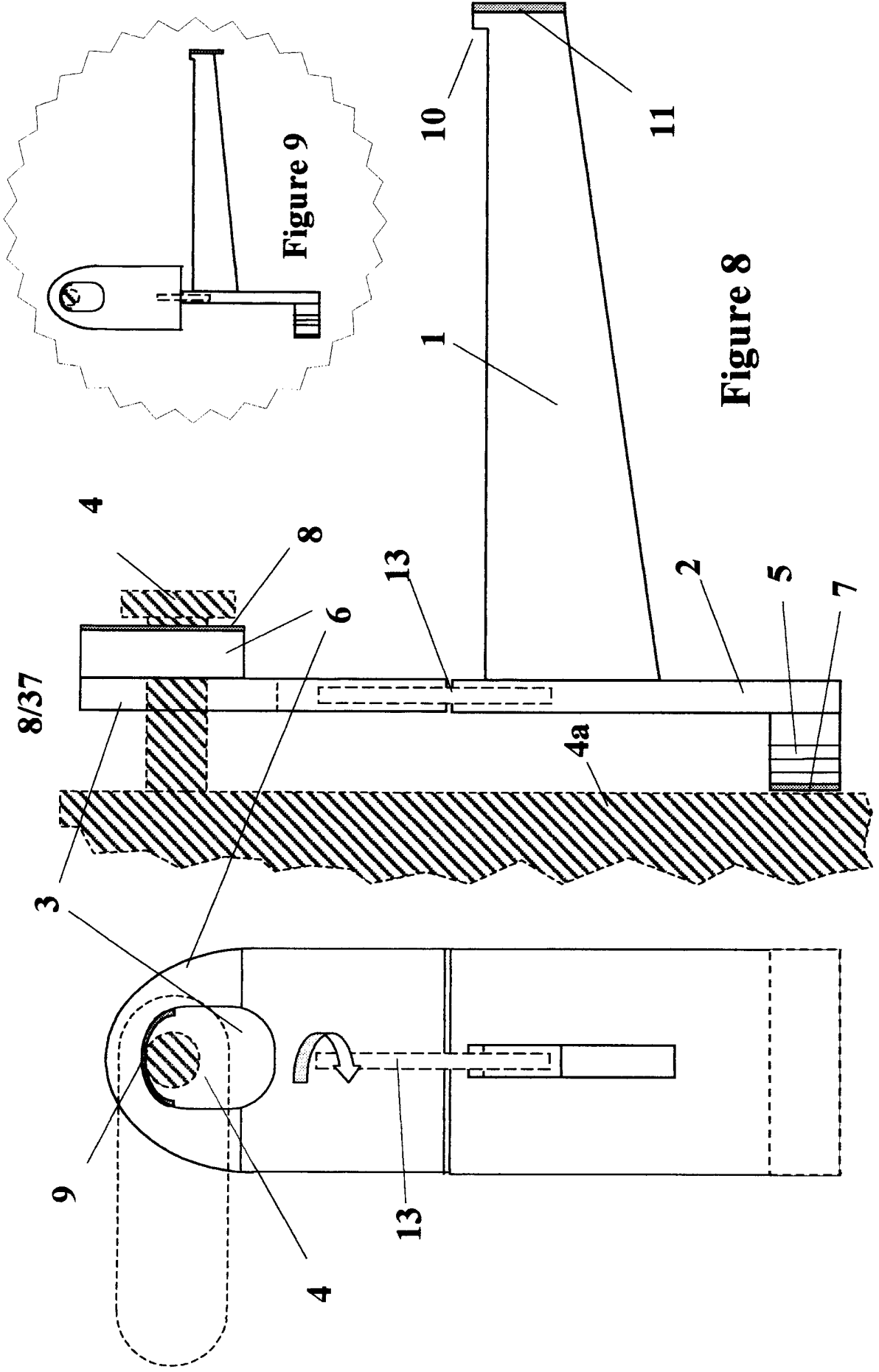


Figure 8

Figure 9

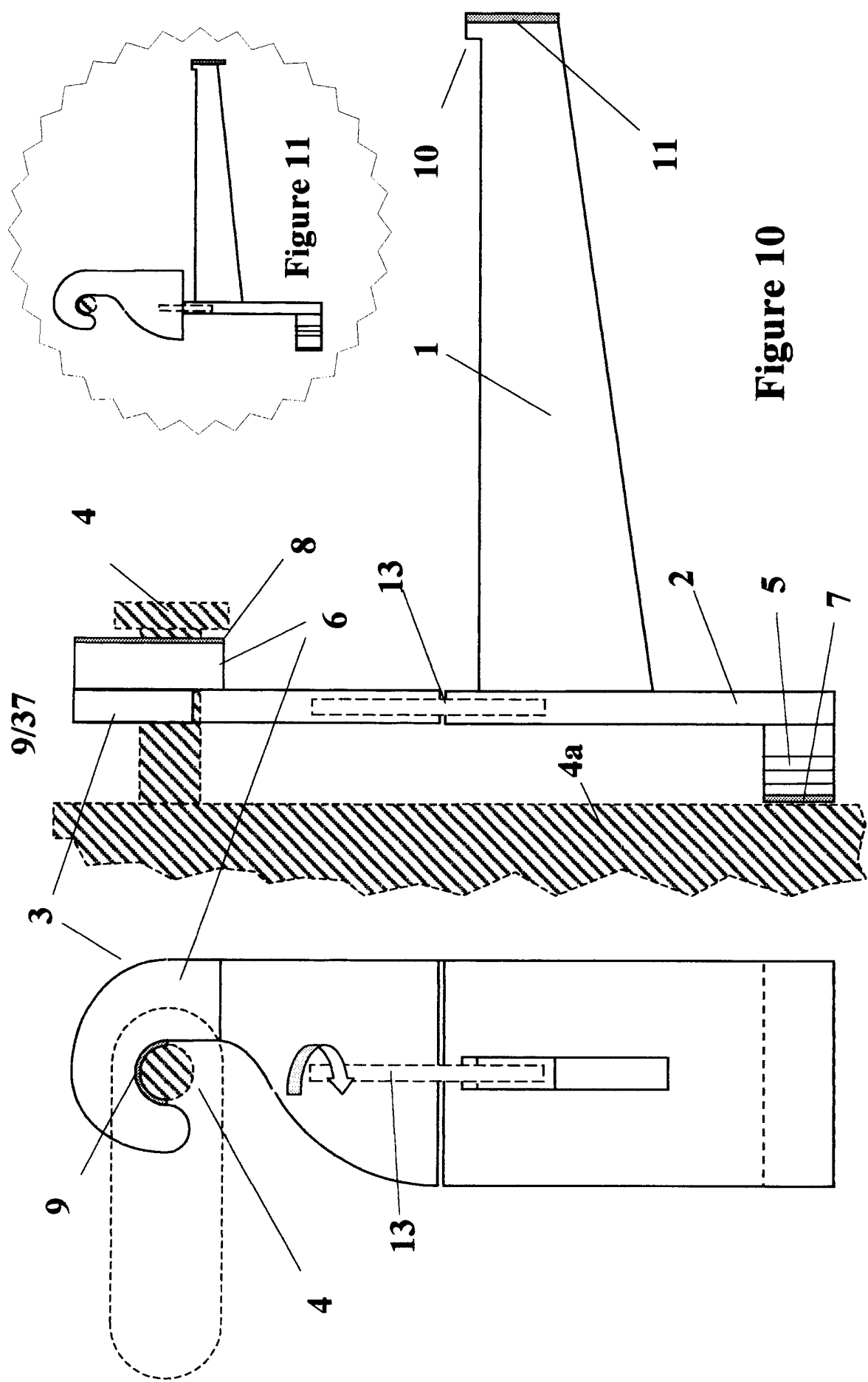
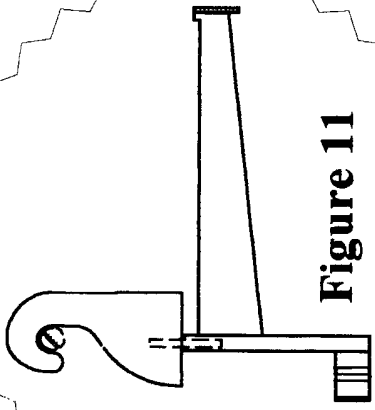


