

(19)



(11)

**EP 1 558 820 B1**

(12)

**EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:  
**13.12.2017 Bulletin 2017/50**

(51) Int Cl.:  
**E03C 1/29 (2006.01)**

(21) Application number: **03775533.7**

(86) International application number:  
**PCT/GB2003/004890**

(22) Date of filing: **10.11.2003**

(87) International publication number:  
**WO 2004/042155 (21.05.2004 Gazette 2004/21)**

(54) **SHOWER TRAP**

SIPHON FÜR EINE DUSCHWANNE

SIPHON POUR DOUCHE

(84) Designated Contracting States:  
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR**

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(30) Priority: **08.11.2002 GB 0226069**

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(43) Date of publication of application:  
**03.08.2005 Bulletin 2005/31**

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**EP 1 558 820 B1**

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**Description**

## FIELD OF THE INVENTION

**[0001]** The present invention relates to an adjustable waste trap. In particular, but not exclusively, the invention relates to an adjustable waste trap for use in shower trays, or other applications where cleaning access from above is desirable.

## BACKGROUND OF THE INVENTION

**[0002]** Showers are frequently assembled having a waste trap connected to a water drain located within a shower tray. A typical trap features a body which is located under the drain and is clamped to the shower tray by a threaded flanged collar which extends through the drain and engages a corresponding thread on the trap body. Alternatively, the collar may be clamped to the trap body by means of separate screws. The trap provides a water seal to prevent noxious gases from backing up the waste pipe and entering the shower enclosure. Shower traps may be prone to becoming blocked or clogged due to shampoo residue and hair being washed into the trap. Conventional traps only permit access from beneath the trap, which given that many shower trays are of restricted height can make it very difficult if not impossible for users to access the trap for cleaning or maintenance purposes.

**[0003]** For this reason, a modified form of shower trap is known, in which the water seal is provided by a tube which descends into the trap body from an inlet covered by a removable grid, and which tube is removable from the body through the inlet. The tube forms a water seal at the lower end thereof, and yet may be removed from the inlet when necessary, to permit access to the interior of the trap for cleaning and maintenance. The tube is locked into position by a bayonet-type fitting, by engaging a series of protrusions extending from a correspondingly shaped locking sleeve. The upper end of the tube is received within the sleeve, which is formed integrally with the body and extends into the body concentric with the inlet.

**[0004]** However, this modified shower trap has disadvantages. The locking mechanism may be difficult to release and engage for individuals of restricted dexterity. Further, with use of the trap, the build up of material within the trap may make the locking mechanism still harder to use. The locking sleeve also extends across the trap outlet, formed in the side of the trap body, such that it is not possible to gain access to the outlet for cleaning.

**[0005]** In addition, in use the location of the tube within the body is fixed by the position of the locking sleeve. This means that it may be difficult to use the trap with a wide range of shower trays, whose thickness can range from a few millimetres to tens of millimetres. With thicker shower trays, the trap body inlet will be located some distance below the floor of the shower tray such that access to the removable tube becomes even more difficult.

DE 297 11 690 U1 discloses a waste trap according to the preamble of claim 1, and in particular describes a waste trap comprising a housing 1 with an inlet and an outlet, a stand pipe 17 extending from the inlet into the housing. The stand pipe being removable through the inlet. The waste trap further comprises a dip pipe 11, support on a shoulder 13 defined by the housing. The dip pipe cooperates with the stand pipe to form a water seal within the housing when in use.

**[0006]** CHA193865 discloses a siphon with an overflow pipe covered by a bell; with a liquid seal between the overflow pipe and the bell 10. The overflow pipe is sealed to an outer pipe by a conical seat.

**[0007]** It is among the objects of embodiments of the present invention to obviate or alleviate these and other disadvantages of known shower traps.

## SUMMARY OF THE INVENTION

**[0008]** According to a first aspect of the present invention, there is provided a waste trap according to the appended claims.

**[0009]** Since the sleeve and tube in combination provide a water seal, it is possible for the tube to be moved upwards or downwards relative to the sleeve without losing the water seal thereby formed. Thus the axial location of the tube need not be fixed relative to the body, and the waste trap may be readily used with shower trays of different thicknesses. Further, in preferred embodiments, the provision of a sleeve which is fixed to the body and serves to locate the tube in the body allows the tube to be used without a separate locking ring, which both avoids the obstruction caused by the locking ring in existing shower traps, and makes it easier for users of restricted dexterity, and indeed any users, to remove the tube from the trap.