Figure 10

Figure 11



10/37

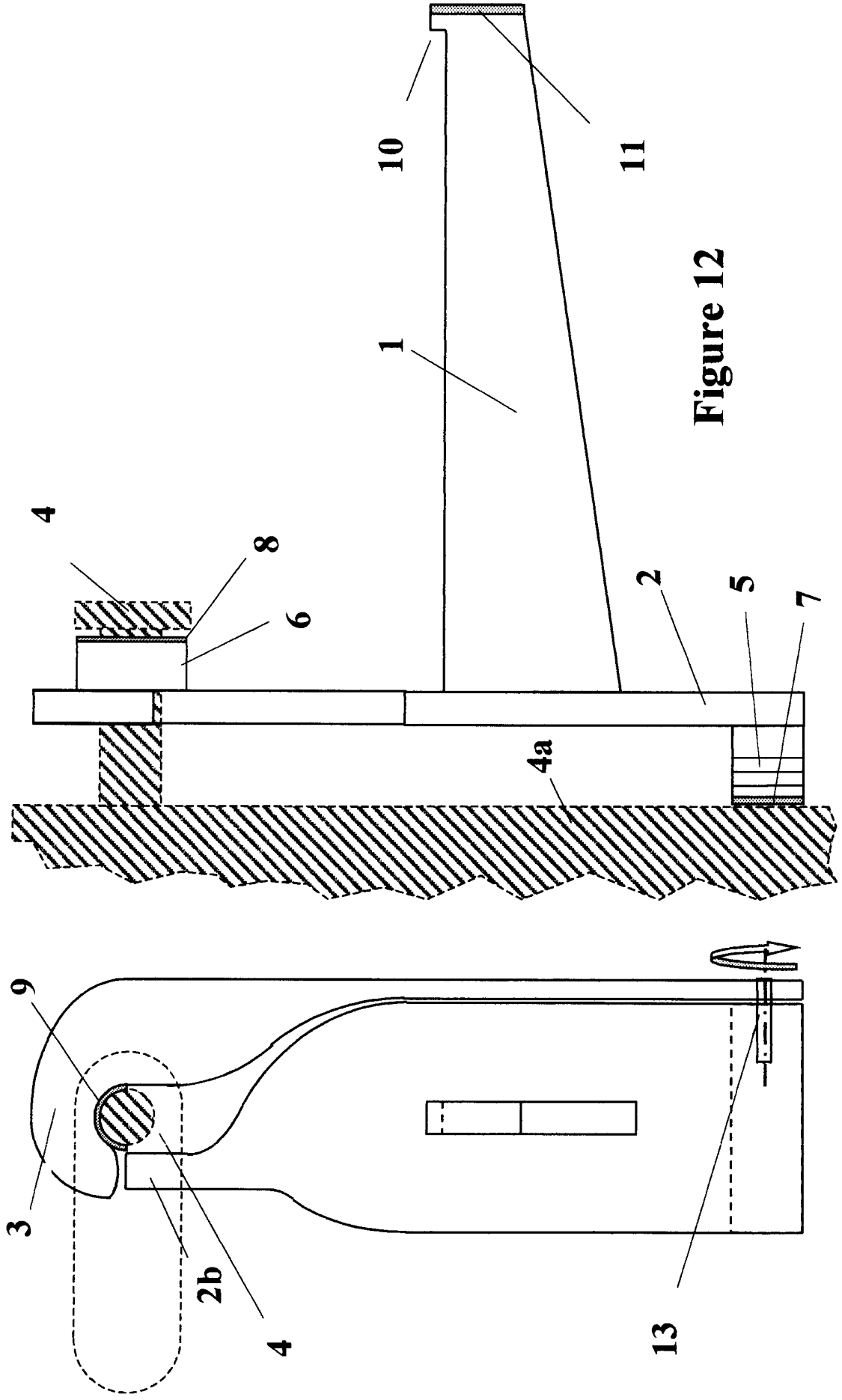


Figure 12

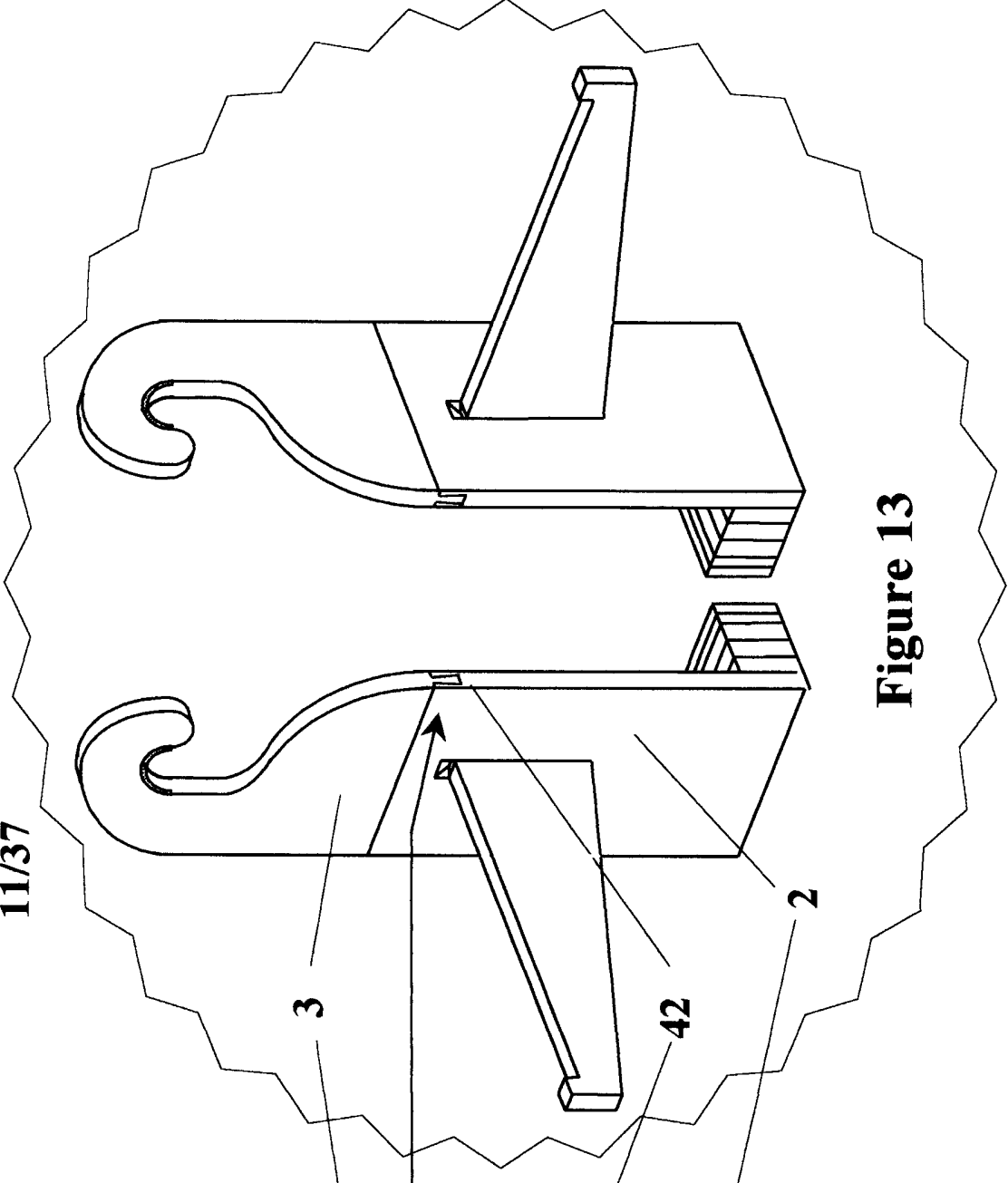


Figure 13

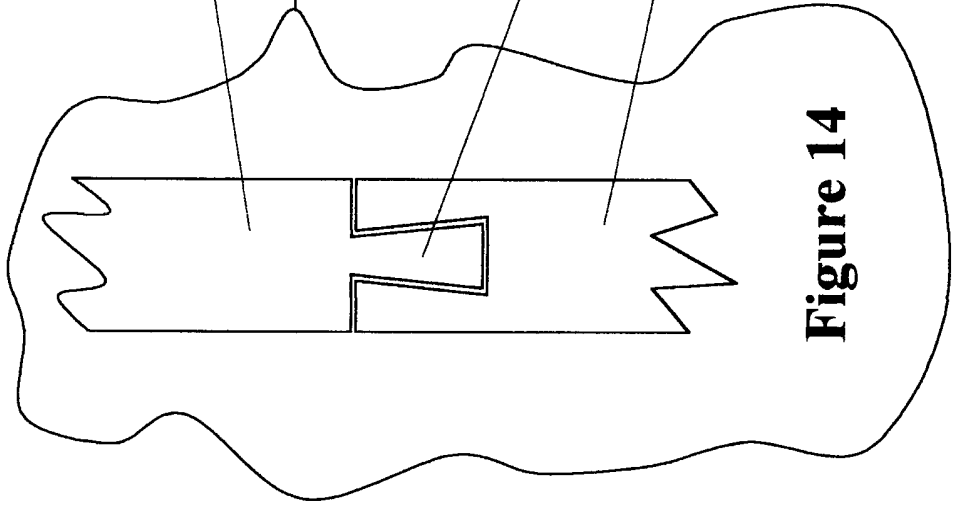


Figure 14

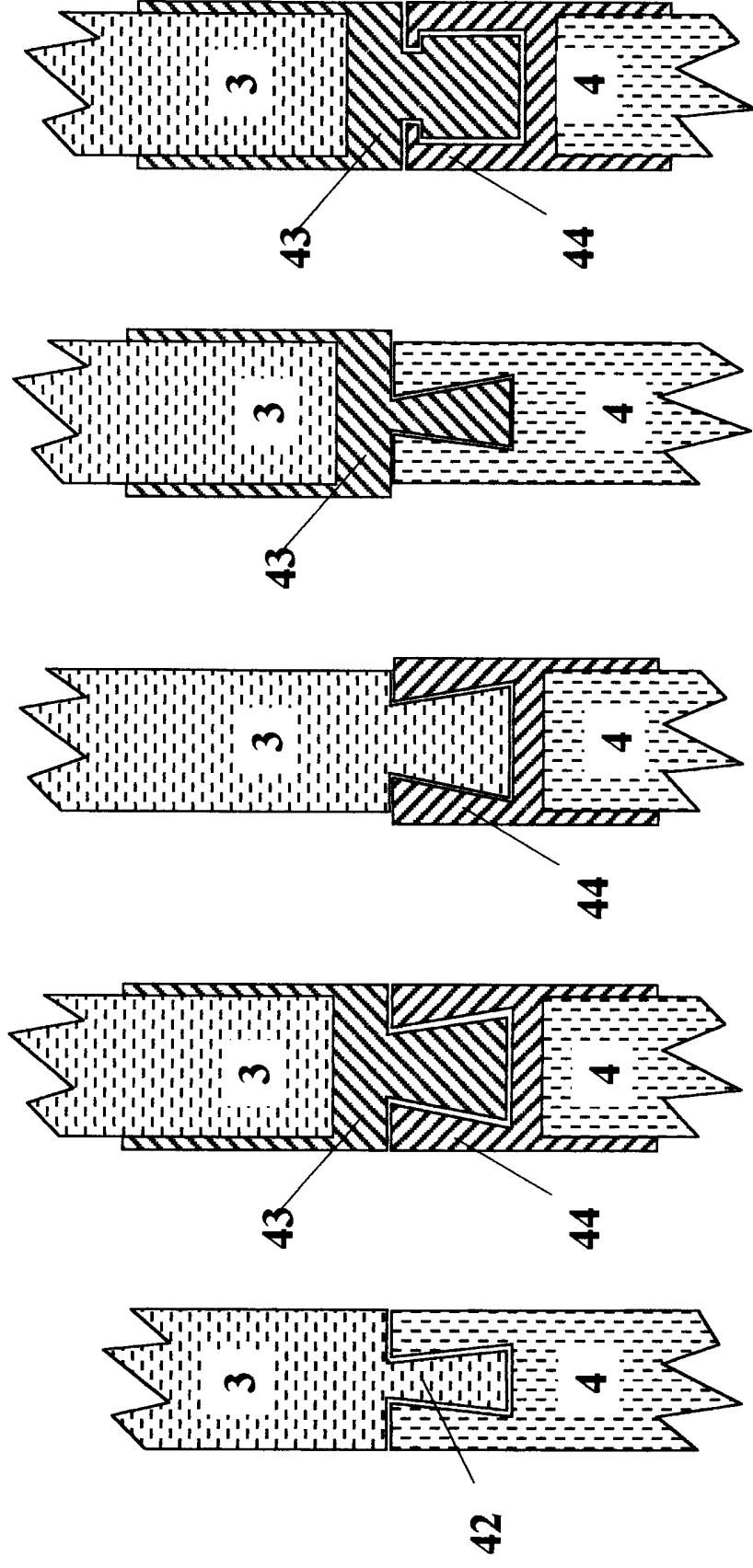
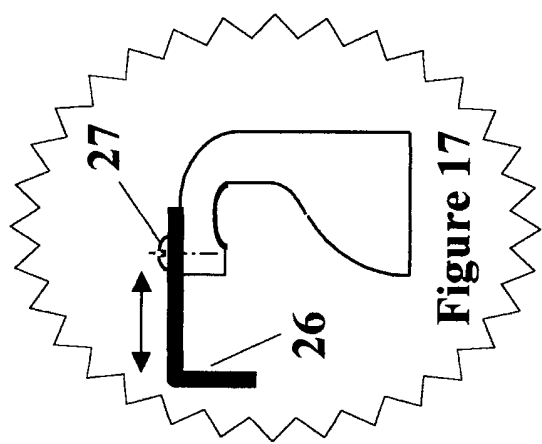
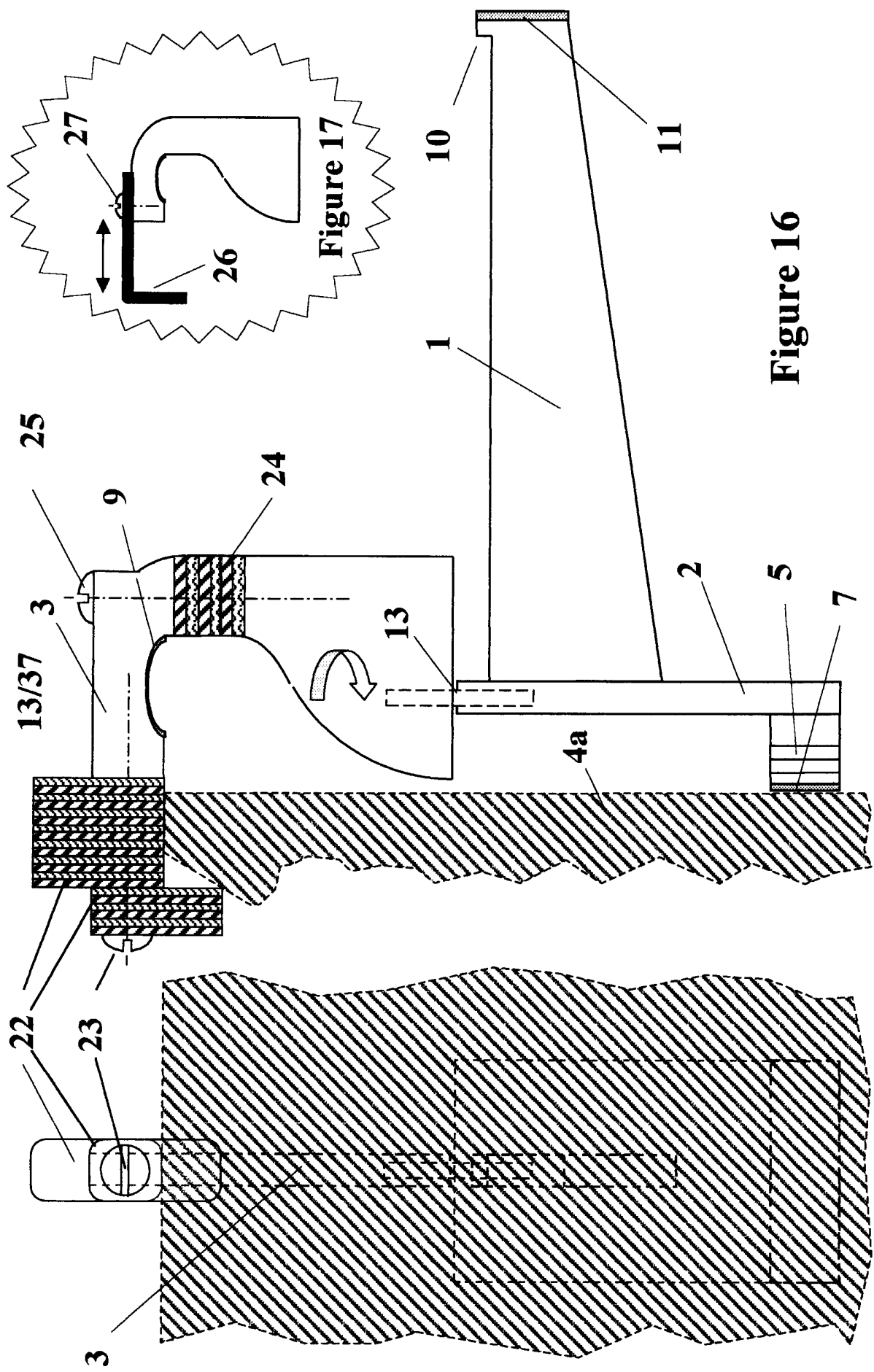


Figure 15



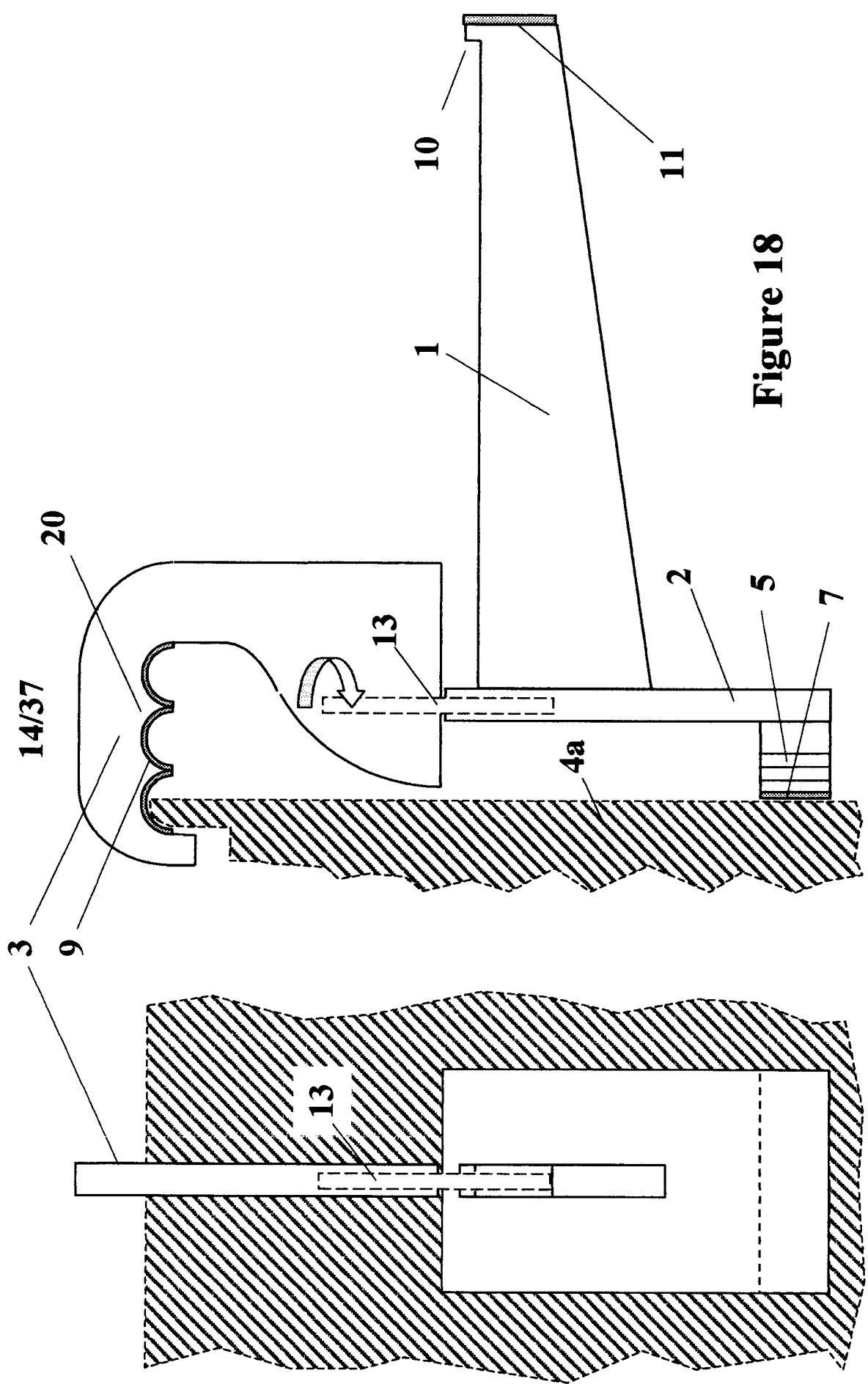


Figure 18

Figure 19

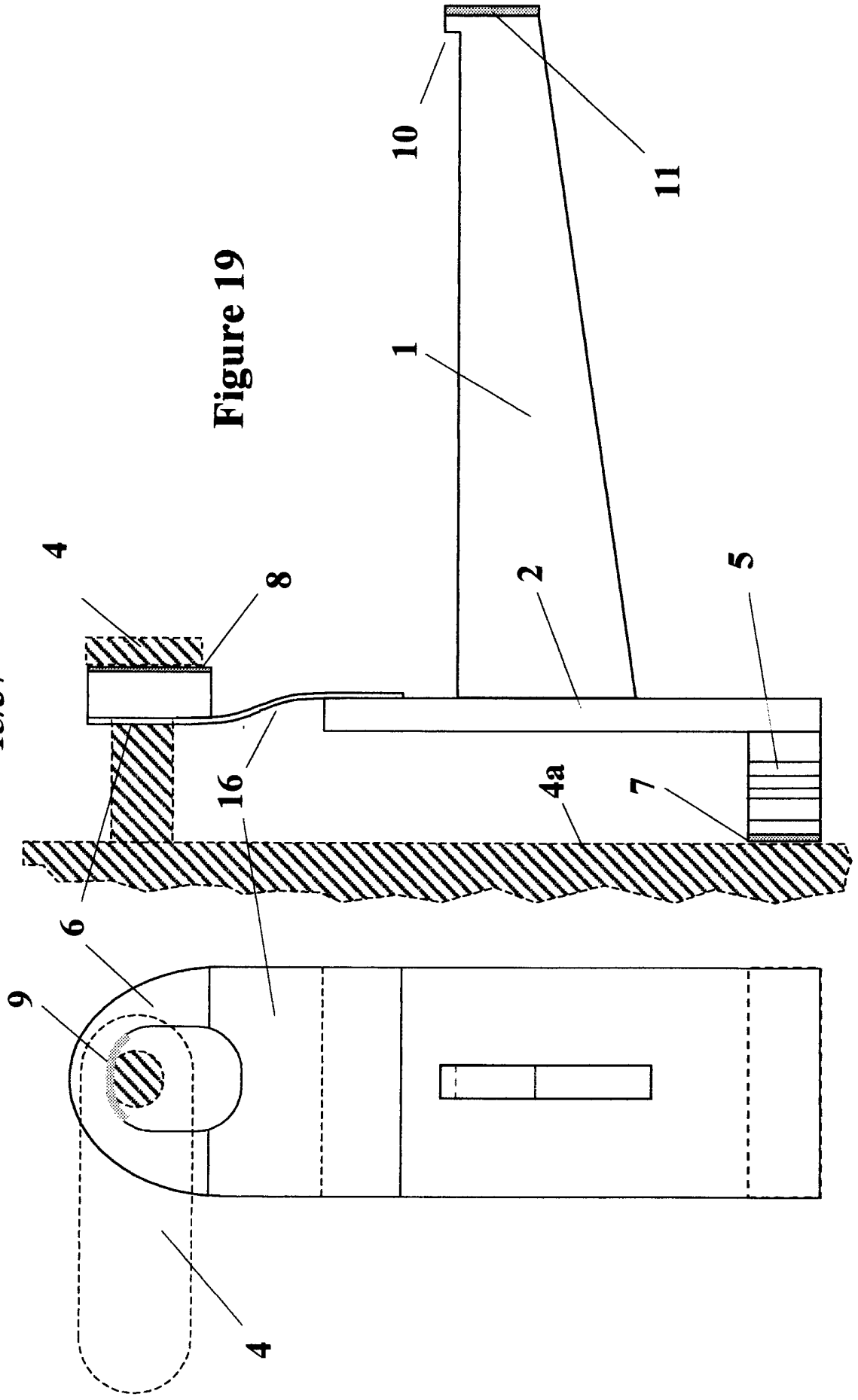
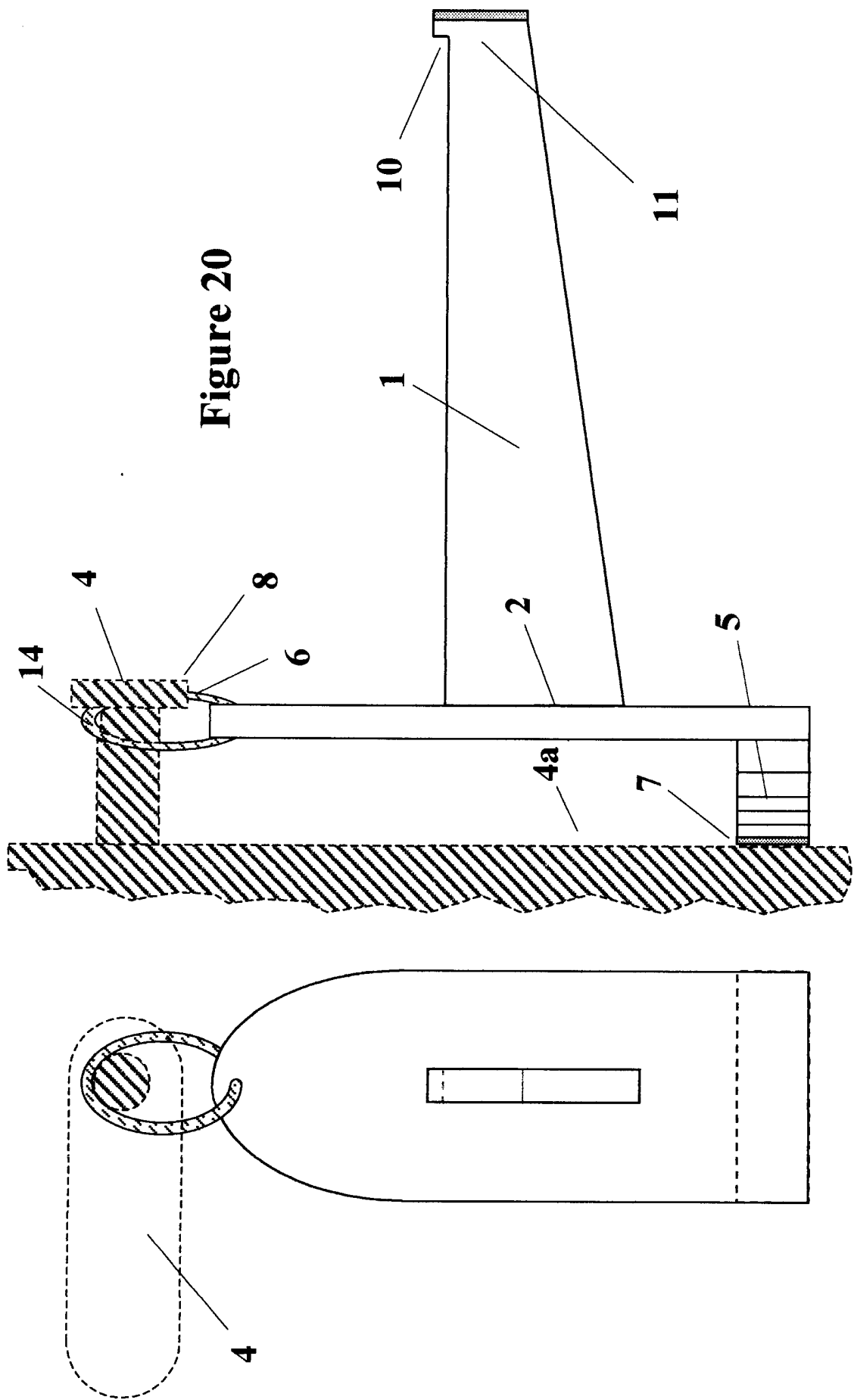