**[0010]** Preferably the tube extends below the outlet on the body.

**[0011]** Preferably the tube is vertically movable within the body. Although the tube may be generally freely movable, it is preferred that some form of retaining means is present to restrict the freedom of movement of the tube. For example, the tube may be threaded and received in a correspondingly-threaded portion of the body; or the tube may be provided with a ratchet arrangement to restrict the freedom of movement. In a preferred embodiment of the invention, the tube is slidably received within a trap body retaining collar, which collar is itself externally threaded, or otherwise profiled, and engages with a cooperating thread profile provided on the trap body. In other embodiments, the collar may be securable to the trap body by appropriate fasteners, or the like. The provision of such a collar allows the tube to be moved axially relatively straightforwardly, and if desired the tube may be withdrawn from the collar.

**[0012]** Preferably the trap includes a flange on an upper portion thereof, for engaging with a shower tray or the like. The flange may be used to overlie a portion of

a shower tray or flooring material, to clamp the tray to the trap. The flange may be located on the body of the trap, or on the tube, or collar if present.

**[0013]** According to the invention, the sleeve is located towards a lower portion of the body; conveniently within the lowermost portion thereof. The sleeve is spaced from a lower surface of the body, to allow water outflow from within the sleeve. The sleeve is spaced from a lower surface of the body (12) by support pins and pin-receiving members. Preferably the sleeve receives an end of the tube. This arrangement effectively extends the length of the tube, so providing a relatively straightforward means whereby the location of the lower end of the tube may be varied without disrupting the water seal. Alternatively, the sleeve may be received within an end of the tube.

**[0014]** The waste trap may be designed to be permanently open, for use with, for example, showers; or may be intended for use with a sealing mechanism such as a plug. An integral plug may be provided. Where the trap is permanently open, the trap may further comprise a cover for restricting access to the interior of the trap. The cover may be in the form of a shield or dome member.

**[0015]** Preferably, the tube comprises a portion adapted to be gripped by a user for removal of the tube from the trap body.

**[0016]** Conveniently the tube comprises a portion of reduced diameter received within a portion of increased diameter. According to the invention, the tube is telescoped in order to adjust the length thereof. A portion of the tube may be freely movable under gravity, such that the tube automatically adjusts in length. In other embodiments the tube may be axially extendable, for example the tube may have at least a portion of wall of concertina-like form.

**[0017]** The tube may be received within a trap body retaining collar, which collar is vertically movable within the trap body inlet. Conveniently the collar is threaded, and engages with a corresponding thread provided on the inlet. Thus, as the collar is moved vertically, the length of the tube may be adjusted correspondingly. The tube may be fixed within the collar, or may be removable therefrom.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0018]** These and other aspects of the present invention will now be described by way of example only and without limitation, with reference to the accompanying drawings, in which:

Figure 1 shows a cross-sectional view of a shower trap in accordance with an embodiment of the present invention;

Figure 2 shows a variant form of shower trap in accordance with a further embodiment of the present invention; and

Figure 3 shows a yet further embodiment of the present invention.

#### DETAILED DESCRIPTION OF THE DRAWINGS

**[0019]** Referring first of all to Figure 1, this shows a shower trap 10 comprising a body 12 defining an inlet 14 and an outlet 16. The body is formed from two injection-moulded plastics parts, with the lower part 18 forming the lower end of the body 12. The lower part 18 of the body carries three spaced pin-receiving members 20, each of which receives a support pin 22 provided on the underside of a tubular sleeve member 24 which is disposed within the lower part of the body 12. The sleeve member 24 extends upward within the body 12 to a level slightly above the lower edge of the outlet 16.

**[0020]** Extending into the body 12 from the inlet 14 is an inlet tube 26, the lower end of which is received in a snug fit within the sleeve member 24. In alternative embodiments of the invention, a snug fit may not be necessary, and a seal may be maintained simply by means of water within the trap. The upper end of the inlet tube 26 is received in a snug fit within an externally threaded upper collar member 28, which engages with a correspondingly-threaded portion of the inlet 14. A sealing O-ring 29 is carried in an annular groove in the upper portion of the tube 26 and engages with an inner face of the collar member 28. The threaded collar member 28 includes an upper flange 30, which cooperates with a corresponding flange 32 and seal 33 provided on the inlet 14 to clamp and engage with an edge of a shower tray drain opening 34. The flange 30 of the threaded collar member 28 also carries a series of six spaced supports 36 on which rest a metal domed shield member 38. The shield member 38 is attached to a spider 40 which is integral with the tube 26.

**[0021]** In use, the trap 10 may be adjusted and cleaned as follows. On installation of the trap 10, the threaded collar 28 is rotated to bring the collar 28 and the trap body 12 together and form a water-tight seal between the flanges 30, 32 and the shower tray 34. The shower tray 34 is thus clamped between the threaded collar 28 and the inlet 14. In alternative embodiments of the invention, the shower tray may be clamped by securing the flanges 30, 32 together with separate fasteners, such as screw members. The extent to which the threaded collar 28 extends into the trap body 12 will vary depending upon a number of factors, including the thickness of the shower tray 34 and the seal 33; the extent to which the tube 26 extends into the body 12 will vary correspondingly, as will the extent to which the lower end of the tube 26 extends into the lower sleeve 24. However, the lower sleeve 24 and tube 26 are dimensioned such that the lower end of the tube is always within the sleeve, within the range of shower tray and seal dimensions normally encountered.

**[0022]** As water passes through the trap 10, it flows down the tube 26, through the lower sleeve 24, and into the lower portion of the body 12. Water above the level of outlet lip 42 will exit the trap through the outlet 16; the remaining water will remain within the trap 10 to form a water seal between the tube 26 and sleeve 24, and the

outlet 16, so preventing backflow of noxious gases.

**[0023]** Thus, the trap 10 of the present invention may easily accommodate shower trays of a range of thicknesses.

**[0024]** When a user wishes to clean the trap 10, it is necessary simply to lift the tube 26 from the inlet 14, by gripping and pulling on the shield member 38, to allow access to the interior of the trap 10. In the present embodiment, if desired, the lower sleeve 24 may also be removed in the same manner, since the pins 22 are held only by an interference fit. The user may thus have relatively unrestricted access to the trap 10 as well as to the outlet 16, since the upper threaded collar 28 does not restrict access to the outlet, unlike other known shower traps.

**[0025]** Referring now to Figure 2, this shows a further embodiment of a shower trap in accordance with the present invention. The trap 110 functions in a similar manner to the trap of Figure 1, with a tube 126 which is movable within a lower sleeve 124, and an adjustable threaded flanged collar 114 which may be used to clamp a shower tray to the body of the trap. The tube 126 further includes a crossbar 144 across the centre thereof at the upper end, and a conventional outlet grid 146 located above the crossbar 144. Adjustment of the collar 114 and tube 126 is carried out in the same manner as the trap of Figure 1, while the crossbar 144 may be gripped and pulled upwards to remove the tube from the trap. The grid 146 may be either separate from the tube, and removed separately, or may be made integral therewith, and so may be grasped to remove the tube from the trap.

**[0026]** A further alternative trap is shown in Figure 3. This trap 210 again operates in a similar manner to the previously-described traps, and further includes an overflow inlet 248 which may in use be connected to an overflow for a deep shower tray, bath, basin, or the like. In addition to the overflow inlet 248, the trap 210 includes a grid 246 set within the tube 226, with a 'clicker'-type plug 250 secured by threaded engagement with the grid 246. The plug 250 may be opened or closed with a simple depressing action, which adjusts the plug between an open and a closed position. This particular trap 210 may be used within bathtubs or deep shower trays requiring overflow outlets.

**[0027]** It will be apparent to those of skill in the art that the above-described embodiments are merely exemplary of the present invention, and that various modifications and improvements may be made thereto without departing from the scope of the invention as defined by the appended claims. For example, the lower sleeve 24 may initially be mounted to the lower end of the tube 26, and the sleeve 24 and the tube 26 may be pushed together to the correct adjustment when the tube 26 is first pushed into the installed trap body 12. Alternatively, the sleeve 24 may fit within the tube 26. In a further variation, the lower sleeve 24 may be permanently mounted to the lower end of the tube 26, rather than to the base of the trap body, such that the tube and sleeve may act as a single

telescoping unit for adjustment of tube length.

## Claims

1. A waste trap (10, 110, 210) comprising:
  - a body (12) defining an inlet (14) and an outlet (16),
  - a tube (26, 126, 226) extending from the inlet (14) into the body (12), the tube (26, 126, 226) being removable from the body (12) through the inlet (14), and
  - a sleeve (24, 124) for location within the body (12) for cooperation with a lower end of the tube (26, 126, 226), such that the tube (26, 126, 226) is telescoped in order to adjust the length thereof,
  - wherein when in use, the tube (26, 126, 226) and sleeve (24, 124) in combination form a water seal within the body (12); and the sleeve (24, 124) is removable from the body (12) in the same manner as the tube (26, 126, 226) through the inlet (14) to allow access to the interior of the trap (10, 110, 210); and wherein the sleeve (24, 124) is located towards a lower portion of the body (12) and the sleeve (24, 124) is spaced from a lower surface of the body (12) so as to allow water outflow from within the sleeve (24, 124), **characterised in that** the sleeve (24, 124) is spaced from a lower surface of the body (12) by support pins (22) and pin-receiving members (20), wherein each of the pin-receiving members (20) is configured to receive one of the support pins (22),
  - and wherein the pin-receiving members (20) are carried on a lower part (18) of the body (12), and the support pins (22) are provided on an underside of the sleeve (24, 124).
2. The trap (10, 110, 210) of claim 1, wherein the trap is a shower trap (10).
3. The trap (10, 110, 210) of claim 1 or 2, wherein the tube (26, 126, 226) extends below the body outlet (16).
4. The trap (10, 110, 210) of claim 1, 2 or 3, wherein the tube (26, 126) is axially movable relative to the body (12).
5. The trap (10, 110, 210) of claim 4, wherein the tube (26, 126, 226) is slidably movable relative to the body (12).
6. The trap (10, 110, 210) of any of the preceding claims, wherein the tube (26, 126, 226) is received within a trap body retaining collar (28) adapted to

engage the trap body (12).