Figure 20



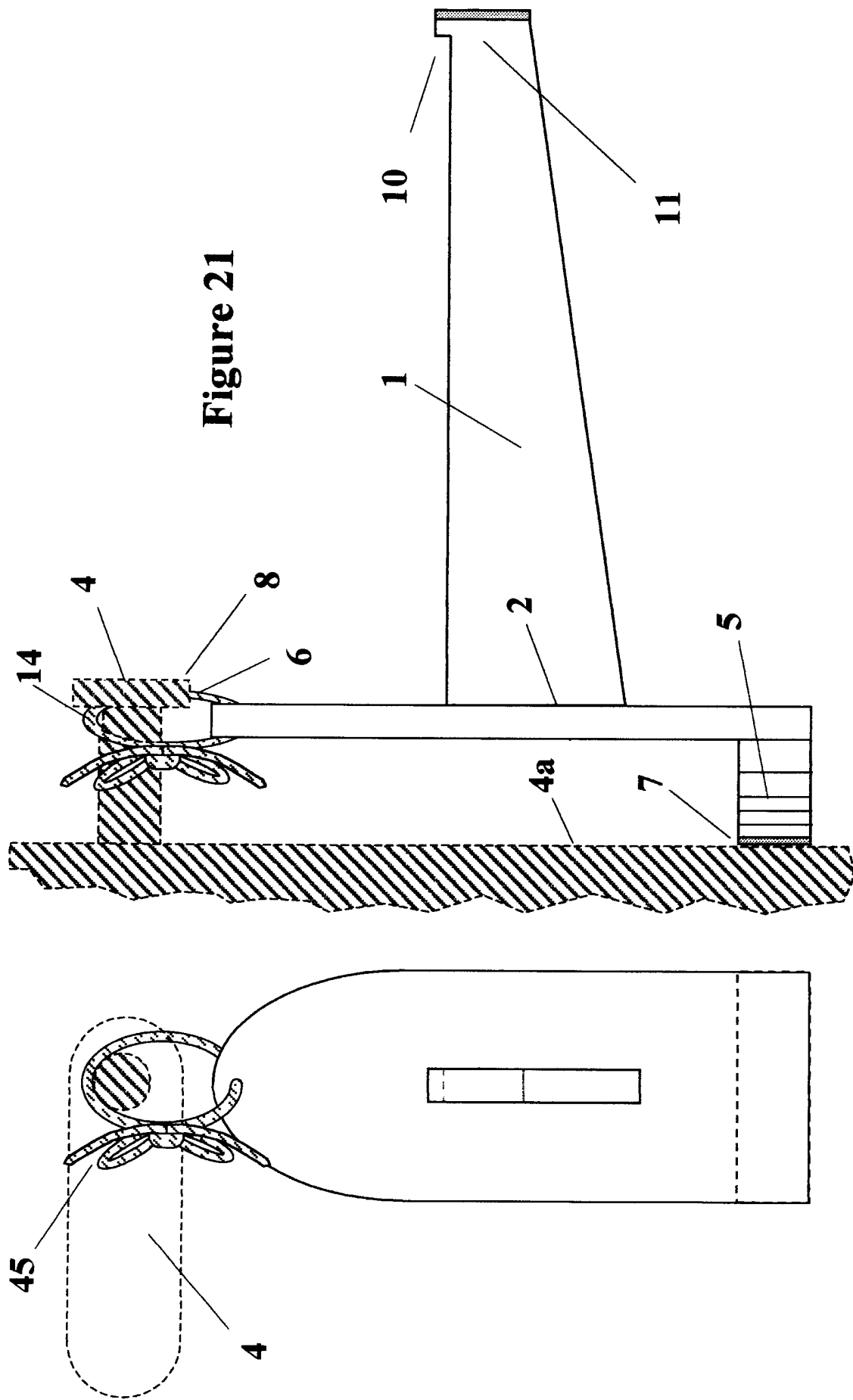
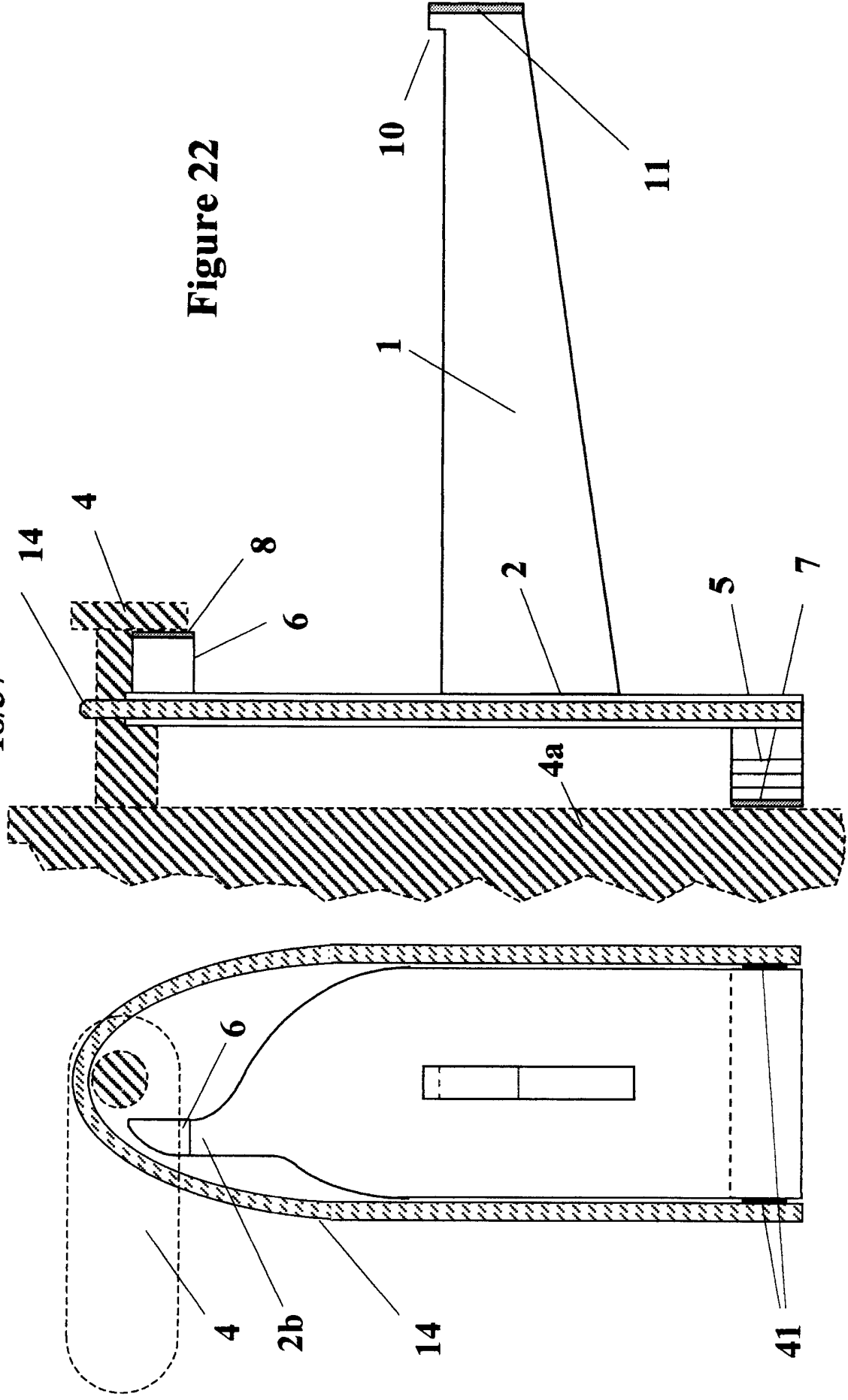
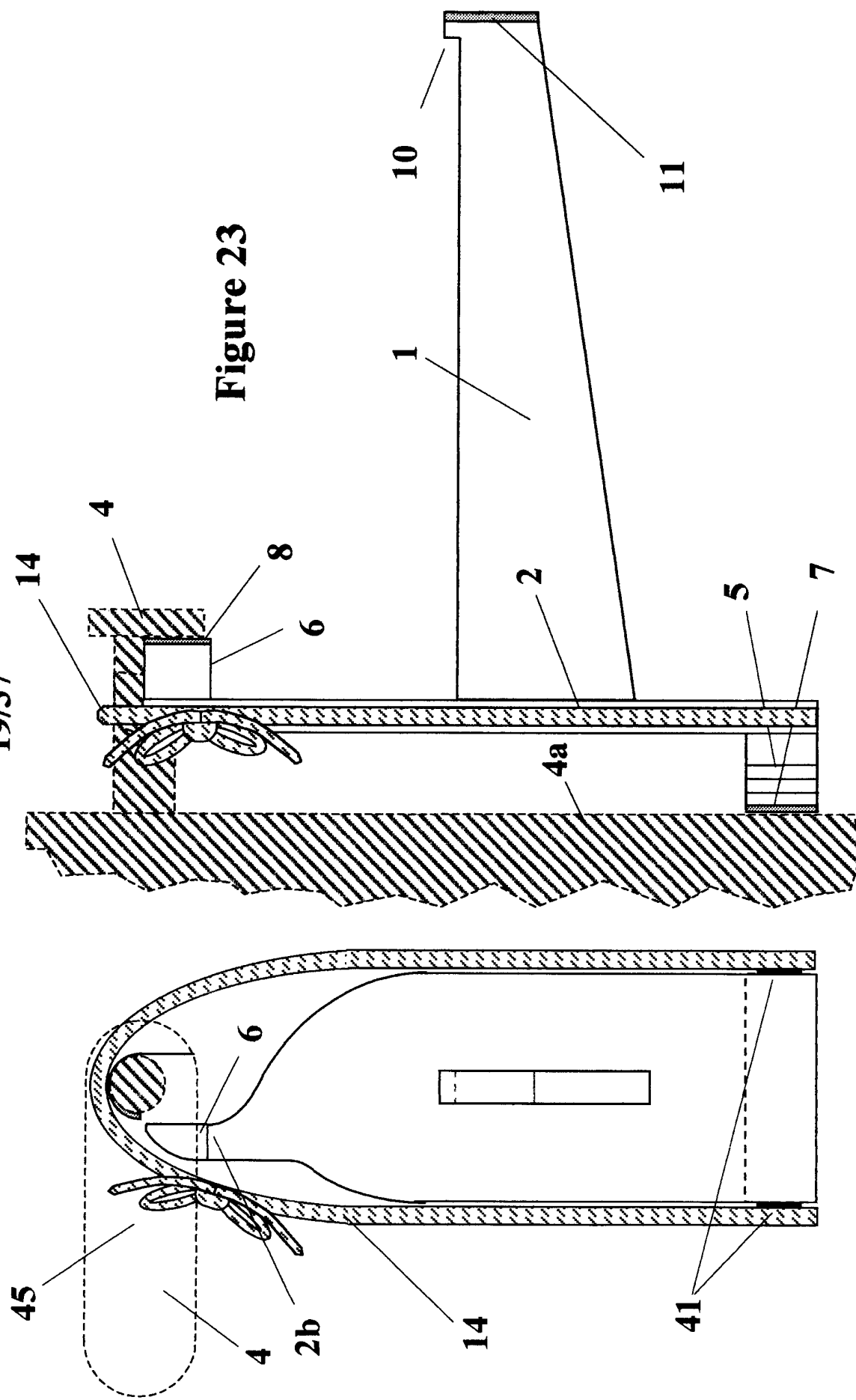


Figure 21

Figure 22





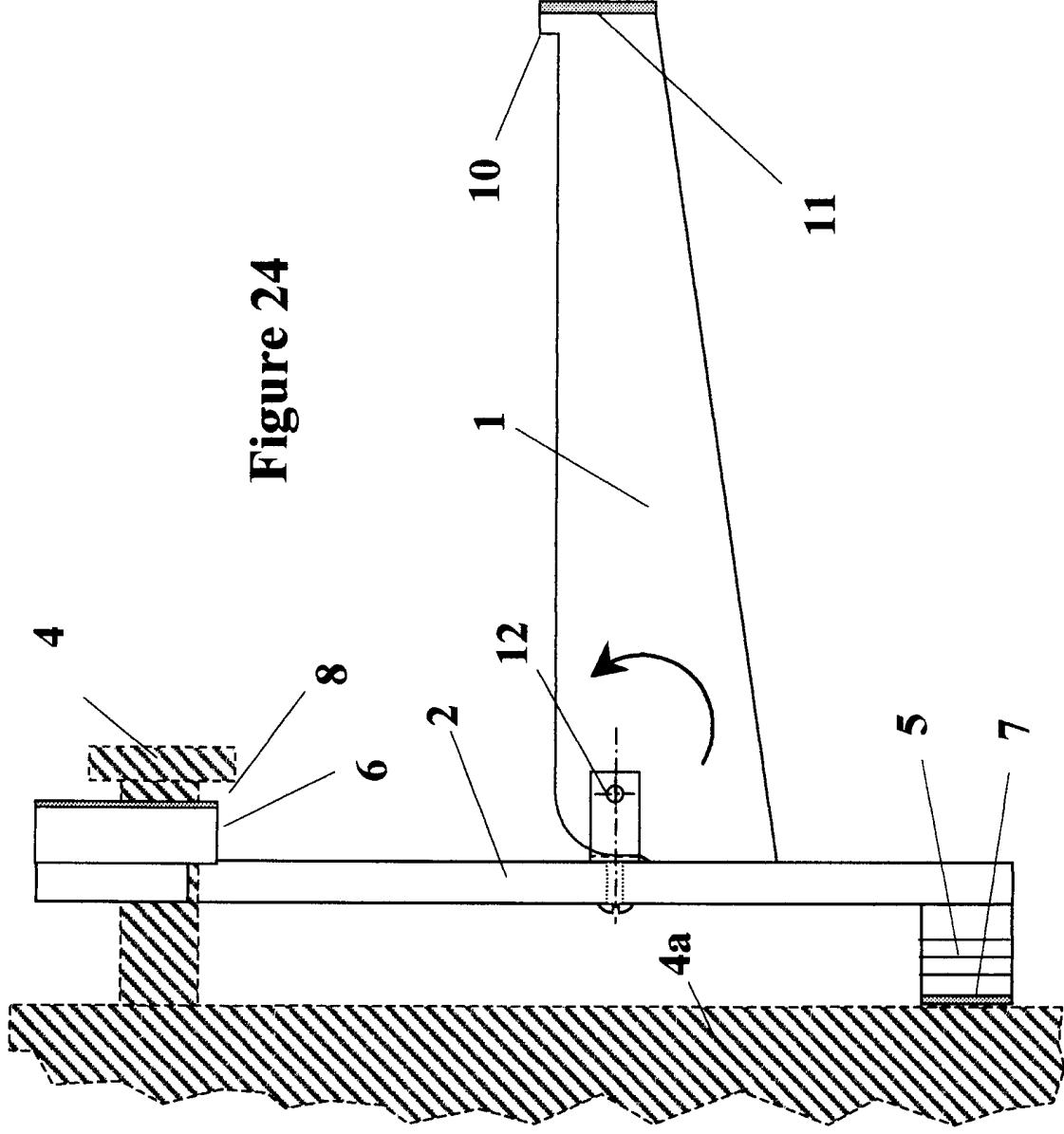
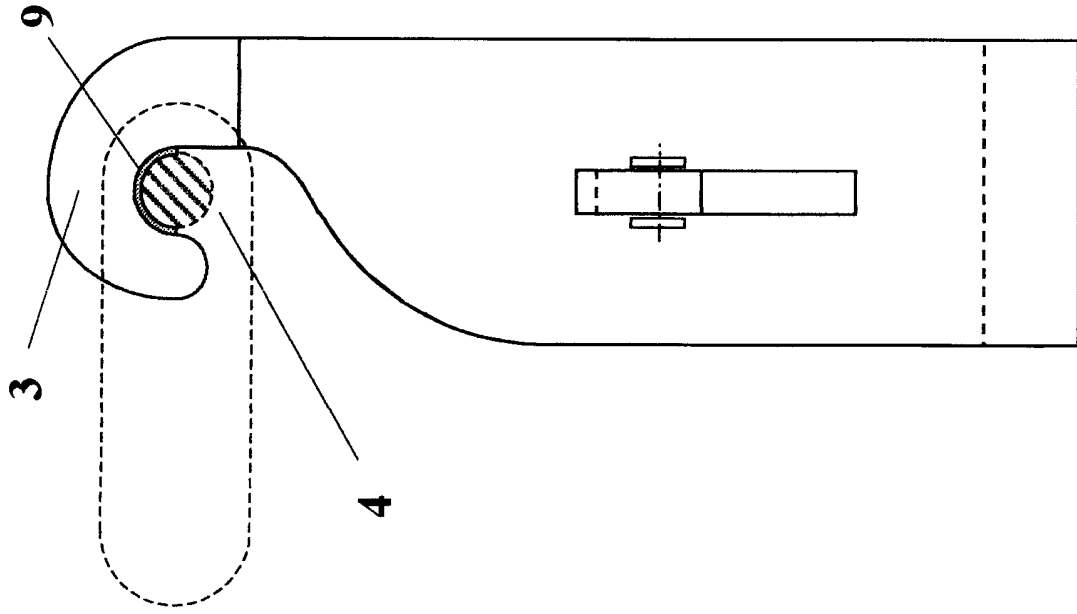
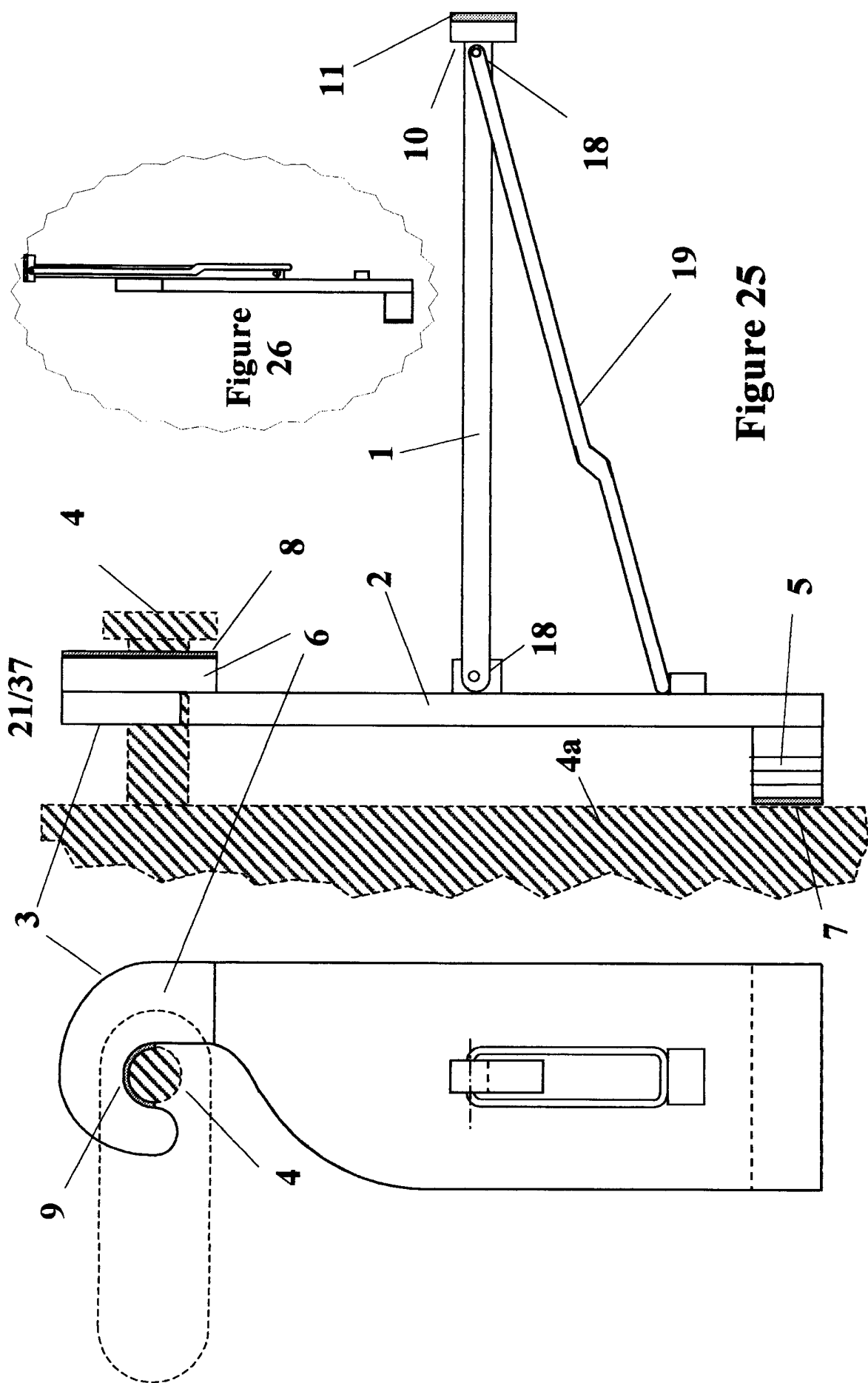