7. The trap (10, 110, 210) of claim 6, wherein the collar (28) is externally profiled and engages with a cooperating profile provided on the trap body (12).
8. The trap (10, 110, 210) of claim 6, wherein the collar (28) is securable to the trap body (12) by fasteners.
9. The trap (10, 110, 210) of any of the preceding claims, wherein the trap includes a flange (32) on an upper portion thereof, for engaging with a shower tray (34) or the like.
10. The trap (10, 110, 210) of claim 9, wherein the trap is adapted to overlie a portion of a shower floor.
11. The trap (10, 110, 210) of claim 9 or 10, wherein a flange (32) is provided on one or more of the trap body (12), the tube (26, 126, 226), or a trap body retaining collar (28).
12. The trap (10, 110, 210) of any of the preceding claims, wherein the sleeve (24, 124) receives an end of the tube (26, 126, 226).
13. The trap (10, 110, 210) of any of claims 1 to 11, wherein the sleeve (24, 124) is received within an end of the tube (26, 126, 226).
14. The trap (10, 110, 210) of any of the preceding claims, wherein the sleeve (24, 124) is adapted to be fixed to the trap body (12).
15. The trap (10, 110, 210) of any of claims 1 to 13, wherein the sleeve (24, 124) is mounted to the tube (26, 126, 226).
16. The trap (10, 110, 210) of any of the preceding claims, wherein the trap body inlet (14) is adapted to be permanently open.
17. The trap (10, 110, 210) of claim 16, further comprising a cover for restricting access to the interior of the trap.
18. The trap (10, 110, 210) of claim 17, wherein the cover is in the form of a shield or dome member (38).
19. The trap (10, 110, 210) of any of claims 1 to 15, adapted for use in combination with a trap sealing mechanism (33).
20. The trap (10, 110, 210) of claim 19, further comprising an integral plug (250).
21. The trap (10, 110, 210) of any of the preceding claims, wherein the tube (26, 126, 226) comprises a

portion adapted to be gripped by a user for removal of the tube (26, 126, 226) from the trap body (12).

## 5 Patentansprüche

1. Abwasser-Geruchverschluss (10, 110, 210), der Folgendes umfasst:
  - 10 einen Körper (12), der einen Einlass (14) und einen Auslass (16) definiert, eine Röhre (26, 126, 226) die sich von dem Einlass (14) aus in den Körper (12) erstreckt, wobei die Röhre (26, 126, 226) durch den Einlass (14) aus dem Körper (12) entfernbar ist, und
  - 15 eine Hülse (24, 124) zum Anordnen innerhalb des Körpers (12) zum Zusammenwirken mit einem unteren Ende der Röhre (26, 126, 226), so dass die Röhre (26, 126, 226) ineinandergeschoben wird, um die Länge derselben einzustellen,
  - 20 wobei, wenn in Anwendung, die Röhre (26, 126, 226) und die Hülse (24, 124) in Kombination eine Wasserdichtung innerhalb des Körpers (12) bilden und die Hülse (24, 124) auf die gleiche Weise wie die Röhre (26, 126, 226) durch den Einlass (14) aus dem Körper (12) entfernbar ist, um einen Zugang zu dem Inneren des Geruchverschlusses (10, 110, 210) zu ermöglichen, und wobei die Hülse (24, 124) zu einem unteren Abschnitt des Körpers (12) hin angeordnet ist und die Hülse (24, 124) von einer unteren Fläche des Körpers (12) beabstandet ist, um einen Wasserausfluss von innerhalb der Hülse (24, 124) zu ermöglichen,
  - 25 **dadurch gekennzeichnet, dass** die Hülse (24, 124) durch Stützstifte (22) und Stiftaufnahmeelemente (20) von einer unteren Fläche des Körpers (12) beabstandet ist,
  - 30 wobei jedes der Stiftaufnahmeelemente (20) dafür konfiguriert ist, einen der Stützstifte (22) aufzunehmen,
  - 35 und wobei die Stiftaufnahmeelemente (20) auf einem unteren Teil (18) des Körpers (12) getragen werden,
  - 40 und die Stützstifte (22) auf einer Unterseite der Hülse (24, 124) bereitgestellt werden.
2. Geruchverschluss (10, 110, 210) nach Anspruch 1, wobei der Geruchverschluss ein Duschen-Geruchverschluss (10) ist.
3. Geruchverschluss (10, 110, 210) nach Anspruch 1 oder 2, wobei sich die Röhre (26, 126, 226) unterhalb des Körperauslasses (16) erstreckt.
4. Geruchverschluss (10, 110, 210) nach Anspruch 1, 2 oder 3, wobei die Röhre (26, 126, 226) in Axial-

- richtung im Verhältnis zu dem Körper (12) beweglich ist.
5. Geruchverschluss (10, 110, 210) nach Anspruch 4, wobei die Röhre (26, 126, 226) verschiebbar im Verhältnis zu dem Körper (12) beweglich ist. 5
6. Geruchverschluss (10, 110, 210) nach einem der vorhergehenden Ansprüche, wobei die Röhre (26, 126, 226) innerhalb eines Geruchverschlusskörper-Rückhaltebundes (28) aufgenommen wird, der dafür eingerichtet ist, den Geruchverschlusskörper (12) in Eingriff zu nehmen. 10
7. Geruchverschluss (10, 110, 210) nach Anspruch 6, wobei der Bund (28) äußerlich profiliert ist und mit einem zusammenwirkenden Profil, das an dem Geruchverschlusskörper (12) bereitgestellt wird, ineinandergreift. 15
8. Geruchverschluss (10, 110, 210) nach Anspruch 6, wobei der Bund (28) durch Befestigungselemente an dem Geruchverschlusskörper (12) zu befestigen ist. 20
9. Geruchverschluss (10, 110, 210) nach einem der vorhergehenden Ansprüche, wobei der Geruchverschluss einen Flansch (32) an einem oberen Abschnitt desselben, zum Ineinandergreifen mit einer Duschwanne (34) oder dergleichen, einschließt. 25
10. Geruchverschluss (10, 110, 210) nach Anspruch 9, wobei der Geruchverschluss dafür eingerichtet ist, einen Abschnitt eines Duschbodens zu überlagern. 30
11. Geruchverschluss (10, 110, 210) nach Anspruch 9 oder 10, wobei ein Flansch (32) an einem oder mehreren von dem Geruchverschlusskörper (12), der Röhre (26, 126, 226) oder einem Geruchverschlusskörper-Rückhaltebund (28) bereitgestellt wird. 40
12. Geruchverschluss (10, 110, 210) nach einem der vorhergehenden Ansprüche, wobei die Hülse (24, 124) ein Ende der Röhre (26, 126, 226) aufnimmt. 45
13. Geruchverschluss (10, 110, 210) nach einem der Ansprüche 1 bis 11, wobei die Hülse (24, 124) innerhalb eines Endes der Röhre (26, 126, 226) aufgenommen wird. 50
14. Geruchverschluss (10, 110, 210) nach einem der vorhergehenden Ansprüche, wobei die Hülse (24, 124) dafür eingerichtet ist, an dem Geruchverschlusskörper (12) befestigt zu werden. 55
15. Geruchverschluss (10, 110, 210) nach einem der Ansprüche 1 bis 13, wobei die Hülse (24, 124) an der Röhre (26, 126, 226) angebracht ist.
16. Geruchverschluss (10, 110, 210) nach einem der vorhergehenden Ansprüche, wobei der Geruchverschlusskörper-Einlass (14) dafür eingerichtet ist, dauerhaft offen zu sein.
17. Geruchverschluss (10, 110, 210) nach Anspruch 16, der ferner eine Abdeckung zum Einschränken eines Zugangs zum Inneren des Geruchverschlusses umfasst.
18. Geruchverschluss (10, 110, 210) nach Anspruch 17, wobei die Abdeckung die Form eines Schild- oder Kuppелеlements (38) hat.
19. Geruchverschluss (10, 110, 210) nach einem der Ansprüche 1 bis 15, eingerichtet zur Verwendung in Verbindung mit einem Geruchverschluss-Abdichtungsmechanismus (33).
20. Geruchverschluss (10, 110, 210) nach Anspruch 19, der ferner einen integralen Stopfen (250) umfasst.
21. Geruchverschluss (10, 110, 210) nach einem der vorhergehenden Ansprüche, wobei die Röhre (26, 126, 226) einen Abschnitt umfasst, der dafür eingerichtet ist, durch einen Benutzer zur Entfernung der Röhre (26, 126, 226) aus dem Geruchverschlusskörper (12) ergriffen zu werden.