Figure 24



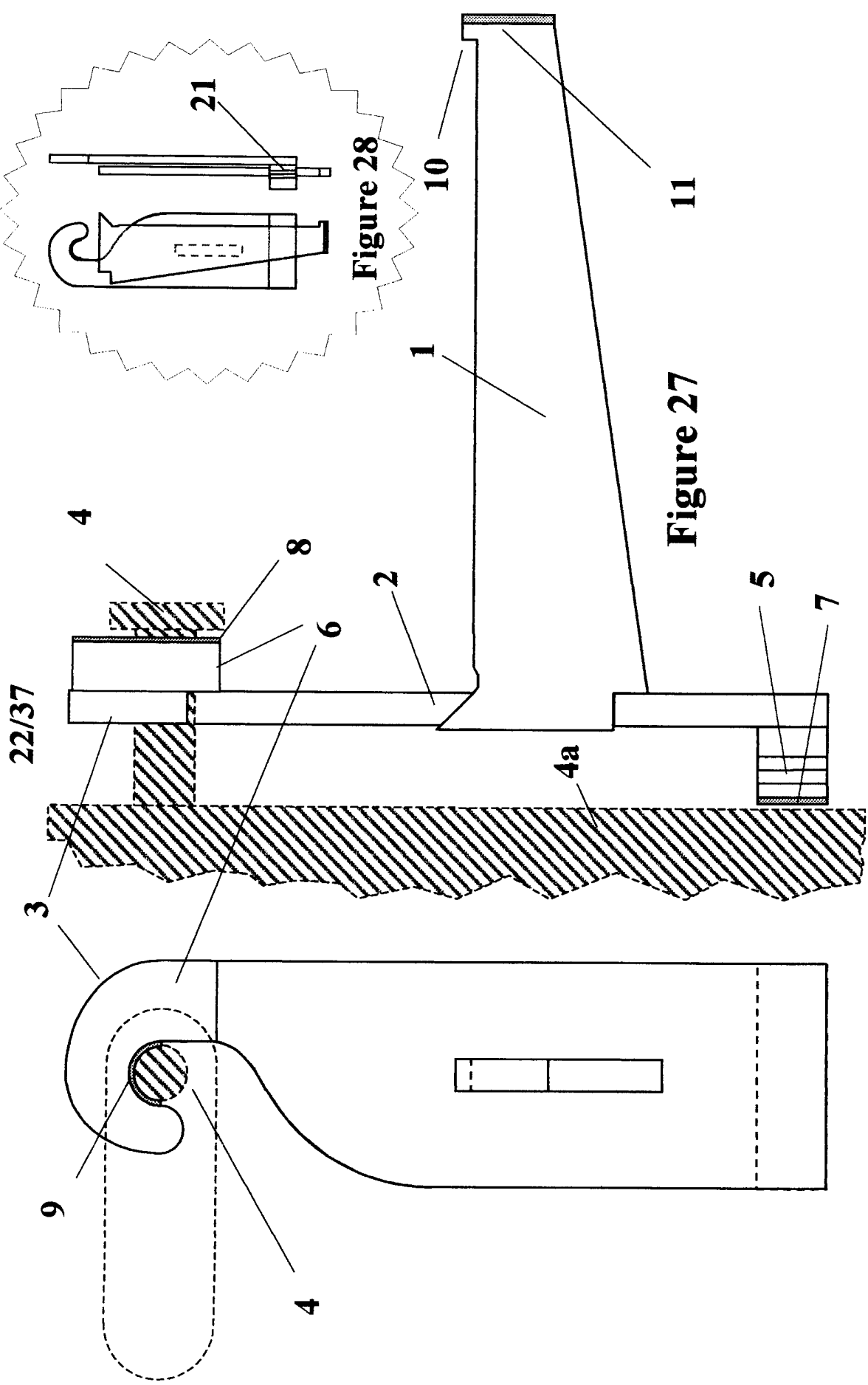


Figure 27

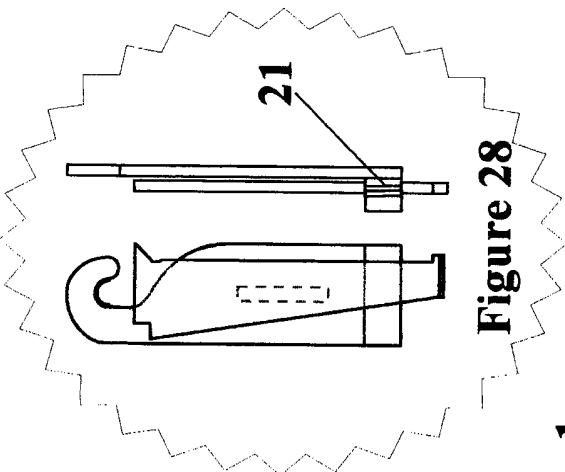


Figure 28

22/37

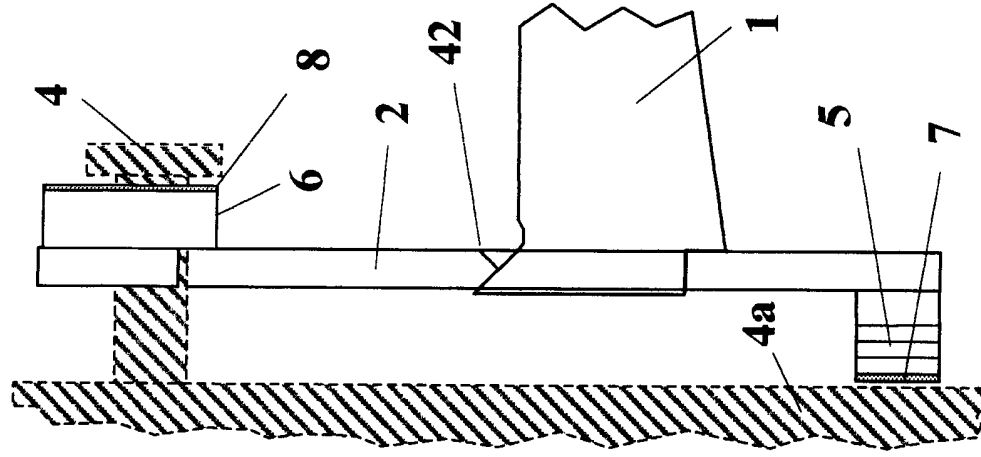


Figure 29

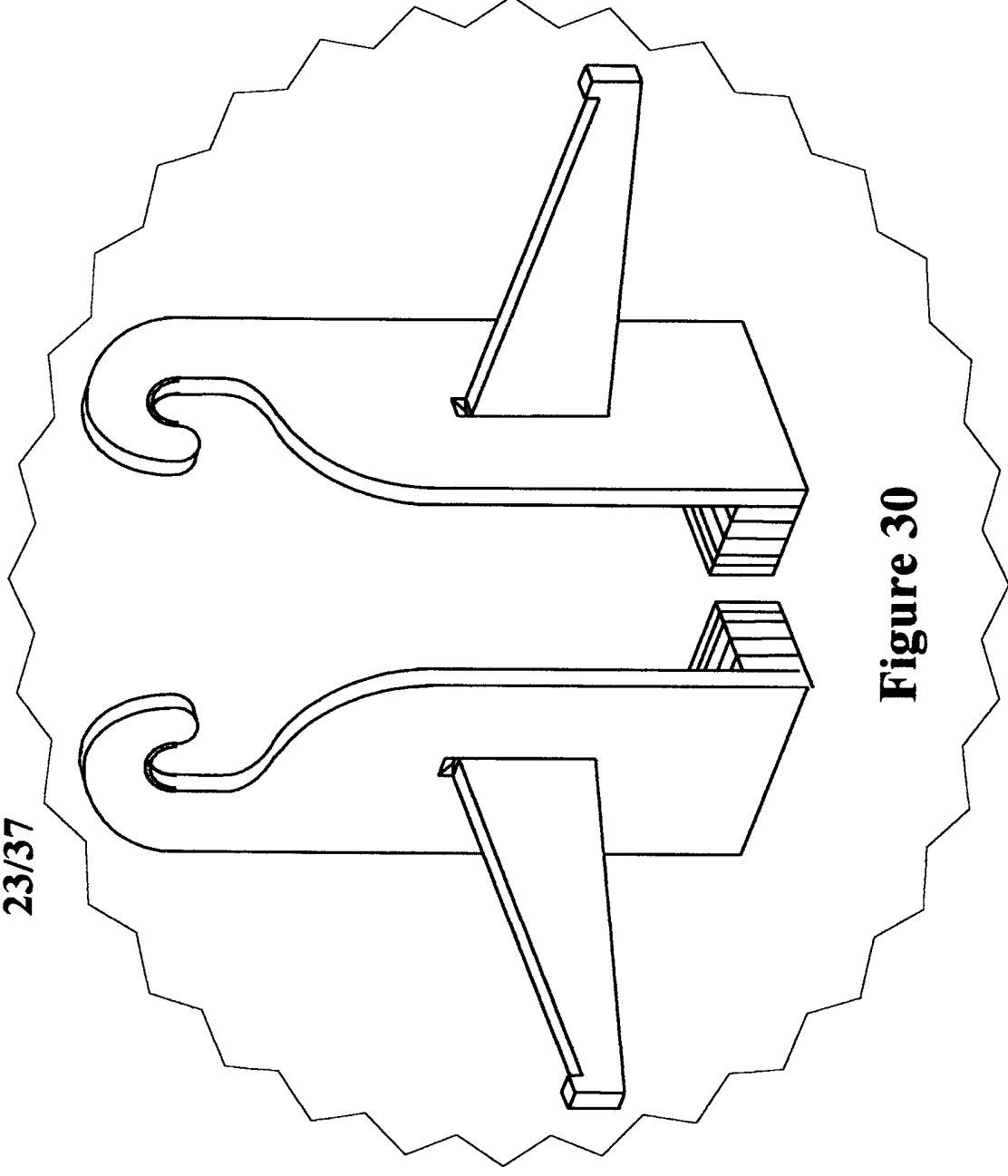


Figure 30

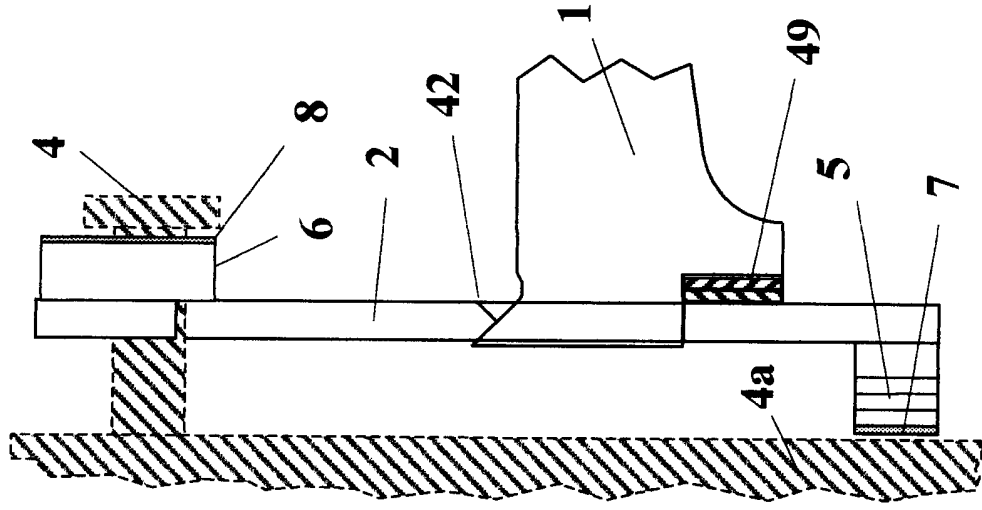


Figure 31

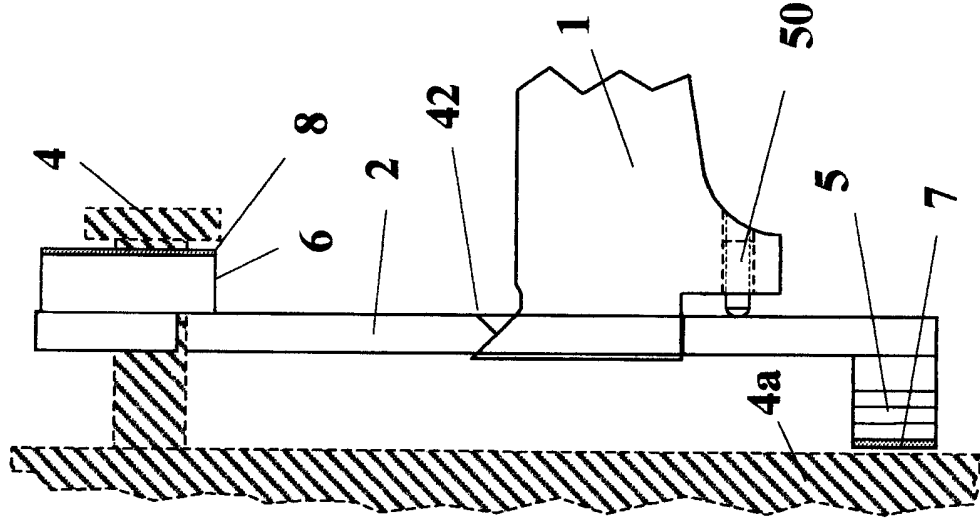


Figure 32

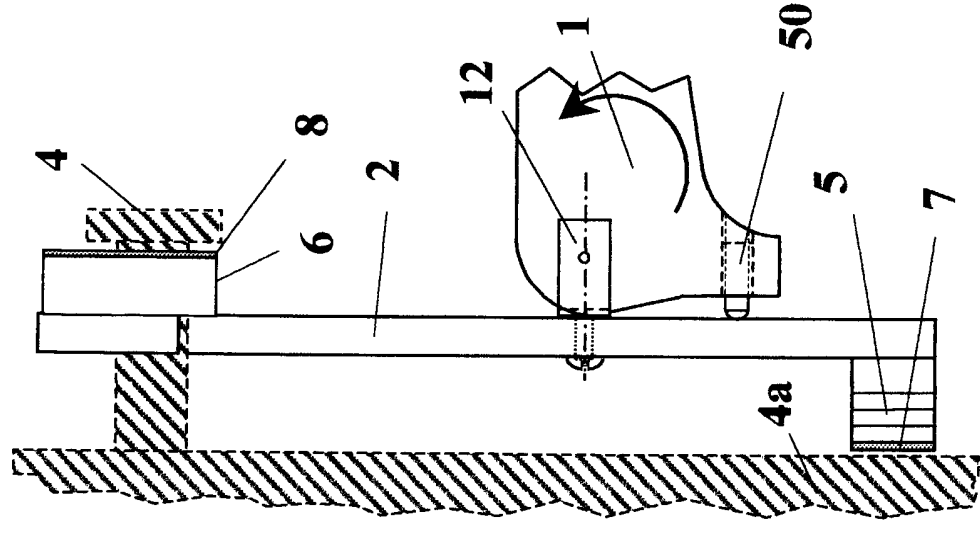


Figure 33

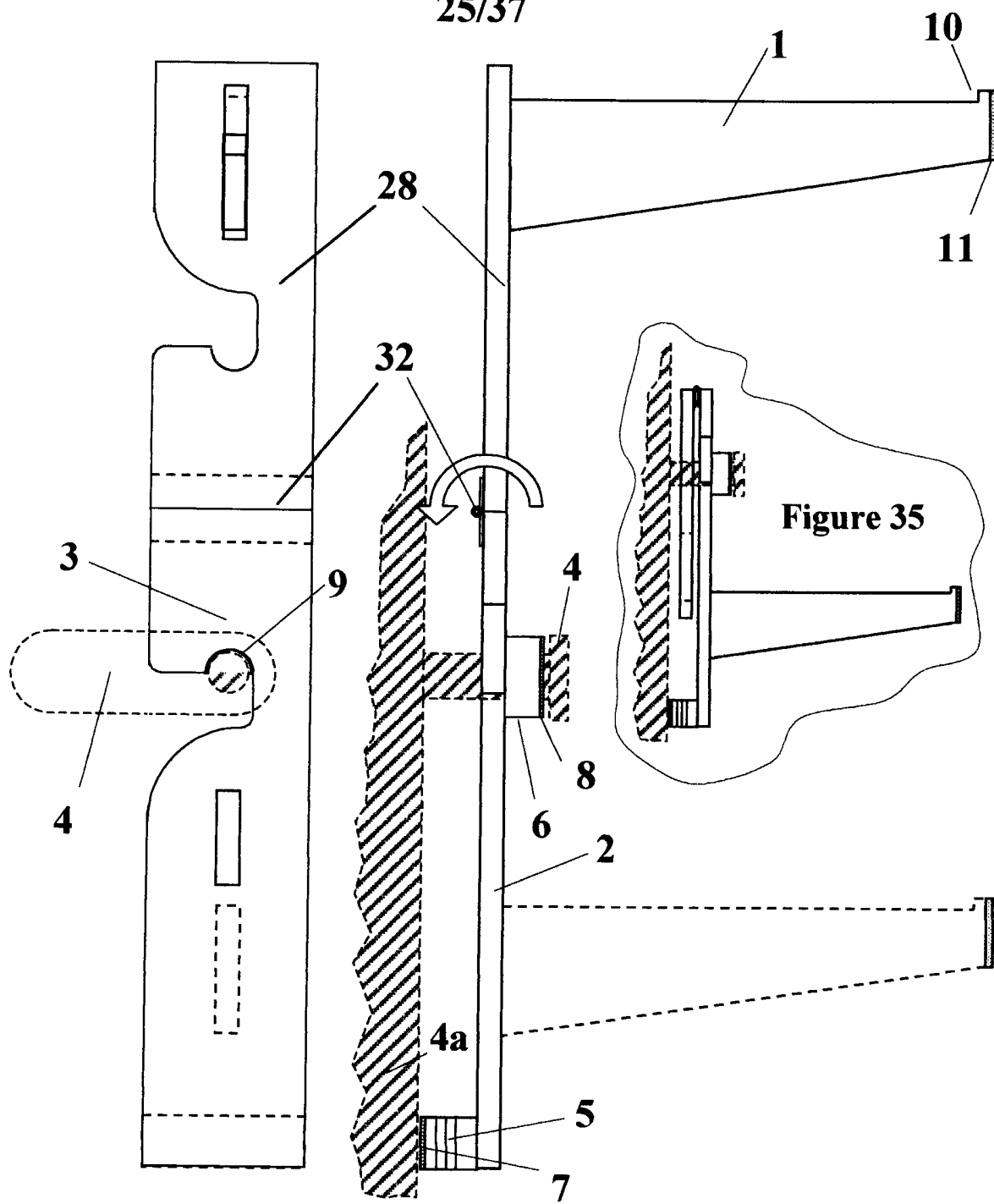


Figure 34

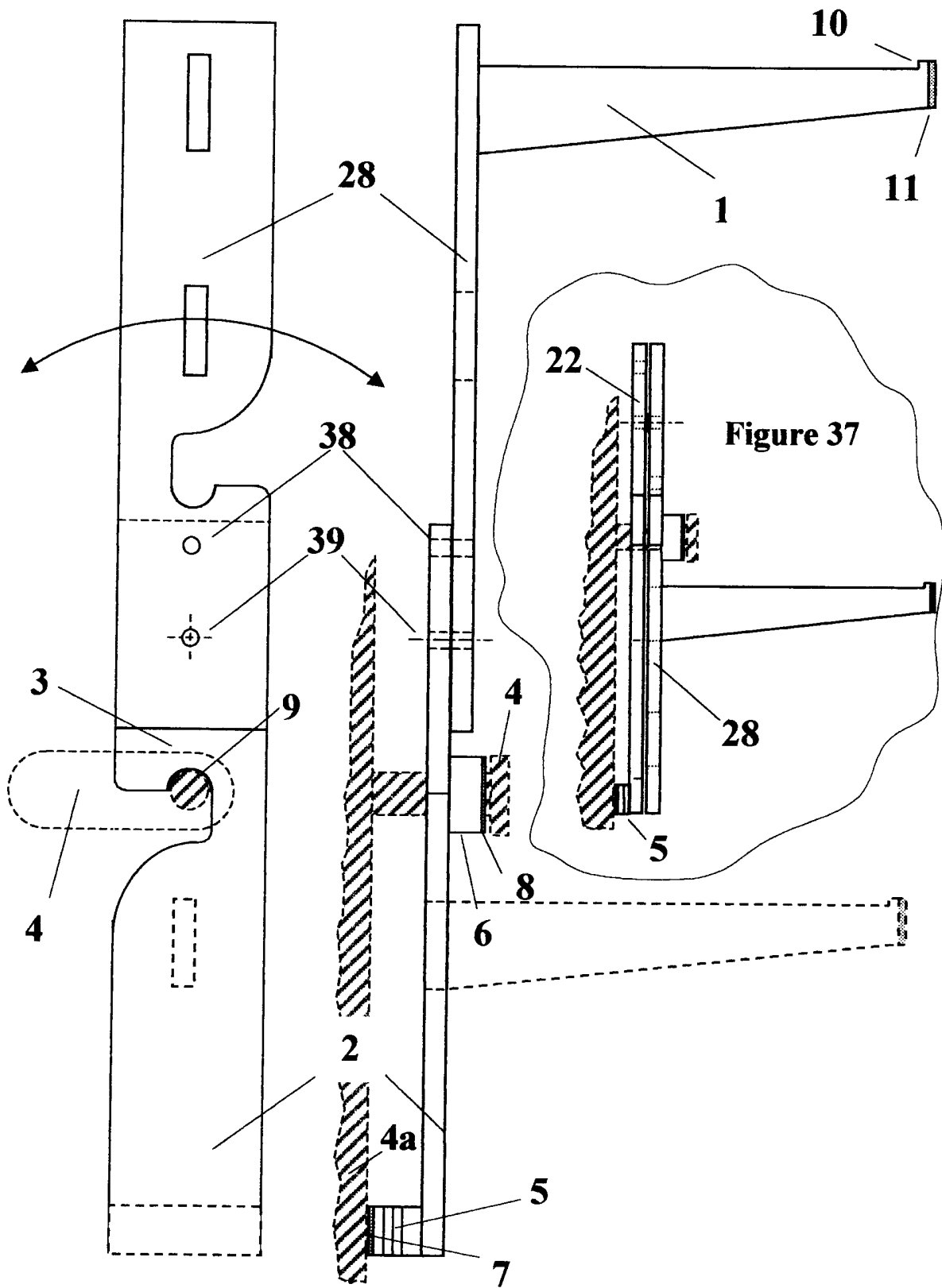


Figure 36

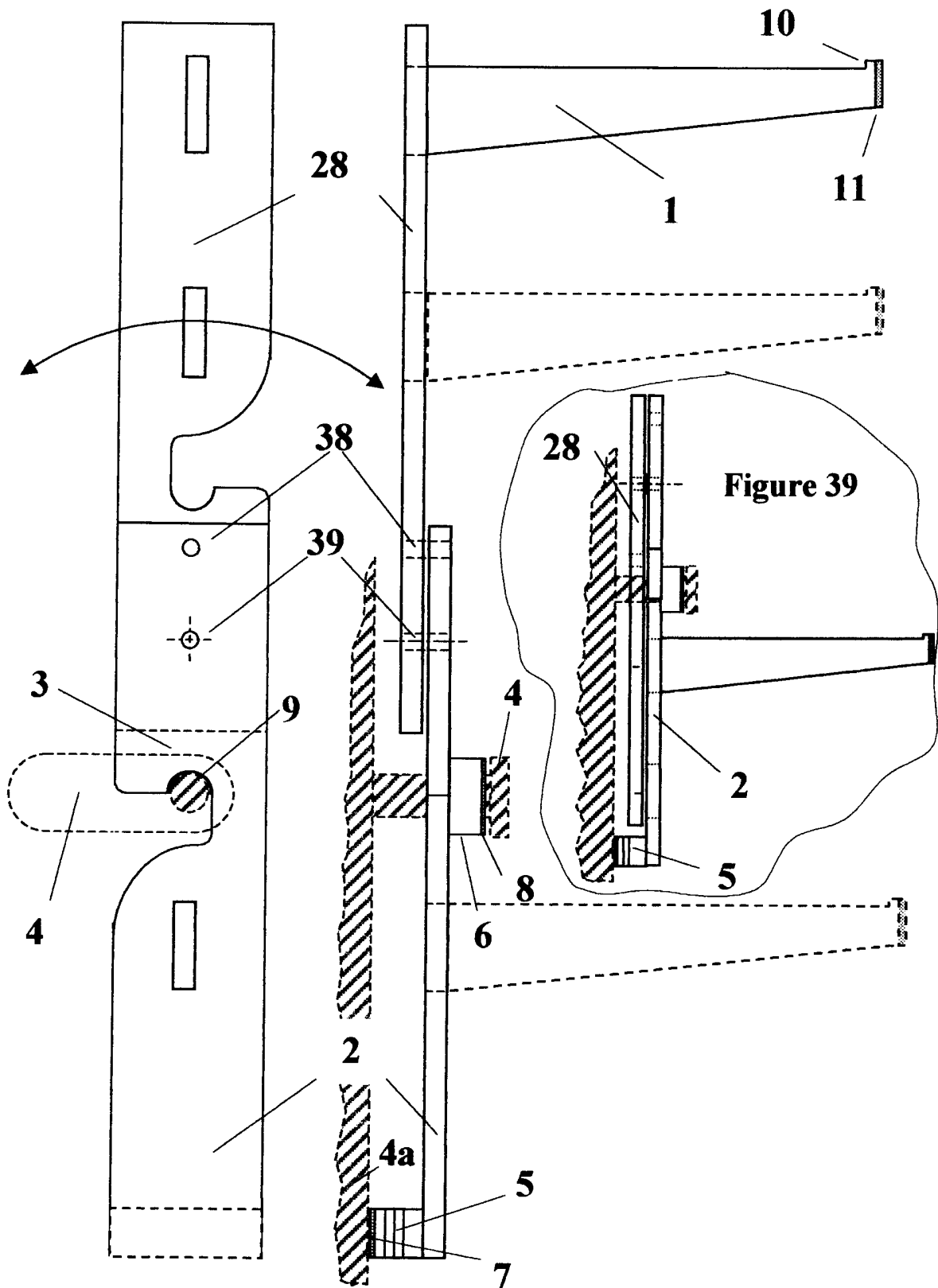


Figure 38

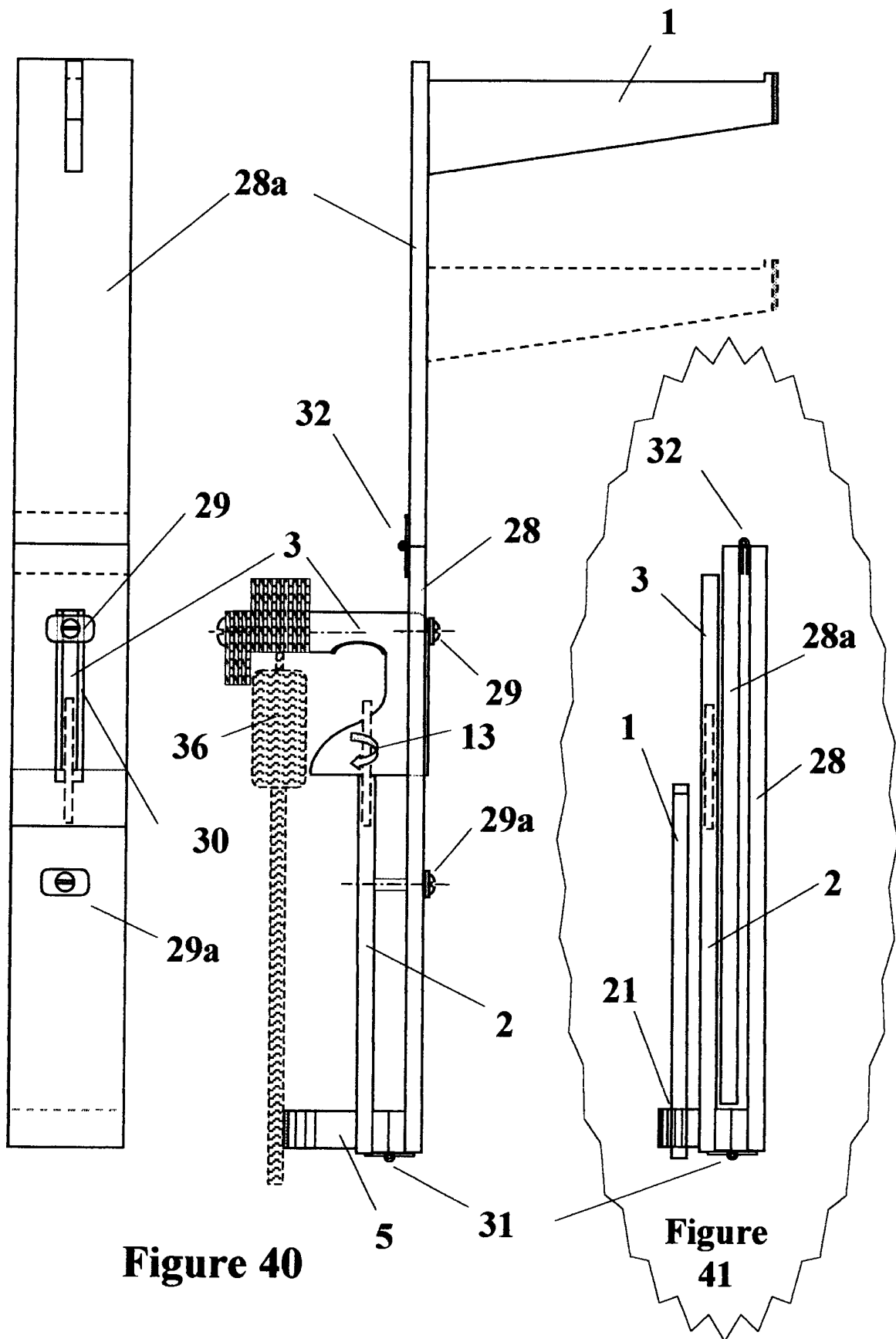


Figure 40

Figure 41

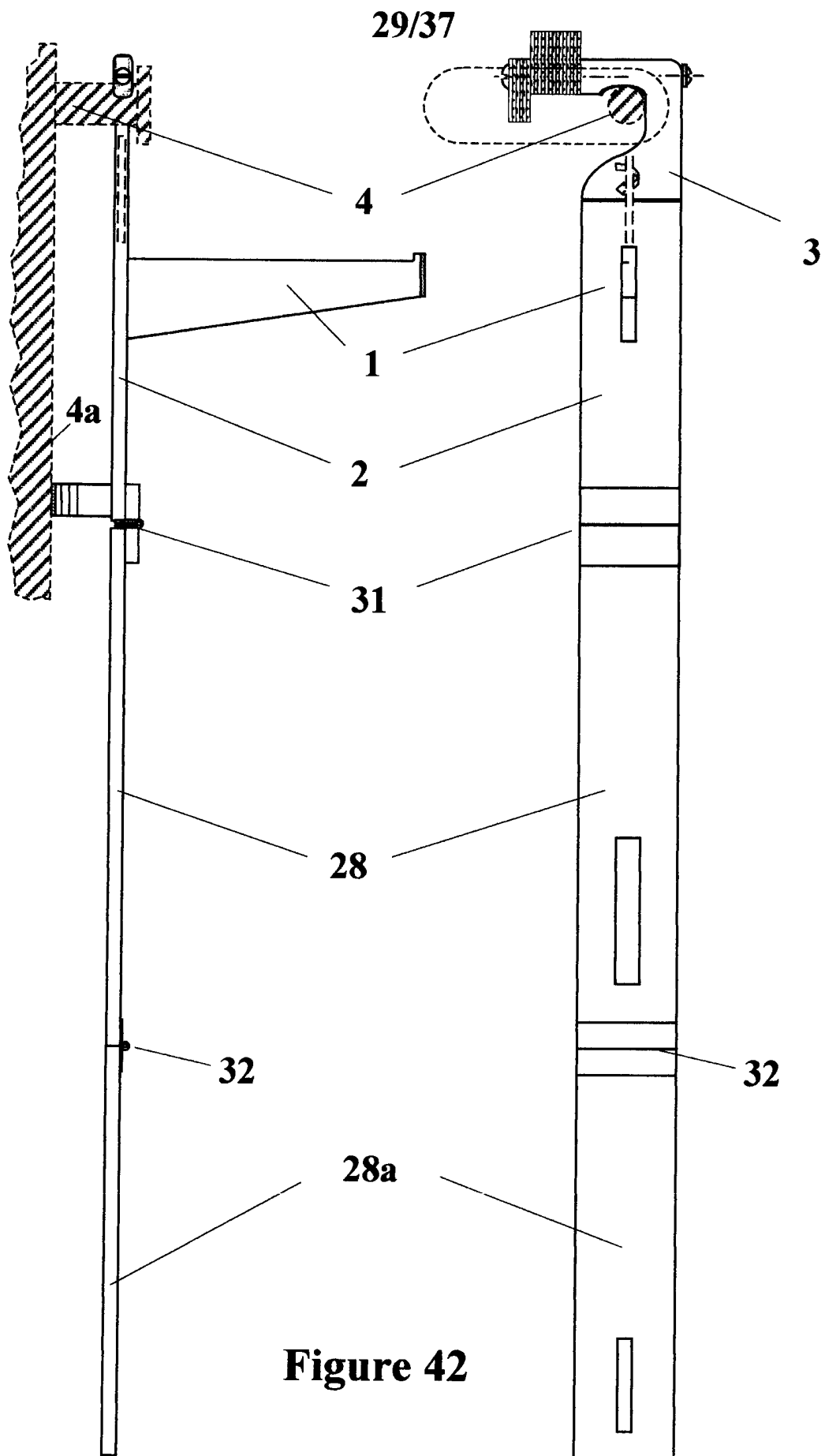


Figure 42

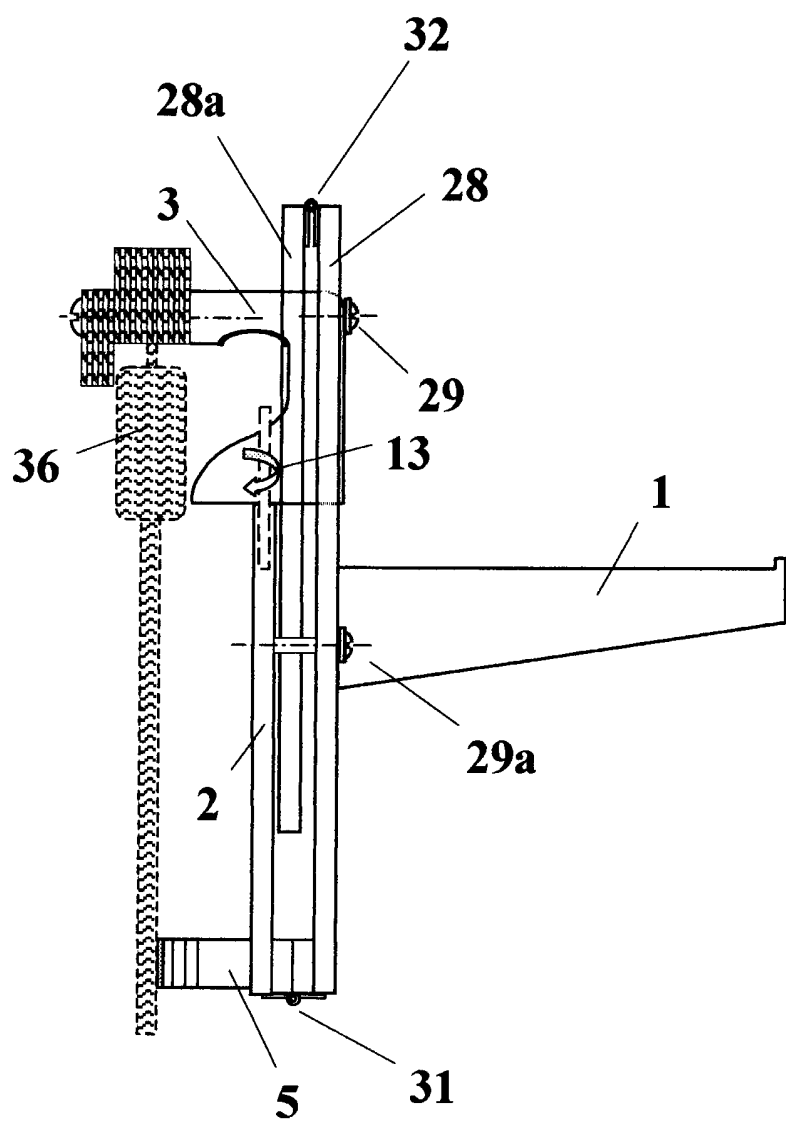
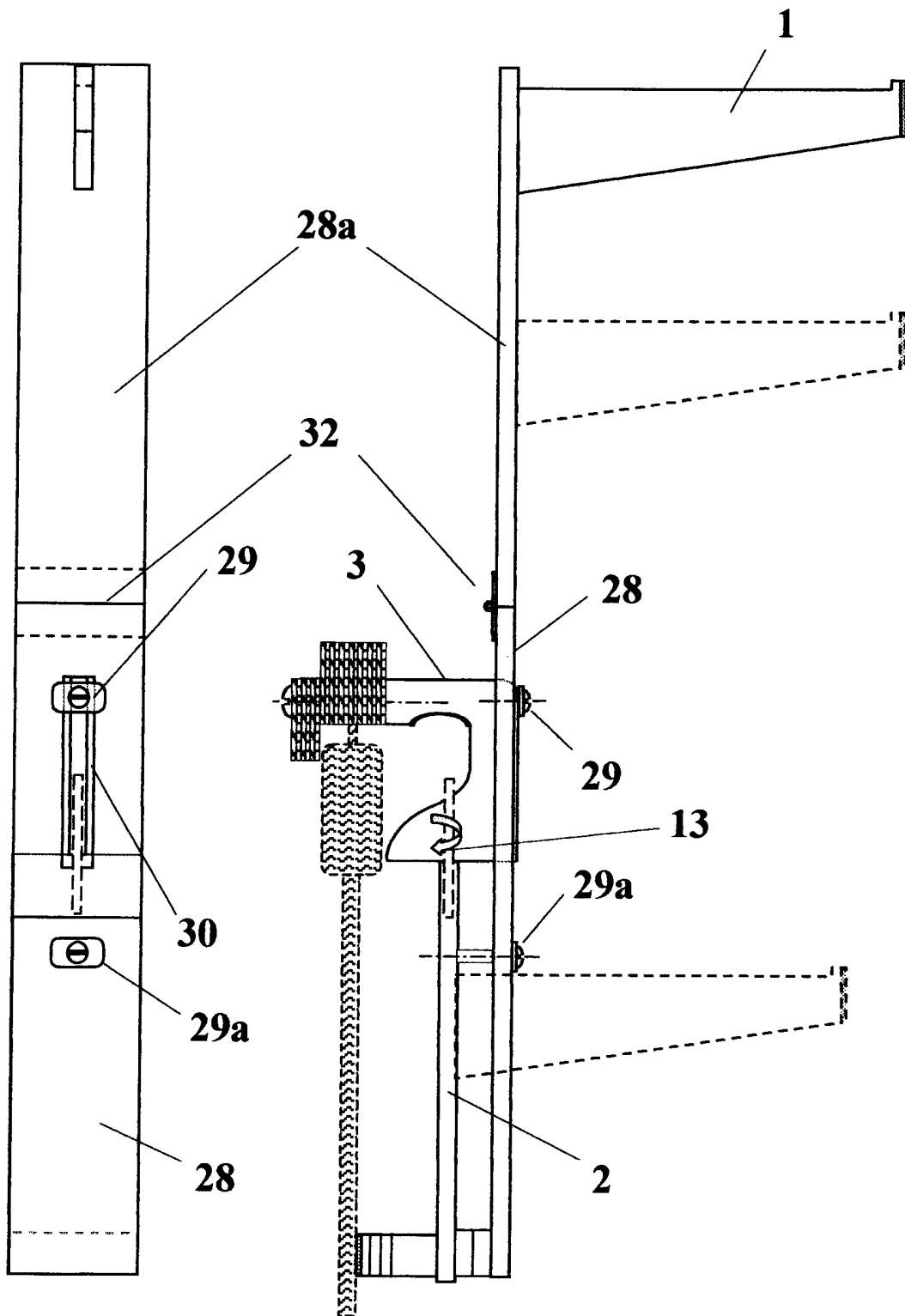