### Revendications

- 35 1. Siphon pour eaux usées et déchets (10, 110, 210) comprenant :
- un corps (12) qui définit une entrée (14) et une sortie (16) ;
- un tube (26, 126, 226) qui s'étend depuis l'entrée (14) à l'intérieur du corps (12), le tube (26, 126, 226) pouvant être enlevé du corps (12) au travers de l'entrée (14) ; et
- une gaine (24, 124) destinée à être positionnée à l'intérieur du corps (12) en vue de coopérer avec une extrémité inférieure du tube (26, 126, 226), de telle sorte que la longueur du tube (26, 126, 226) puisse être réglée de façon télescopique ; dans lequel :
- en utilisation, le tube (26, 126, 226) et la gaine (24, 124) forment en combinaison une étanchéité à l'eau à l'intérieur du corps (12) ; et la gaine (24, 124) peut être enlevée du corps (12) de la même manière que le tube (26, 126, 226) au travers de l'entrée (14) de manière à permettre un accès à l'intérieur du siphon (10, 110, 210) ; et dans

- lequel la gaine (24, 124) est positionnée en direction d'une section inférieure du corps (12) et la gaine (24, 124) est espacée d'une surface inférieure du corps (12) de manière à permettre l'évacuation vers l'extérieur de l'eau depuis l'intérieur de la gaine (24, 124), **caractérisé en ce que** la gaine (24, 124) est espacée d'une surface inférieure du corps (12) par des broches de support (22) et des éléments de réception de broche (20), dans lequel chacun des éléments de réception de broche (20) est configuré de manière à recevoir l'une des broches de support (22), et dans lequel les éléments de réception de broche (20) sont portés sur une partie inférieure (18) du corps (12), et les broches de support (22) sont prévues sur une face inférieure de la gaine (24, 124).
2. Siphon (10, 110, 210) selon la revendication 1, dans lequel le siphon est un siphon de douche (10).
  3. Siphon (10, 110, 210) selon la revendication 1 ou 2, dans lequel le tube (26, 126, 226) s'étend au-dessous de la sortie de corps (16).
  4. Siphon (10, 110, 210) selon la revendication 1, 2 ou 3, dans lequel le tube (26, 126) peut être déplacé axialement par rapport au corps (12).
  5. Siphon (10, 110, 210) selon la revendication 4, dans lequel le tube (26, 126, 226) peut être déplacé de façon coulissante par rapport au corps (12).
  6. Siphon (10, 110, 210) selon l'une quelconque des revendications précédentes, dans lequel le tube (26, 126, 226) est reçu à l'intérieur d'un collier de retenue de corps de siphon (28) qui est adapté de manière à engager le corps de siphon (12).
  7. Siphon (10, 110, 210) selon la revendication 6, dans lequel le collier est profilé à l'extérieur et il s'engage avec un profil de coopération qui est prévu sur le corps de siphon (12).
  8. Siphon (10, 110, 210) selon la revendication 6, dans lequel le collier (28) peut être fixé sur le corps de siphon (12) à l'aide de moyens de fixation.
  9. Siphon (10, 110, 210) selon l'une quelconque des revendications précédentes, dans lequel le siphon inclut un flanc (32) sur sa section supérieure, lequel est destiné à s'engager avec un receveur de douche (34) ou similaire.
  10. Siphon (10, 110, 210) selon la revendication 9, dans lequel le siphon est adapté de manière à recouvrir une section d'un sol de douche.
  11. Siphon (10, 110, 210) selon la revendication 9 ou 10, dans lequel un flanc (32) est prévu sur un ou plusieurs élément(s) pris parmi le corps de siphon (12), le tube (26, 126, 226) et un collier de retenue de corps de siphon (28).
  12. Siphon (10, 110, 210) selon l'une quelconque des revendications précédentes, dans lequel la gaine (24, 124) reçoit une extrémité du tube (26, 126, 226).
  13. Siphon (10, 110, 210) selon l'une quelconque des revendications 1 à 11, dans lequel la gaine (24, 124) est reçue à l'intérieur d'une extrémité du tube (26, 126, 226).
  14. Siphon (10, 110, 210) selon l'une quelconque des revendications précédentes, dans lequel la gaine (24, 124) est adaptée de manière à être fixée au corps de siphon (12).
  15. Siphon (10, 110, 210) selon l'une quelconque des revendications 1 à 13, dans lequel la gaine (24, 124) est montée sur le tube (26, 126, 226).
  16. Siphon (10, 110, 210) selon l'une quelconque des revendications précédentes, dans lequel l'entrée de corps de siphon (14) est adaptée de manière à être ouverte en permanence.
  17. Siphon (10, 110, 210) selon la revendication 16, comprenant en outre un couvercle pour restreindre l'accès à l'intérieur du siphon.
  18. Siphon (10, 110, 210) selon la revendication 17, dans lequel le couvercle se présente sous la forme d'un élément de protection ou de dôme (38).
  19. Siphon (10, 110, 210) selon l'une quelconque des revendications 1 à 15, adapté pour une utilisation en combinaison avec un mécanisme d'étanchéité de siphon (33).
  20. Siphon (10, 110, 210) selon la revendication 19, comprenant en outre un bouchon intégré (250).
  21. Siphon (10, 110, 210) selon l'une quelconque des revendications précédentes, dans lequel le tube (26, 126, 226) comprend une section qui est adaptée de manière à être saisie par un utilisateur pour l'enlèvement du tube (26, 126, 226) par rapport au corps de siphon (12).