Figure 43

**Figure 44**

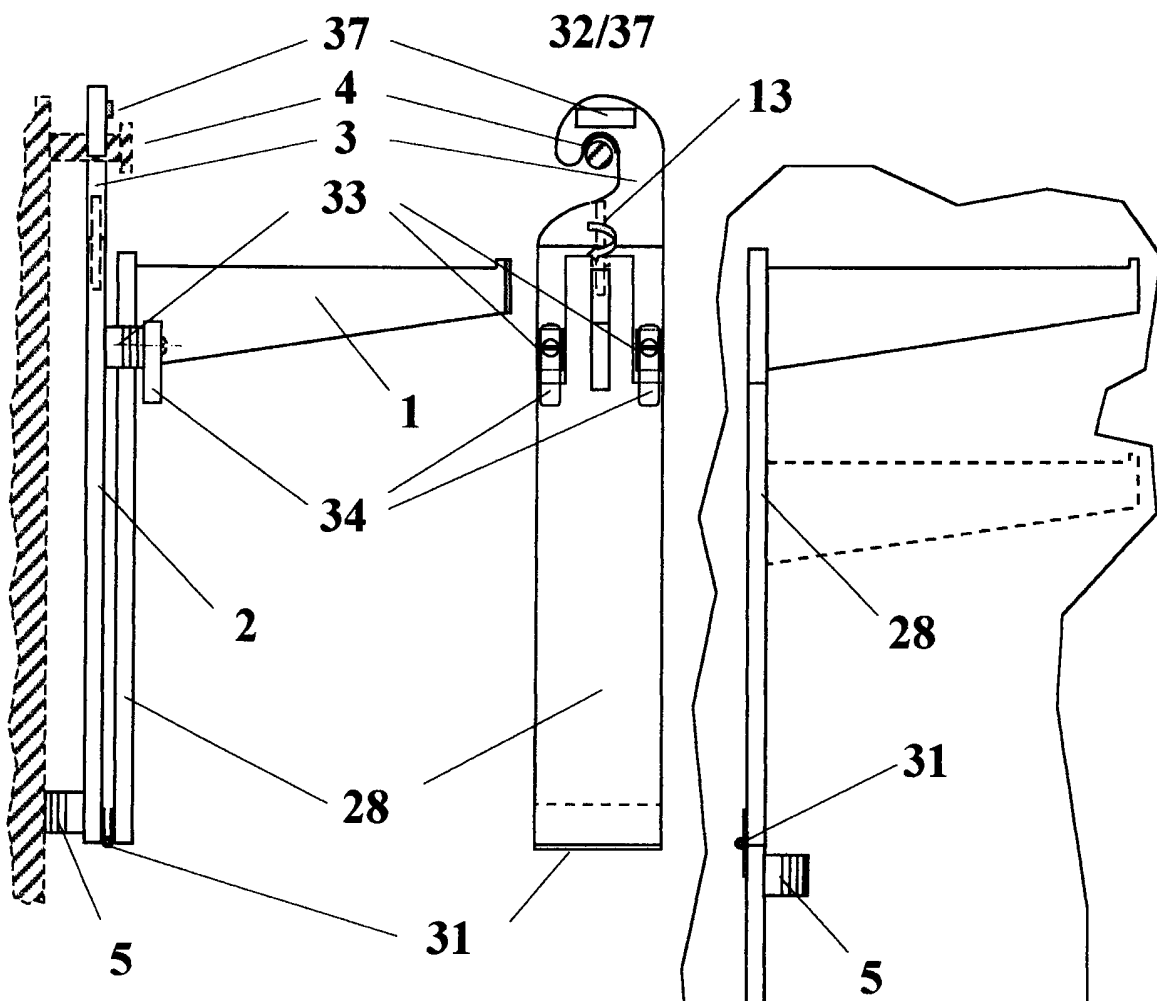


Figure 45

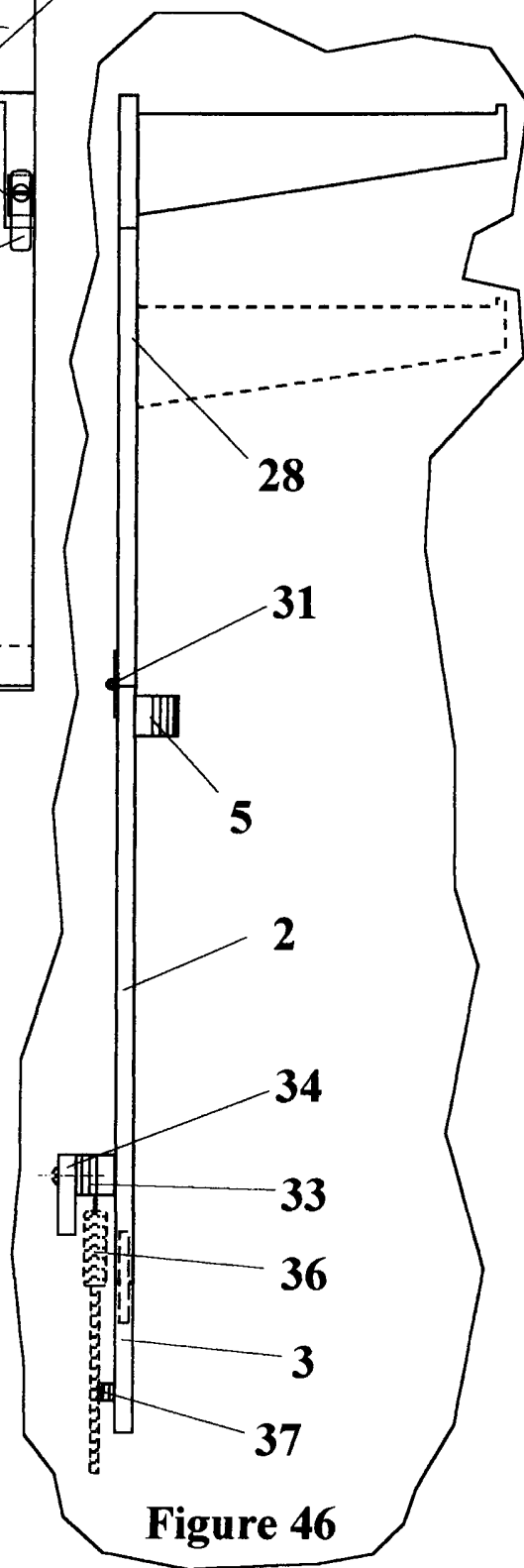


Figure 46

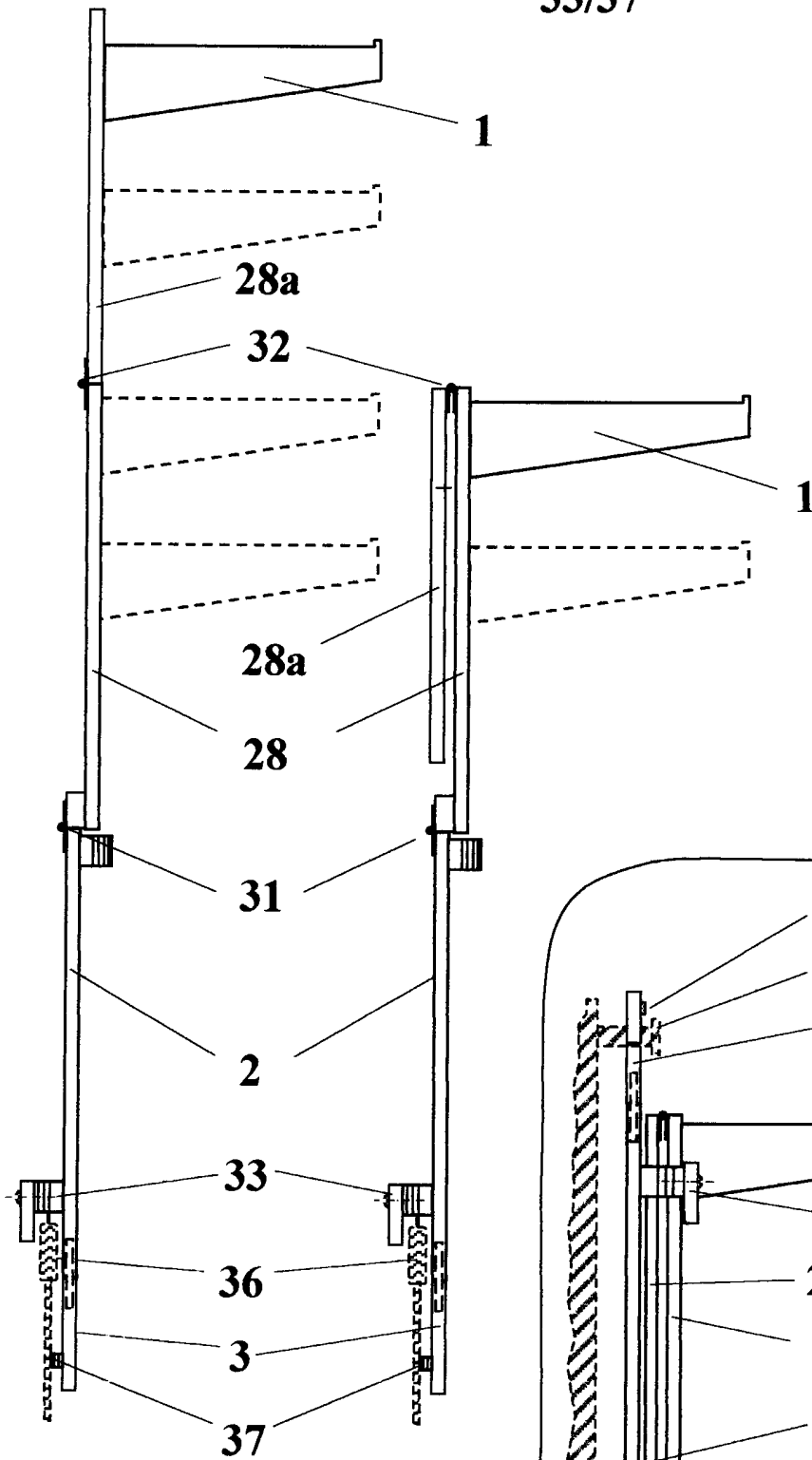


Figure 48

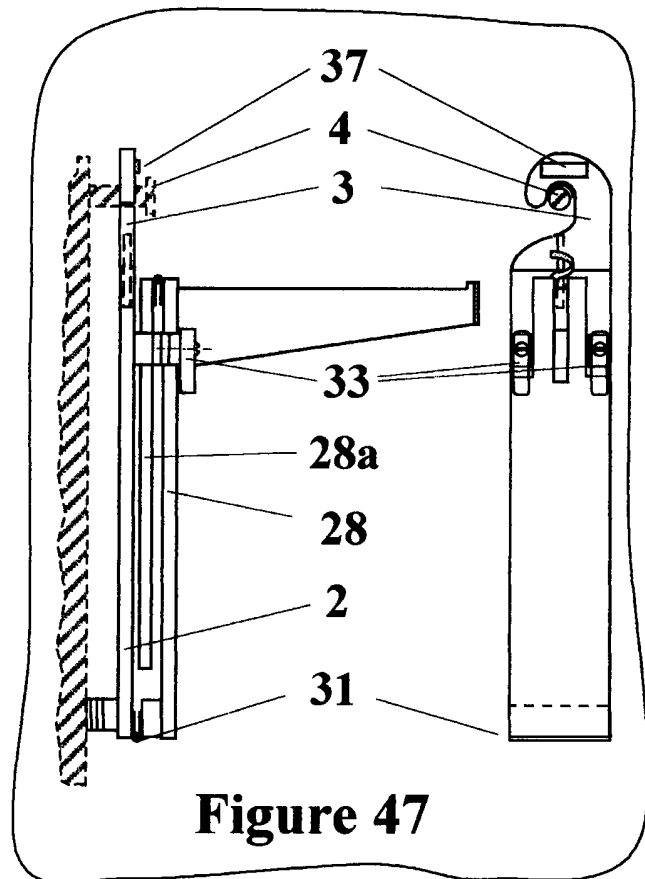


Figure 47

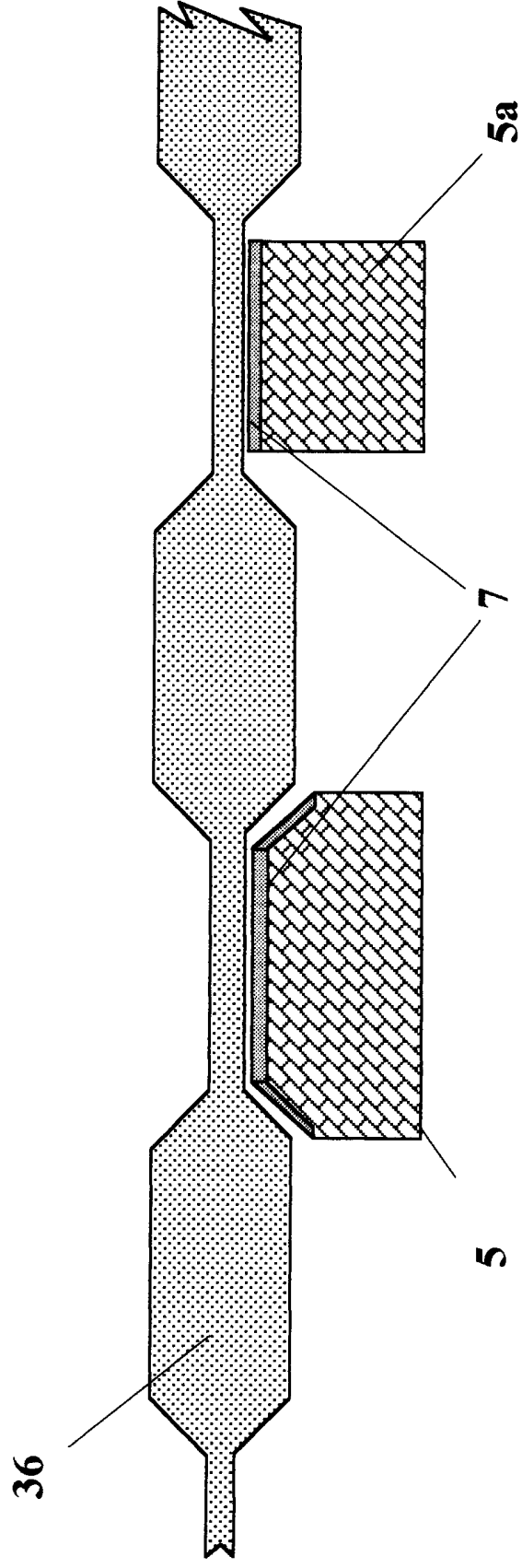


Figure 51

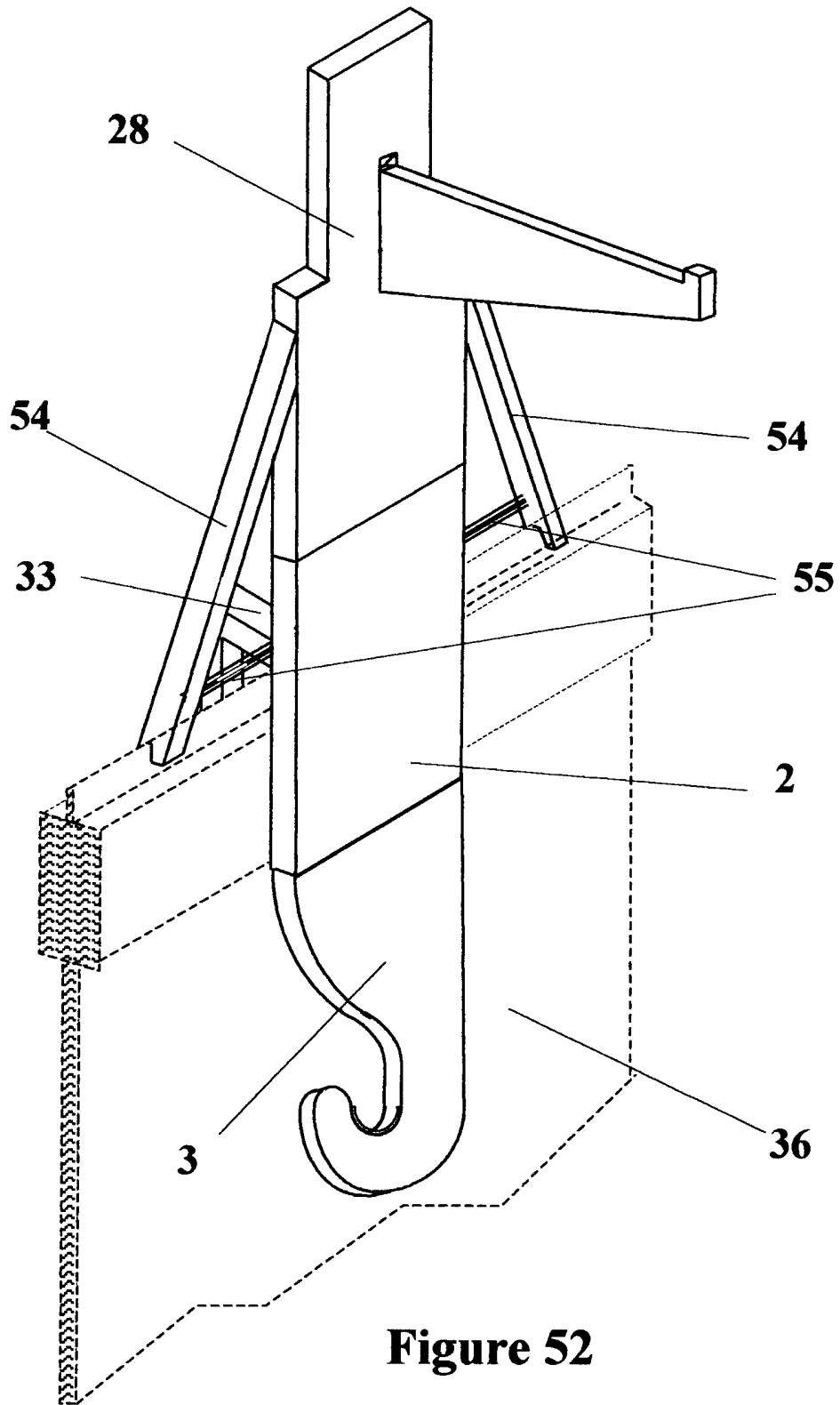


Figure 52

[illegible]

37/37

CLOTHES HANGER SUPPORT

The invention relates to a means of support for one or more clothes hangers that takes support from a wide variety of convenient mounting points.

Clothes hanger supports exist where support is taken from the tops of room doors, but they are rigid, bulky and suffer the further disadvantages that they do not lend themselves to being attached to other items and there must be sufficient clearance in the door aperture to accommodate the hanger bracket. Also, as they are mounted from the top of the doors the clothes hangers themselves are often not at a convenient height for shorter people.

An object of this invention is to provide a clothes hanger support that is readily adaptable and can take support from a variety of protrusions / mounting points, is readily removable and supports the hangers at a convenient height. Preferably, when supported from a door handle the clothes hanger support will be shaped so as not to adversely affect operation of the door or door handle.

Accordingly, this invention provides a clothes hanger support comprising a structure that supports a number of clothes hangers which is 'hooked' over a protrusion from an existing surface (such as a door or wall). Additionally, to provide stability when in use, the clothes hanger support also abuts one or more other surfaces (which does not necessarily include the surface from which the protrusion projects) without significantly adversely affecting either the protrusion or the other surfaces which the clothes hanger abuts. Commonly, the axis of the protrusion will be perpendicular to the surface from which the clothes hanger support also takes support as in the case of a conventional door handle. However, this is not necessarily the case and adaptations of the base design are described that allow the axis of the protrusion to be at any orientation (including parallel) to the surface from which the clothes hanger support also takes its support. The protrusion may be either point in nature (e.g. coat hooks, door handles etc.) or linear in nature (e.g. wall cupboard decorative pelmets, tops of wall mounted central heating radiators, towel rails etc.). Suitable protrusions therefore include (but are not limited to) door furniture of many types (e.g. handles, latches, coat hooks); permanent coat hooks on other structures and surfaces; cupboard and wall cupboard door furniture; wall cupboard decorative pelmets (where the pelmet provides the protrusion); shower screens (where the top of the screen provides the protrusion); cooker and appliance doors and door handles, tops of central heating radiators etc.

The hanger may be constructed of one or more components and may be made of metal, polymer, plastic, wood, plywood, any composite type material, metallic extrusions, plastic extrusions, flexible rope/cord/banding type material or any combination of these materials provided the material selected for each component has the requisite mechanical and physical properties for the purpose.

In the context of this invention, 'hooking' essentially describes the action of removably attaching the clothes hanger support on, over or around the supporting protrusion without requiring any form of clamping or other mechanical connection. Simplistically, it requires that the clothes hanger support incorporates a support formation that incorporates a recess into which the protrusion, either wholly or partially, enters and produces a mechanical engagement

between the two items which, after any clearances and /or looseness are taken up, provides the required mechanical restraint to resist or prevent further relative movement between the two components. This restraint is typically due purely to the physical shape of the support formation in relation to the protrusion, although the shape need not be the continuously curved classic hook shape.

A number of embodiments of the invention will now be described with reference to the accompanying figures. They will cover a number of embodiments of the support formation in which support is taken from a variety of protrusions. Additionally they will include embodiments in which the height of the clothes hangers may be set both above and below the height of the protrusion / highest of the clothes hanger support's support points.

- Figure 1 shows a clothes hanger support with the support formation opening closed to both sides
- Figure 2 shows a clothes hanger support with the support formation opening open to the left side of the opening
- Figure 3 shows a clothes hanger support with the support formation opening open to the right side of the opening
- Figure 4 shows a clothes hanger support with a detachable both sides closed support formation attached to the upper part of the body
- Figure 5 shows a clothes hanger support with a detachable both sides closed support formation with attachment to the lower part of the body
- Figure 6 shows a clothes hanger support with a one-side open support formation attached to the upper part of the body
- Figure 7 shows a clothes hanger support with a one-side open support formation with attachment to the lower part of the body
- Figure 8 shows a clothes hanger support with an articulating both sides closed support formation
- Figure 9 shows a clothes hanger support with an articulating both sides closed support formation in the rotated position
- Figure 10 shows a clothes hanger support with an articulating one-side open support formation
- Figure 11 shows a clothes hanger support with an articulating one-side open support formation in the rotated position
- Figure 12 shows a clothes hanger support with a pivoting lower supported one side open support formation
- Figure 13 shows two opposite handed views of a clothes hanger support with a removable and reversible support formation.
- Figure 14 shows a detail of a possible dovetail type connection detail to facilitate the removable and reversible support formation

Figure 15 shows various embodiments of possible removable and reversible support formation connection arrangements.

Figure 16 shows a clothes hanger support incorporating an adjustable hook

Figure 17 shows a clothes hanger support incorporating a second form of adjustable hook

Figure 18 shows a clothes hanger support incorporating an extended hook with multiple engagement points

Figure 19 shows a clothes hanger support incorporating a flexible eye type support formation

Figure 20 shows a clothes hanger support incorporating a flexible loop type support formation

Figure 21 shows a clothes hanger support incorporating an adjustable length flexible loop type support formation

Figure 22 shows a clothes hanger support incorporating a low mounted flexible loop type support formation

Figure 23 shows a clothes hanger support incorporating an adjustable length low mounted flexible loop type support formation

Figure 24 shows a clothes hanger support incorporating a single articulating/hinge type facility between the hanger support arm and the body

Figure 25 shows a clothes hanger support incorporating two articulating/hinge type facilities between the hanger support arm and the body.

Figure 26 shows a clothes hanger support incorporating two articulating/hinge type facilities between the hanger support arm and the body when folded.

Figure 27 shows a clothes hanger support incorporating a detachable hanger support arm.

Figure 28 shows a clothes hanger support incorporating a detachable hanger support arm when dismantled for storage.

Figure 29 shows a detail of a hanger support arm to body connection that allows the arm to be mounted on either side of the body.

Figure 30 shows two views of a clothes hanger support with removable and reversible hanger support arm and packing assembled opposite handedly.

Figure 31 shows a means of adjusting the orientation of the hanger support arm relative to the body utilising packing.

Figure 32 shows a means of adjusting the orientation of the hanger support arm relative to the body utilising a screw jacking approach.

Figure 33 shows another example of adjusting the orientation of the hanger support arm relative to the body utilising a screw jacking approach.

Figure 34 shows a clothes hanger support in which the elevation of the clothes hangers can be made to be higher than the elevation of the support formation.

Figure 35 shows a folding version of the clothes hanger support shown in Figure 34 used as a hanging type support.

Figure 36 shows a second embodiment of a clothes hanger support in which the elevation of the clothes hangers can be made to be higher than the elevation of the support formation.

Figure 37 shows a folding version of the clothes hanger support shown in Figure 36 used as a hanging type support.

Figure 38 shows a third embodiment of a clothes hanger support in which the elevation of the clothes hangers can be made to be higher than the elevation of the support formation.

Figure 39 shows a folding version of the clothes hanger support shown in Figure 38 used as a hanging type support.

Figure 40 shows a fourth embodiment of a clothes hanger support in which the elevation of the clothes hangers can be made to be higher than the elevation of the support formation.

Figure 41 shows the clothes hanger support shown in Figure 40 when folded for storage.

Figure 42 shows the clothes hanger support shown in Figure 40 when fully unfolded and used as a hanging support.

Figure 43 shows the clothes hanger support shown in Figure 40 when folded and used as a hanging support.

Figure 44 shows a fifth embodiment of a clothes hanger support in which the elevation of the clothes hangers can be made to be higher than the elevation of the support formation and may be supplied as a basic hanging type clothes hanger support with a separate adapter to convert it to allow the clothes hangers to be supported above the support formation.

Figure 45 shows a universal clothes hanger support that can support clothes hangers both above and below the support formation, used as a hanging type support supported from a door handle.

Figure 46 shows the clothes hanger support shown in Figure 45 taking support from a central heating radiator and supporting the clothes hangers above the height of the radiator.

Figure 47 shows the clothes hanger support shown in Figure 45 that incorporates a third body section used as a hanging type support.

Figure 48 shows the clothes hanger support shown in Figure 45 that incorporates a third body section taking support from a central heating radiator and supporting the clothes hangers above the height of the radiator.

Figure 49 shows an adaptation of the clothes hanger support shown in Figure 45.

Figure 50 shows the clothes hanger support shown in Figure 49 taking support from a central heating radiator and supporting the clothes hangers above the height of the radiator.

Figure 51 shows the principle of profiling the clothes hanger support body packing / body orientation adjustment to engage with the surface of a modern plate type central heating radiator.

Figure 52 shows a clothes hanger support incorporating a means of providing additional stabilisation.

Figure 53 shows a clothes hanger support incorporating a means of restricting unwanted movement of the hangers along it.

With the exception of a single component embodiment, in all of the following embodiments provision may be made to allow the clothes hanger support arm to be set in more than one position, thereby allowing the user a degree of flexibility in selecting the height of the clothes hangers. In some figures, additional clothes hanger support arms being shown in dashed outline indicates potential alternative hanger support arm position(s). However, the figures should be taken as being indicative of the potential for the clothes hanger support arm to be positioned in more than one location or on more than one component rather than as an indication of a preferred position or positions.

The referenced figures show the clothes hanger support components as being made from sheet like materials. However, the various figures should be taken as being indicative only of the general arrangement and inter-relationship between the various parts of the clothes hanger support and not as indicating a preference of type of material of construction for any particular part. . For example, rotating support formation or the hanger support arm could be made by bending metal barstock to the required outline, whilst the body could be made similarly, or of pressed metal sheet with welded on or bonded on connections or by any other appropriate construction.

Figure 1 shows the whole arrangement of a simple clothes hanger support according to the invention. In this and all other embodiments of the invention, all shapes are indicative only and may be adapted to suit the functional needs of the component. For example, the shape of the clothes hanger support arm (1) could be any profile providing it is small enough to allow a clothes hanger to fit over it at any point whilst being economical from a materials usage point of view yet strong enough to withstand the applied forces and bending moments at all points along it.

As shown in Figure 1, the item comprises of a clothes hanger support arm (1) and a support formation (3) that are attached to the body of the clothes hanger support (2). In this embodiment, the support formation (3) incorporates an upwardly closed opening that is also closed both to its left and right hand sides and is profiled to an appropriate shape and suitably sized to allow it to easily take support from and be removed from most types of conventional door handle (4) and other common domestic surface protrusions. In addition to taking support from that which it is hooked over (4), the clothes hanger support is also arranged to take restraint from one or more other surfaces or bodies (4a) – with the resulting reaction forces that occur at the points of contact maintaining the clothes hanger support in stable equilibrium during use without the need for clips, clamps or other mechanical fixings.

In this basic embodiment, the clothes hanger support arm (1), the body of the clothes hanger support (2) and the support formation (3) may simply be functionally different areas of a single structural entity which is made as a single component as, for example, in a plastic moulding or a cast or folded metal construction. Alternatively, it may also be an assembly of separate components mechanically fixed or bonded together. However, for all embodiments

it is preferable for the hanger support arm not to be permanently rigidly fixed to the body as this will make the unit much more compact for storage when not in use.

Packing shims (5) may be provided to the main hanger support body to allow the clothes hanger support arm (1) to lie at an appropriate orientation (usually horizontal or rising slightly) for effective hanger support. The provision of packing is an optional feature that may be applied to this or any of the following embodiments as desired.

In addition to, or possibly alternatively to, the main 'packing' (5), supplementary 'packing' (6) may be provided at the protrusion contact / support formation area to obtain an appropriate mounting orientation and / or improve ease of use of a supporting door handle. The provision of supplementary packing is optional and may be readily applied to this or any of the following embodiments (except those shown in Figures 20 and 21) as desired.

Both 'packing' and 'supplementary packing' may be manufactured as an integral part of the main body of the clothes hanger support (2). Alternatively, some or all of the 'packing' may be produced of separate components so as to be 'user' adjustable to allow the unit to mount properly on a range of surface / protrusion geometries.

Any suitable means of fixing the packing together and to the body may be adopted including attachment by weak adhesive, use of double-sided adhesive tape or Velcro. Mechanical fixings such as physical interlocking of components, screwing or friction contact 'doweling' could also be used. Adjustment of the body orientation could also be achieved by using a screw jacking type system, or by any other suitable means of mechanical adjustment of the distance between the body and the surface(s) with which the clothes hanger support abuts. Body orientation adjustment is an optional feature that may be applied to all the various embodiments described herein.

The surfaces of the clothes hanger support that come into contact with that which supports or restrains it may be provided with a cushioning material (7), (8) & (9) to minimise potential damage / disfigurement of the surfaces supporting the clothes hanger support. These surface protections may also be of a high friction material to enhance stability of the clothes hanger support and reduce down load on the support formation.

The extreme end of the clothes hanger support arm is provided with a stop facility (10) to prevent clothes hangers falling off the end of the clothes hanger support arm. This may be either an integral part of the member or a separate component.

Soft cushioning material (11) may be provided at the extreme end of the clothes hanger support arm to minimise damage to walls or other decorative surfaces into which the clothes hanger support arm may come into contact with when a door is opened.

Figure 2 shows an embodiment of the invention in which the support formation (3) is profiled to the general form of an open sided hook (closed to its right hand side) which, with appropriate profiling of the support formation and body, not only allows the clothes hanger support to be easily fitted to and removed from most types of conventional door handle (4),

but minimises interference with operation of the door handle on doors that are hinged on the left hand side of the handle.

Figure 3 shows an embodiment of the invention that is effectively a mirror image of Figure 2 and is suitable for doors that are hinged on the right hand side of the handle.

Figure 4 shows an embodiment of the invention in which the support formation (3) incorporates an opening that is closed to both its left and right hand sides. The body and support formation are separate items with at least one connection (41) being made to the upper part of the body.

Figure 5 shows an embodiment of the invention in which the support formation (3) incorporates an opening that is closed to both its left and right hand sides. The body and support formation are separate items with at least one connection (41) being made to the lower part of the body. The figure shows the support formation extending down both sides of the body. However, it could be arranged so that it extends down only one side of the body or down either or both back and front faces of the body. Alternatively, the support formation could be attached by one or more mechanical fixings (e.g. screws or bolts) extending from the support formation through the body to the bottom of the body. This through bolt arrangement may apply to both open and closed support formations.

Figure 6 shows an embodiment of the invention in which the support formation (3) incorporates an opening that is open to its left hand side. The body and support formation are separate items with at least one connection (41) being made to the upper part of the body. The arrangement could also be arranged opposite handed to that shown.

Figure 7 shows an embodiment of the invention in which the support formation (3) incorporates an opening that is open to its left hand side. The body and support formation are separate items with at least one connection (41) being made to the lower part of the body. The arrangement could also be arranged opposite handed to that shown or the support formation could extend down both sides of the body. It could also be arranged for the support formation to extend down either or both back and front faces of the body.

Figure 8 shows an embodiment of the invention in which the support formation (3) incorporates an opening that is closed to both its left and right hand sides. The body and support formation are separate items and the embodiment incorporates a load bearing articulating or swivel arrangement (13) and the figure shows the support formation aligned with the plane of the body and taking support from a protrusion that is substantially perpendicular to the body of the clothes hanger support. Figure 9 shows the support formation rotated through 90° and taking support from a protrusion that is substantially parallel to the body of the clothes hanger support.

Figure 10 shows an embodiment of the invention in which the support formation (3) incorporates an opening that is closed to one side only. The body and support formation are separate items and the embodiment incorporates a load bearing articulating or swivel arrangement (13). The figure shows the support formation aligned with the plane of the body and taking support from a protrusion that is substantially perpendicular to the body of the

clothes hanger support. Figure 11 shows the support formation rotated through 90° and taking support from a protrusion that is substantially parallel to the body of the clothes hanger support. The articulating or swivel arrangement also allows the support formation to be turned to face in the opposite direction to that shown in Figure 10, thereby allowing the clothes hanger support to be used with minimum interference to door handle operation on doors that are hung on either side.

Figure 12 shows an embodiment of the invention in which the support formation (3) incorporates an opening that is closed to one side only. The body and support formation are separate items and the embodiment incorporates a load bearing articulating or swivel arrangement (13) whereby the hanger support formation can be pivoted about the body. In this embodiment the body is extended (2b) sufficiently for it, in use, to contact the back surface of the door handle and take horizontal restraint (in the direction perpendicular to the door surface) directly into the body rather than via the support formation. The figure shows the body extension (2b) on the door hinge side of the door handle shaft. It could however, be positioned on the other side of the handle shaft or two extensions could be provided one either side of the shaft. The arrangement could also be arranged opposite handed to that shown.

Figure 13 shows two views of an embodiment of the invention in which the support formation (3) incorporates an opening that is closed to one side only and is detachable from the body. The connection between them is shown as a dovetail type joint so that the support formation may be attached reversibly thereby allowing the open side of the support formation to be set facing either to the left or right as required. Figure 14 shows an enlargement of such a dovetail joint arrangement (42). However, any form of mechanical interconnection or interlocking linear 'slide fit' connection capable of resisting the appropriate forces could be utilised. For a slide fit type connection some means of stopping or locking the joint could be utilised. However as, in use, there are no significant forces acting along the length of the joint, use of an appropriately close fitting joint and the effects of friction within the joint will normally suffice. As an alternative to the joint being formed directly into the body and support formation components, the interlocking joint itself could be of two additional components, one of which (43) is attached to the support formation with the other (44) attached to the body (see Figure 15). A further variation would be for the joint to be formed directly into the support formation, which would then connect with an interfacing component attached to the body or vice versa. An indication of some of the potential alternative connection arrangements is shown in Figure 15.

Figure 16 shows two views of an embodiment of the invention in which the support formation (3) incorporates an opening that is closed to one side only. The body and support formation are separate items and the support formation is adjustable to suit a range of different shaped and sized supports – e.g. the pelmeting that is commonly provided around the tops of kitchen wall cupboards and can be of different cross sections depending on manufacturer and style of pelmet. In the configuration shown, the end of the support formation (3) is cut short and a number of appropriately shaped packing shim washers (22) are secured to the end of the support formation by a screw or bolt (23). The packing washers are drilled off centre, so that the internal width of the support formation can be varied to suit the support by rotating the packing washers appropriately. Alternatively, the same effect may be achieved by utilising an appropriate combination of two different sized packing washers. Similarly, an arrangement of

packing shim washers (24) and a screw or bolt (25) may be utilised to adjust support formation depth. Adjustment may be provided for either support formation width, support formation depth or both support formation width and support formation depth. Adjustment of the support formation geometry may be provided to both fixed and rotatable support formation styles of clothes hanger.

Figure 17 shows an alternative approach to providing adjustment of the support formation to suit different types of protrusion. In this embodiment, adjustment of the support formation width is achieved by adjusting the position of an adjusting bracket (26) (which may be slotted or incorporate a number of fixing holes) and is secured in place mechanically. A screw or bolt (27) is shown in the figure, although other fixings such as cam locks may be used.

Figure 18 shows an embodiment of the invention in which the support formation (3) incorporates an opening that is closed on one side only. The body and support formation are separate items, with the support formation (3) being extended and provided with multiple points of engagement (20) to provide two or more seating locations. The profile of the contact surface of the support formation need not necessarily be a series of arcs, but may be any shape that allows an effective engagement between the support formation and that which it takes support from. This could be a series of steps, triangular insets, rectangular insets etc. rather than the series of arcs shown in the figure.

Figure 19 shows an embodiment of the invention in which the support formation incorporates an opening that is closed on both sides, with the body and support formation being separate items. The support formation (16) is made of a material that offers high resistance to tensile forces but has a relatively low resistance to bending forces (e.g. plastic sheet or reinforced rubber sheet) to better facilitate positioning over the protrusion / door handle. In use, the resulting deflection of flexible type support formation is accommodated by increasing the thickness of the packing, thereby ensuring the hanger support arm remains acceptably level.

Figure 20 shows an embodiment of the invention incorporating an elongate flexible loop support formation (14) whereby the clothes hanger support can be affixed to virtually any protrusion. The height of the hanger can be adjusted relative to the height of the supporting protrusion by making the length of the loop adjustable – e.g. by using ‘Velcro’ straps, a buckle arrangement or simply by tying together (45) the ends of a length of cord type material as shown in Figure 21. The ‘loops’ need not pass through a hole in the body as indicated in the figure, but could be physically attached to the body as in the arrangement shown in Figure 22.

Figure 22 shows another embodiment of the invention incorporating an elongate flexible loop support formation (14). In this embodiment, the flexible loop is attached (41) to the lower part of the body. The body is extended (2b) sufficiently for it, in use, to contact the back surface of the door handle and take horizontal restraint (in the direction perpendicular to the door surface) directly into the body rather than via the support formation. The figure shows the extension on the door hinge side of the door handle shaft. It could however, be positioned on the other side of the handle shaft or two extensions could be provided, one either side of the shaft. The height of the hanger can be adjusted relative to the height of the supporting protrusion by making the length of the loop adjustable – e.g. by using ‘Velcro’ straps, a

buckle arrangement or simply by tying (45) together the ends of a length of cord type material as shown in Figure 23.

Figure 24 shows an embodiment of the invention incorporating an articulating/hinge type facility (12) between the body and the hanger support arm to allow the clothes hanger support to be folded up when not in use, thereby making the item more conveniently stored.

Figure 25 shows an embodiment of the invention in which the clothes hanger support arm has an articulating / hinge connection (18) at two locations and is supported at one hinge location directly from the body of the clothes hanger support and at the other location by a strut arrangement (19) which provides a second triangulating support for the clothes hanger support arm back to the body of the clothes hanger support. The whole unit may then be easily folded as shown in Figure 26 for compact storage.

Figure 27 shows an embodiment in which the clothes hanger support arm (1) may be separated from the main body of the clothes hanger support (2) for more compact storage. Attachment of the two components may be by physical interlocking as shown, by mechanical fixing (e.g. screws) or any other appropriate means. To reduce the possibility of losing one of the components when separated, a full or partial depth rebate (21) may be provided in the 'packing' (5) for retention/stowage of the clothes hanger support arm as indicated in Figure 28. Alternatively, a separate stowage bracket/restraint may be provided or a Velcro type fixing utilised.

Figure 29 shows an adaptation of the connection detail shown in Figure 27 that allows the hanger support arm (1) to be fitted to either side of the body without protruding significantly beyond the rear face of the body by providing a 'vee' type engagement (42) in the opening. This, in conjunction with the facility for the packings (5) and (6) also to be removable and fittable to protrude either side of the body, has the benefit that a simple rigid bodied clothes hanger support may then be used with minimal interference to door handle operation on both right and left side hinged doors – as shown in Figure 30. Although the figures show plate type components to illustrate the principle of reversibility, the principle of reversibility applies to any appropriate form of component construction – as indicated earlier. Furthermore, reversibility of the hanger support arm may be achieved by any other method, for example allowing a hinged hanger support arm to rotate through 180 degrees or so - although this may require the body to be slotted to allow the arm to pass through it.

An alternative approach to providing adjustment of the orientation of the hanger support arm is to arrange for the orientation of the arm relative to the body to be adjustable. This may be achieved in a number of ways including the use of packing or use of a screw 'jacking' arrangement. Figure 31 shows an arrangement in which packing (49) may be provided to a detachable hanger support arm. Alternatively, the packing could be situated at the upper area of contact between the arm and the body. Any suitable means of fixing the packing may be used, some of which have been indicated in the description of Figure 1.

Figure 32 shows a screw jacking type of arm orientation adjustment (50) applied to a detachable type hanger support arm.

Hanger support arm orientation adjustment may be provided to any non rigidly fixed arm and, as another example, Figure 33 shows a screw jacking system (50) applied to a singly hinged arm. Although not shown in a figure, the same effect could be achieved by use of packing either directly between the arm (1) and the body (2) or between the hinge housing (12) and the body (2).

Figure 34 shows an embodiment of the invention in which the elevation of the clothes hangers can be made to be higher than the elevation of the support formation. It is essentially an adaptation of the embodiment shown in Figure 2 in which the body of the clothes hanger support (2) is elongated and the support formation (3) is effectively a profiled recess set part way up the body. To make the unit more compact for storage (or for when the hanger support arm does not need to be set higher than the support formation), the body may be split into 2 separate parts (the lower body (2) and the upper body (28)) connected either by a linear hinge arrangement (32) as shown or by a dismantleable joint. Figure 35 shows such a hinged arrangement when folded and hung beneath a door handle. To facilitate folding, a recess also needs to be cut into the upper body (28) to prevent the upper body fouling on the door handle / protrusion when folded and used as a simple hanging type clothes hanger support. The upper body may also be profiled to minimise interference in operation of a door handle.

An alternative to using a linear hinge to make the clothes hanger support more compact when not in use is shown in Figure 36. In this embodiment, the body is again divided into two parts, but connected by an articulating joint (39). When extended, the two parts of the body are mechanically locked in position (the figure indicating a simple peg arrangement (38), although any form of mechanical locking e.g. spring loaded pin or removable screws etc may be utilised). In the arrangement shown, the upper part of the body is set in front of the lower part of the body and this requires the upper body to accommodate the hanger support arm in at least two positions - one inverted with respect to the other. The 'lower' body may also have provision to accommodate the hanger support arm if desired (as shown dotted) as this would allow a second hanger support arm to be provided when the clothes hanger support is used in its extended mode. The position of the pivot and the locking facility may be reversed to that shown in the Figure 36 – i.e. item 38 may be set at the position shown for item 39 and vice versa. Figure 37 shows the embodiment in its 'folded' condition and used as a simple non-extending clothes hanger support.

Figure 38 shows a variation on the embodiment shown in Figure 36, utilising the same pivoting arrangement, but with the 'upper body (28) being set behind the 'lower' body. For non-extended use, this arrangement has the advantage that the hanger support arm is accommodated on the lower body, leaving more room on the 'upper body' to provide additional locations at which the hanger support arm may be fitted. This allows as low a position to be used as is compatible with the clothes being supported which improves the clothes hanger support's stability when used in its extended mode. Figure 39 shows this embodiment when folded and used as a simple non-extending clothes hanger support.

The embodiments referenced in Figures 34 to Figure 39 may all incorporate reversible hanger support arms (1) and packings (5) and (6) to allow the clothes hangers to be optimised for use with both left hand and right handedly hung doors.

Figure 40 shows another embodiment of the invention in which the elevation of the clothes hangers can be made to be higher than the elevation of the support formation. It is essentially an adaptation of the embodiments shown in Figures 10, 16, 17 or 18 in which the body of the clothes hanger support (2) is divided into three linked parts - connected together end to end - so that, effectively, the body is extended with folding extensions (28) and (28a). A single extension would be functional, but the double extension arrangement allows a more compact arrangement when not in use. Alternatively more than two extensions could be utilised.

In high elevation use (assuming two extensions are adopted as shown in the figure) the body extensions (28) and (28a) are arranged so as to extend to a higher elevation than the support formation, the connections being arranged to provide rigidity when fully extended so as to resist the forces and moments induced by the clothes hangers. The connections could be any suitable form of dismantleable or hinged connection or a combination of both (the figure showing all hinged connections).

The support formation (3) is shown as being of the rotating kind to allow the clothes hanger support to be used with both point and linear protrusions – the figure indicating a central heating radiator (36). However, a non-rotating or reversible support formation could be used, but the clothes hanger support would be limited to use on point type protrusions such as conventional door handles.

The body extensions (28) and (28a) are attached to the bottom of the ‘main’ body (2) and one or more further dismantleable connections (29) or (29a) (which preferably would be a quick release arrangement such as a ‘twist lock’) are provided between one of the body extensions and either the upper part of the ‘main’ body or the support formation. If the upper connection is provided at the support formation, then a slot (30) may need to be provided in a body extension to accommodate the support formation when set in the position shown.

Additional provision to allow the clothes hanger support arm (1) to be located in more than one location/height may also be made in any of the body extensions as desired. Figure 41 shows the embodiment when folded for storage - with a detachable clothes hanger support arm (1) stowed in a rebate (21) in the packing (5).

In instances where the extended height is not required, the clothes hanger support arm (1) may be positioned in the main body (2) and the body extension(s) left hanging below the main body as shown in Figure 42 where support is shown this time as taken from a conventional door handle (4).

Alternatively, by arranging that the dismantleable connection can be made regardless of whether the body extensions are folded open or closed and a slot provided to both body extensions then, by attaching the hanger support arm to the lower body extension, the clothes hanger support may be used on door handle type protrusions without fully unfolding it - as shown in Figure 43. If a detachable connection is utilised instead of the lower hinge (31), then the extensions are simply removable from the main body (2) leaving a basic door type hanger arrangement for non-high elevation use.

Figure 44 shows an adaptation of the embodiment shown in Figure 40 and again incorporates one or more dismantleable connections (at either or both (29) and (29a)) between one of the body extensions and either the upper part of the 'main' body (2) or the support formation (3). In this arrangement, the down load from the clothes hangers is taken directly by the dismantleable connection arrangement, thereby eliminating the need for a down load resisting connection between the lower end of the 'main' body (2) and body extension (28). Accordingly, the body 'extensions' are physically separable from the main body / support formation and may be supplied independently of a more basic rotating support formation, removable hanger support arm type clothes hanger support.

Figure 45 shows another embodiment of the invention in which the elevation of the clothes hangers can be made to be higher than the elevation of the support formation. It is essentially another adaptation of the embodiment shown in Figure 40, but with a single 'extension' to the body and one or more protrusions (33) being provided to the front face of the 'main' body of the clothes hanger support (2). A mechanical means is required to keep the main body 'closed' when used as a 'hanging' type clothes hanger support and the figure shows a simple twist lock connecting arrangement (34) for this purpose. A rotating support formation (3) is shown - however, a non-rotating support formation arrangement may also be used.

Figure 46 shows the arrangement when the rotating support formation (3) is positioned flush with the main body, the mechanical restraint twist locks (34) adjusted, the main body extension (28) unfolded and the arrangement inverted to enable the clothes hangers to be supported above the protrusion as in the case of taking support from the top of a central heating radiator (36) which may be too low to use for a hanging type arrangement.

As an alternative to the fully revolving twist lock arrangement as shown in the figure, the protrusions on the face of the body could be of fixed geometry and profiled so as to naturally engage a horizontally elongate supporting protrusion - or, alternatively, a totally independent support formation could be provided. However, in either situation mechanical means of keeping the body closed when used as a hanging type clothes hanger support would still be required. Soft and / or high friction cushioning (37) may be provided on the side of the support formation where it comes into contact with its support surface.