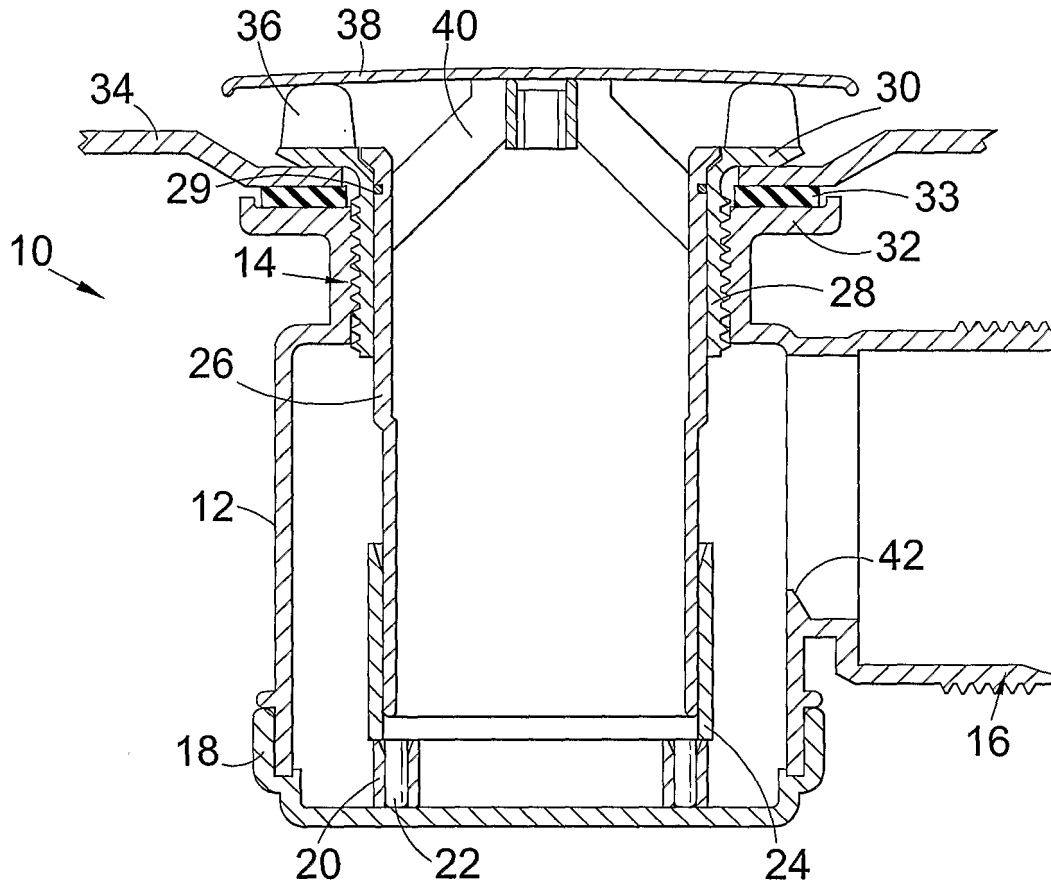


Fig. 1

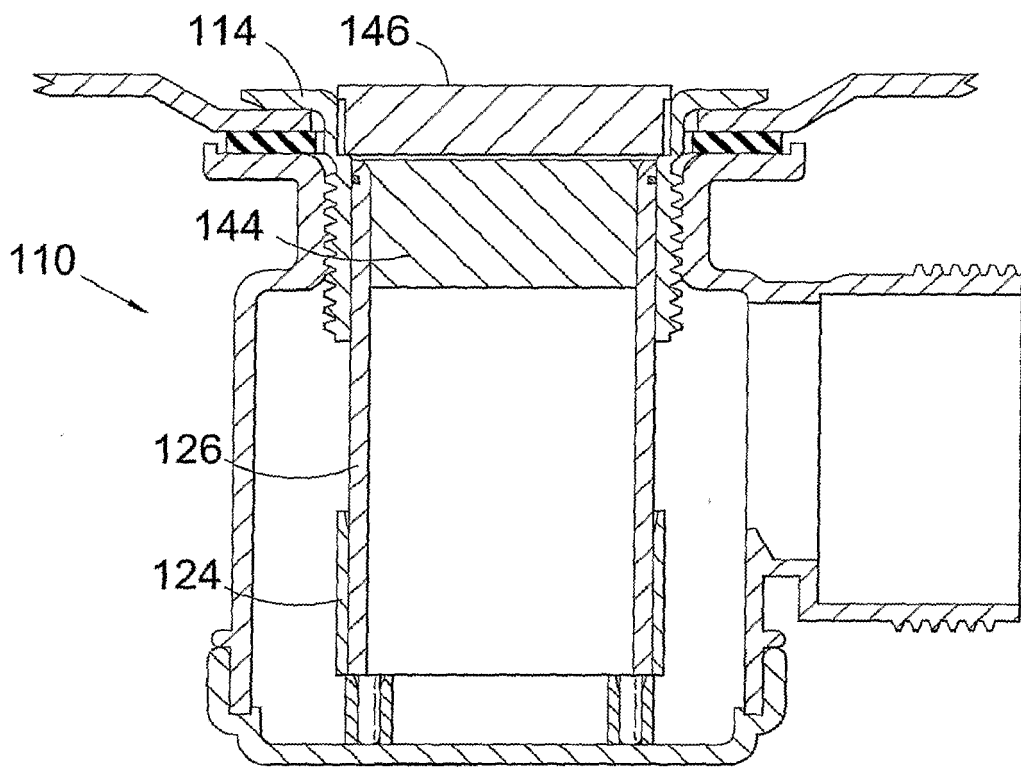


Fig. 2

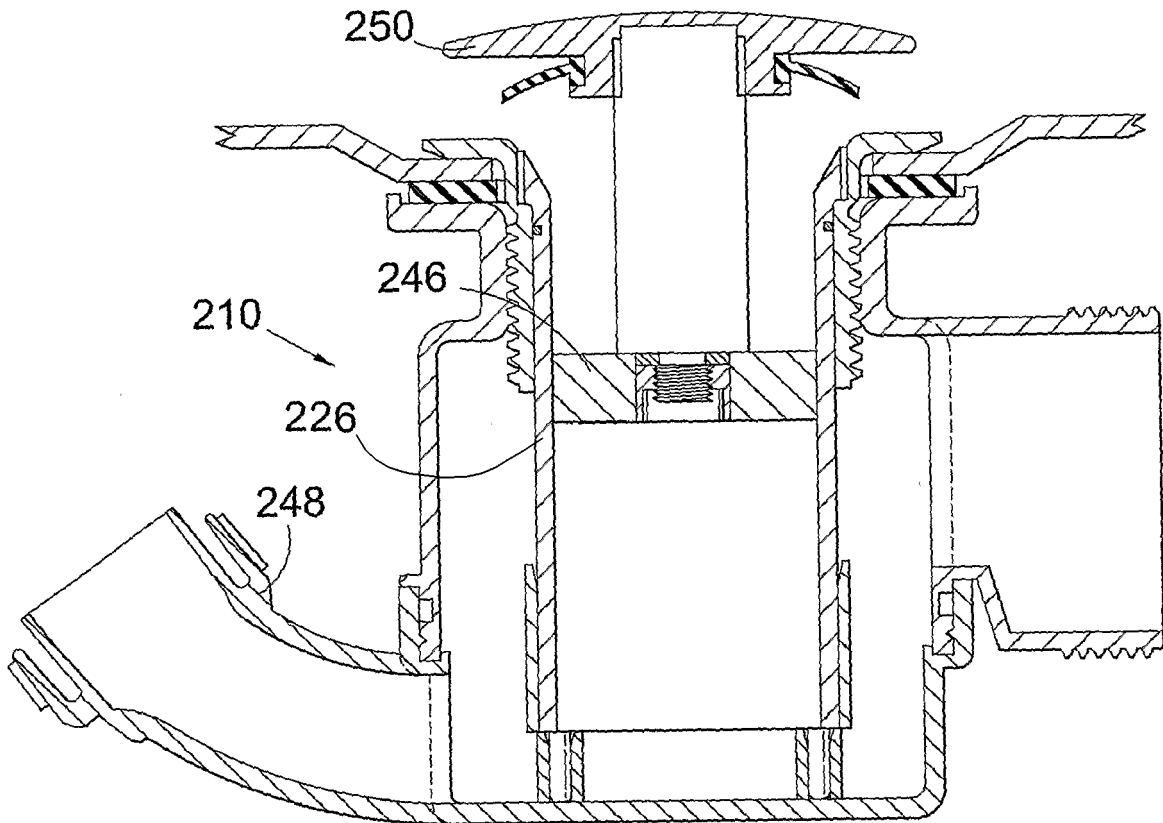


Fig. 3

**REFERENCES CITED IN THE DESCRIPTION**

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**Patent documents cited in the description**

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