With careful attention to connection design, at least another body extension could be added to the configuration shown in Figures 45 and 46 as indicated in Figures 47 and 48 to increase both the potential height of the unit whilst at the same time making it more compact when not in use.

Figure 49 shows an adaptation of the embodiment shown in Figure 45, but with the protrusions (33) being provided to the body extension (28) rather than to the main body (2). The same principle of locking together and releasing the parts of the body applies, but in this arrangement, when used with the body extended, the clothes hanger support does not have to be inverted to take support from radiators etc. and the soft or high friction facing (37) is attached to the body extension rather than the support formation (as shown in Figure 50 which shows a view of the back of the clothes hanger support when looking from the direction of the door together with a side view). Although not shown in a figure, the arrangement is also suited to having two body extensions rather than the one shown in the figure.

In the embodiments shown in Figures 40 – 50 that incorporate a body to ‘body extension’ jointing hinge or ‘body extension’ to ‘body extension’ hinges, the hinges may be replaced by any other suitable means of attaching the two components. This could include the rotating type arrangement illustrated in Figure 36 as an alternative to a conventional hinge. Another alternative could be the use of dismantleable joints or any appropriate mechanically interlocking arrangement.

The embodiments shown in Figures 40 to 50 inclusive also have the potential to be used on central heating radiators and use may be made of the profiling that is a common feature on plate type radiators to improve the stability of the clothes hanger support. Accordingly, for these embodiments body packing / body orientation adjustment (shown as (5) or (37) in the figures) would preferably be provided in discreet locations and be of a size and profile to allow the packing / body orientation to seat within the recesses as indicated in Figure 51 (which represents a sectional plan view through such a radiator). However, provided the packing / body orientation fits within the recesses as indicated by item (5a) in Figure 51 good restraint can still be obtained. Preferably the facings (7) of the packing / body orientation adjustment which abut the radiator (36) will be faced with high friction material. It would also be preferable for the position of the packing / body orientation to be adjustable across the width of the body. This could be achieved in a many ways, e.g. by making the items detachable and providing a range of attachment points across the width of the body, providing mounting slots for the packings to screw into, attaching the dowels by non bonded dowels and providing additional holes in the body.

Adjustment of the position of the multi-purpose protrusions (shown as items (33) in figures 45 to 50) across the width of the body would also be preferable as this would allow them to align with the top cover plates fitted to some more modern radiators and thereby further enhance stability of the unit.

The clothes hanger supports so far described are nominally stable (particularly if high friction contact surfaces and / or the packing / body orientation adjustment is arranged so as to engage with the radiator face profile). However, it may be preferred for the embodiments that are capable of supporting the coat hangers above the level of central heating radiators to be provided with some form of additional stabilisation. Figure 52 shows an embodiment similar to that shown in Figure 45 that is provided with stay arms (54) for additional stabilisation, although stabilisation could be applied to any embodiment in which a part of the body may extend above a transversely elongate supporting ‘protrusion’ such as a radiator. The stay arms are shown connected to the body and extending down to take restraint from the top of the radiator. A means of fixing the stay arms in their working position is required, and this could be by providing inherent rigidity in the connection to the body or body extension (28) or by providing additional triangulating ties (55) back to one of the body parts (as shown in the figure) or any other suitable arrangement. Whatever approach is adopted, it would be preferable for the stabilising arrangement to fold up or to be detachable to make the unit more compact for storage. For detachable items, provision for stowage on the clothes hanger support itself may be provided. . Any other suitable method of providing stability could also be used, for example utilising cantilevered horizontal stay arms.

Figure 53 shows an embodiment of the invention in which the top face of the clothes hanger support arm is provided with a means of restricting unwanted movement of the hangers along it by, for example, appropriately profiling (17) the top surface of the member or providing the top surface of the member with a soft or high friction contact surface. This facility may be applied to all embodiments of the clothes hanger support herein described.

CLAIMS

1. A clothes hanger support as a minimum comprising a support formation, an elongate clothes hanger support arm and a body, with the support formation and the hanger support arm each being attached to the body such that, in use ;

the clothes hanger support arm ,being of sufficient length to accommodate a plurality of coat hangers, extends from the body; and

the support formation, when viewed from the unattached end of the hanger support arm, incorporates (in the general direction, but not necessarily along the exact line of the elongate axis of hanger support arm) an opening which is fully closed both upwardly and to at least one side for the purpose of allowing the support formation to be readily and removably arranged on, over, around or against an existing protrusion from an existing surface and

the support formation, in addition to being the principal source of vertical restraint, is also capable of taking horizontal restraint from the protrusion purely as a result of physical engagement between the enclosing surface of the support formation opening and the protrusion from which it takes support and

the clothes hanger support is arranged to take horizontal restraint from one or more existing surfaces in addition to the contact between the support formation and the protrusion.

2. A clothes hanger support as claimed in Claim 1, in which the opening in the support formation is wholly or partially open to the left but closed to the right when viewed from the unattached end of the hanger support arm.
3. A clothes hanger support as claimed in Claim 1, in which the opening in the support formation is wholly or partially open to the right but closed to the left when viewed from the unattached end of the hanger support arm.
4. A clothes hanger support as claimed in Claim 1, in which the opening in the support formation is fully closed both to the left and right when viewed from the unattached end of the hanger support arm.
5. A clothes hanger support as claimed in Claim 1 or Claim 4 in which the support formation is an integral part of the body.
6. A clothes hanger support as claimed in Claim 2 or Claim 3 in which the support formation is an integral part of the body.

7. A clothes hanger support as claimed in Claim 1 or Claim 4 in which the support formation and the body are separate items, being interconnected at one or more locations with at least one connection being made to the upper part of the body.
8. A clothes hanger support as claimed in Claim 1 or Claim 4 in which the support formation and the body are separate items, being interconnected at one or more locations, with at least one connection being made to the middle or lower part of the body.
9. A clothes hanger support as claimed in Claim 2 or Claim 3 in which the support formation and the body are separate items, being interconnected at one or more locations with at least one connection occurring on the upper part of the body.
10. A clothes hanger support as claimed in Claim 2 or Claim 3 in which the support formation and the body are separate items, being interconnected at one or more locations with at least one connection occurring on the middle or lower part of the body.
11. A clothes hanger support as claimed in Claim 1 or Claim 4 in which the support formation and the body are separate items sharing a single common, non-folding axis of rotation, the axis of rotation being defined by the axis of rotation of a load bearing articulating or swivel joint arrangement by which the two items are joined together.
12. A clothes hanger support as claimed in Claim 2 or Claim 3 in which the support formation and the body are separate items sharing a common, non-folding axis of rotation, the axis of rotation being defined by the axis of rotation of a single articulating connection or swivel joint arrangement by which the two items are joined together.
13. A clothes hanger support as claimed in Claim 2 or Claim 3 in which the support formation and the body are separate items connected by a folding type hinge arrangement to allow the orientation of the support formation to be adjusted relative to that of the body.
14. A clothes hanger support as claimed in Claim 2 or Claim 3 in which the support formation and the body are separate items, the support formation being detachable with the connection between it and the body allowing the support formation to be reversibly attached to the body such that the open side of the support formation may be set to either the left or right side of the clothes hanger support as required when viewed from the unattached end of the hanger support arm.
15. A clothes hanger support as claimed in Claim 14 in which the support formation and body are connected via one or more interconnecting components.

16. A clothes hanger support as claimed in Claim 2 or Claim 3 or Claim 6 or Claim 9 or Claim 10 or Claim 12 or Claim 13 or Claim 14 or Claim 15 in which one or more of the physical dimensions of the support formation are adjustable to suit different shaped and / or sized support protrusions.
17. A clothes hanger support as claimed in Claim 2 or Claim 3 or Claim 6 or Claim 9 or Claim 10 or Claim 12 or Claim 13 or Claim 14 or Claim 15 in which the support formation is profiled to provide two or more seating locations for the protrusion.
18. A clothes hanger support as claimed in Claim 1 or Claim 4 or Claim 5 or Claim 7 or Claim 8 in which the support formation comprises an element that is flexible in at least two planes in that it offers high resistance to tensile forces, but little resistance to bending forces.
19. A clothes hanger support as claimed in Claim 1 or Claim 4 or Claim 5 or Claim 7 or Claim 8 in which the support formation comprises an elongate flexible element offering high resistance to tensile forces, but little resistance to bending forces.
20. A clothes hanger support as claimed in Claim 1 or Claim 4 or Claim 5 or Claim 7 or Claim 8 in which the support formation comprises an elongate flexible element offering high resistance to tensile forces, but little resistance to bending forces and the length of which is adjustable.
21. A clothes hanger support as claimed in any preceding claim, in which the clothes hanger support arm extends from a point on the body at an elevation equal to or below the highest of the points of contact between the support formation and the existing protrusion, when in use.
22. A clothes hanger support as claimed in any preceding claim in which the clothes hanger support arm extends from a point on the body at an elevation equal to or above the highest of the points of contact between the support formation and the existing protrusion, when in use.
23. A clothes hanger support as claimed in Claim 22 in which the body comprises two or more separate parts that, in use, are attached together.
24. A clothes hanger support as claimed in Claim 23 in which two or more of the parts of the body are connected in such a way as to allow the parts to be folded together or extended as required.
25. A clothes hanger support as claimed in Claim 23 or Claim 24 in which one or more of the parts of the body are detachable.

26. A clothes hanger support as claimed in any preceding claim, in which,
- the body comprises two or more parts, connected end to end, and
- the support formation is attached to, or incorporated into, a terminating / end part of the body arrangement and
- the part or parts of the body that neither incorporate nor are attached directly to the support formation may be arranged to extend upwards from the connection at the lower end of that part of the body to which the support formation is attached or incorporated into and
- one or more releasable connections are provided between either
- one or more parts of the body not otherwise attached to the support formation and the support formation or
- one or more parts of the body not otherwise attached to the support formation and that part of the body that is otherwise attached directly to, or incorporates, the support formation or
- one or more parts of the body not otherwise attached to the support formation and both the support formation and the part of the body that is otherwise attached directly to, or incorporates, the support formation and
- it is arranged that one or more of the parts of the body may take horizontal restraint either directly or indirectly from the surface or surfaces against which the clothes hanger support abuts and
- arrangement is made for the hanger support arm to be detachably attached to at least one of the parts of the body.
27. A clothes hanger support as claimed in Claim 26 in which two or more of the parts of the body are connected in such a way as to allow the parts to be folded together or extended as required.
28. A clothes hanger support as claimed in Claim 26 or Claim 27 in which one or more of the parts of the body are detachable.
29. A clothes hanger support as claimed in any of Claims 1 to 25 inclusive which,
- incorporates an additional and separate secondary body component that directly or indirectly abuts the body and

the secondary body extends upwards to an ultimate elevation higher than that of the support formation and

one or more releasable connections are provided between either

the secondary body and the support formation or

the secondary body and that part of the body that is otherwise attached directly to, or incorporates, the support formation or

the secondary body and both the support formation and the part of the body that is otherwise attached directly to, or incorporates, the support formation and

30. A clothes hanger support as claimed in Claim 29 in which the secondary body comprises two or more separate parts, interconnected in use.
31. A clothes hanger support as claimed in Claim 30 in which two or more of the parts of the secondary body are connected in such a way as to allow the parts to be folded together or extended as required.
32. A clothes hanger support as claimed in Claim 30 or Claim 31 in which one or more of the parts of the secondary body are detachable.
33. A clothes hanger support as claimed in any of Claims 1 to 25 inclusive in which

the body comprises two or more parts, connected end to end, and

the support formation is attached to, or incorporated into, a terminating / end part of the body arrangement and

the part or parts of the body that neither incorporate nor are attached directly to the support formation may be arranged to extend upwards from that part of the body to which the support formation is attached or incorporated into and

it is arranged that one or more parts of the body may take horizontal restraint either directly or indirectly from the surface or surfaces against which the clothes hanger support abuts and

the part of the body that is either directly attached to the support formation or incorporates the support formation is provided with one or more adjustable connecting arrangements that, when appropriately adjusted, may

provide additional connection between that part of the body and at least one other part of the body so as to fix the relative positions of the two parts of the

body connected by the adjustable connecting arrangement or

release the adjustable connection thereby allowing re-arrangement of the body to adjust the body's overall effective length or

form part of an alternative support formation that may be used when the body is suitably extended and the clothes hanger support inverted so that the non-alternative support formation is at a lower elevation than the alternative support formation and

arrangement is made for the hanger support arm to be removably attached to at least one of the parts of the body.

34. A clothes hanger support as claimed in Claim 33 in which a second support formation is provided for use when suitably extended and inverted, thereby obviating the need for the adjustable body connection arrangements to serve a support formation function.
35. A clothes hanger support as claimed in Claim 33 or Claim 34 in which two or more of the parts of the body are connected in such a way as to allow the parts to be folded together or extended as required.
36. A clothes hanger support as claimed in Claim 33 or Claim 34 or Claim 35 in which one or more of the parts of the body are detachable.
37. A clothes hanger support as claimed in any of Claims 1 to 25 inclusive in which

the body comprises two or more parts, connected end to end, and

the support formation is attached to, or incorporated into, a terminating / end part of the body arrangement and

the part or parts of the body that neither incorporate nor are attached directly to the support formation may be arranged to extend upwards from that part of the body to which the support formation is attached or incorporated into and

it is arranged that one or more parts of the body may take horizontal restraint either directly or indirectly from the surface or surfaces against which the clothes hanger support abuts and

one or more of the parts of the body that neither incorporates the support formation nor is attached directly to the support formation is provided with one or more adjustable connecting arrangements that, when appropriately adjusted, may

provide additional connection between that part of the body and either the support formation or the part of the body that is either directly attached to the support formation or incorporates the support formation so as to fix the relative positions of the two parts connected by the adjustable connecting arrangement or

release the adjustable connection thereby allowing re-arrangement of the body to adjust the body's overall effective length or

form part of an alternative support formation that may be used when the body is extended and the clothes hanger support inverted so that the non-alternative support formation is at a higher elevation than the alternative support formation and

arrangement is made for the hanger support arm to be removably attached to at least one of the parts of the body.

38. A clothes hanger support as claimed in Claim 37 in which a second support formation is provided for use when suitably extended, thereby obviating the need for the adjustable body connection arrangements to serve a support formation function.
39. A clothes hanger support as claimed in Claim 37 or Claim 38 in which two or more of the parts of the body are connected in such a way as to allow the parts to be folded together or extended as required.
40. A clothes hanger support as claimed in Claim 37 or Claim 38 or Claim 39 in which one or more of the parts of the body are detachable.
41. A clothes hanger support as claimed in any of Claims 26 to 40 inclusive in which the stability of the clothes hanger support may be enhanced by providing a stabilisation arrangement that provides additional points of contact between the clothes hanger support and that from which it is supported and / or takes restraint, the distance between the points of contact between the stabilisation arrangement and that with which it takes restraint being greater than either the width of the body or the width of the support formation.
42. A clothes hanger support as claimed in Claim 41 in which the stabilisers may be repositioned for more compact storage.
43. A clothes hanger support as claimed in Claim 41 or Claim 42 in which the stabilisation arrangement folds up to make the clothes hanger support more compact when the stabilisation facility is not required to be used.

44. A clothes hanger support as claimed in Claim 41 or Claim 42 or Claim 43 in which the stabilisation arrangement is detachable to make the clothes hanger support more compact when the stabilisation facility is not required to be used.
45. A clothes hanger support as claimed in Claim 44 in which provision is made on the clothes hanger support for stowage of the components of the stabilisation arrangement when the stabilisation facility is not required to be used.
46. A clothes hanger support as claimed in any preceding claim in which an articulation or hinge facility is provided between the body and the hanger support arm in such a way as to provide effective support of the clothes hangers, but allows the clothes hanger support to be folded up for storage purposes when not in use.
47. A clothes hanger support as claimed in any of Claims 1 to 45 inclusive in which the clothes hanger support arm has articulating or hinged connections at two locations and is supported at one articulating / hinge location from either the body of the clothes hanger support, or an extension to the body of the clothes hanger support, and at the other location by a strut arrangement that provides a second triangulating support for the clothes hanger support arm either back to the body of the clothes hanger support or to an extension to the body.
48. A clothes hanger support as claimed in any preceding claim where the clothes hanger support arm is detachable from the body.
49. A clothes hanger support as claimed in Claim 48 in which provision is made for the clothes hanger support arm to extend from two or more positions on the body.
50. A clothes hanger support as claimed in Claim 49 in which provision is made for the clothes hanger support arm to extend from points on the body both above and below the highest of the points of contact between the support formation and the existing protrusion with which it comes into contact when in use.
51. A clothes hanger support as claimed in any preceding claim in which the clothes hanger support arm may extend from either side of the body.
52. A clothes hanger support as claimed in any preceding claim that incorporates means of adjusting the orientation of the hanger support arm relative to the body.
53. A clothes hanger support as claimed in Claim 52 in which the means of adjusting the angle of the hanger support arm relative to the body involves the use of packs or spacers.
54. A clothes hanger support as claimed in Claim 52 in which the means of adjusting the angle of the hanger support arm relative to the body involves the use of a screw

thread jacking system.

55. A clothes hanger support as claimed in any preceding claim that incorporates means of adjusting the angle of the body relative to the existing surface or surfaces with which the coat hanger support abuts.
56. A clothes hanger support as claimed in Claim 55 in which the means of adjusting the angle of the body relative to the existing surface or surfaces with which the coat hanger support abuts allows adjustment regardless of which way round the body is positioned in relation to the abutted surface or surfaces.
57. A clothes hanger support as claimed in Claim 55 or Claim 56 in which the means of adjusting the angle of the body relative to the existing surface or surfaces with which the coat hanger support abuts involves the use of packs or spacers.
58. A clothes hanger support as claimed in Claim 55 or Claim 56 or Claim 57 in which the means of adjusting the angle of the body relative to the existing surface or surfaces with which the coat hanger support abuts is, at least in part, detachable.
59. A clothes hanger support as claimed in Claim 55 or Claim 56 or Claim 57 or Claim 58 in which one or more of the means of adjusting the angle of the body relative to the existing surface or surfaces with which the coat hanger support abuts may be set in more than one position across the width of the body.
60. A clothes hanger support as claimed in any preceding claim in which one or more of the areas of contact between the clothes hanger support and the existing surface or surfaces with which the coat hanger support abuts are shaped so as to physically engage with a profiled surface and thereby enhance the transmission of transverse forces between the existing surface(s) and the clothes hanger support.
61. A clothes hanger support as claimed in any preceding claim in which the clothes hanger support arm is provided with a means to restrict unwanted movement of a clothes hanger along the length of the clothes hanger support arm.
62. A clothes hanger support as claimed in any preceding claim that incorporates a means to prevent the clothes hangers sliding off the end of the clothes hanger support arm.
63. A clothes hanger support as claimed in any preceding claim that incorporates means to reduce or eliminate damage to or disfigurement of the surfaces of any or all other bodies or surfaces into which the clothes hanger support may come into contact.

64. A clothes hanger support as claimed in any preceding claim that is provided with high friction type material at any or all points of contact with other surfaces or bodies.
65. A clothes hanger support as claimed in any preceding claim that folds up for more compact storage.
66. A clothes hanger support as claimed in any preceding claim that incorporates one or more components that fold up for more compact storage.
67. A clothes hanger support as claimed in any preceding claim that utilises one or more detachable components to achieve compliance with one or more of the preceding claims.
68. A clothes hanger support as claimed in any preceding claim in which one or more detachable components may be attached in one or more different positions thereby providing more flexibility of use or more secure and more compact storage of the clothes hanger support when not in use.
69. A clothes hanger support as claimed in any preceding claim that incorporates extending or telescopic components.
70. A clothes hanger support as claimed in any preceding claim in which more than one clothes hanger support arm is provided.
71. A clothes hanger support as claimed in any preceding claim in which any component is made from metal, polymer, plastic, wood, plywood, any composite type material, any extruded material, rubber, fibre, rope, cord or any combination of some or all of these materials.
72. A clothes hanger support substantially as herein described above and illustrated in the accompanying drawings.

Application No: GB0609010.4

Examiner: Philip Silvie

Claims searched: 1-71

Date of search: 21 July 2006

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X	1 at least	US 1603956 A (JOHNSON) see figs. 1, 2
X	1 at least	US 2070408 A (DIETZEL) see figs. 1, 3
X	1 at least	US 2150826 A (APPLIANCE PRODUCTS) see figs. 1, 2
X	1 at least	US 6267257 A (DEBRUYIN) see figs. 1, 2
X	1 at least	US 1480829 A (MORAN) see figs. 1-4
X	1 at least	CH 000691162 A (BAECHLI) see fig. 6 and WPI Abstract Accession No. 2001-344095[37]

Categories:

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^X :

E2A

Worldwide search of patent documents classified in the following areas of the IPC

A47G; A47K

The following online and other databases have been used in the preparation of this search report

WPI, EPODOC