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EUROPEAN PATENT APPLICATION

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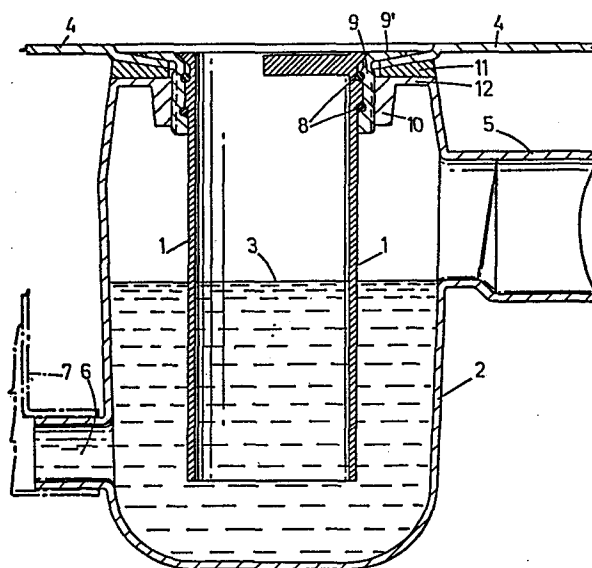
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⑥④ Designated Contracting States: **DE FR GB NL SE**

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⑤④ **Drain trap sanitary apparatus.**

⑤⑦ There is described a drain trap or water seal for sanitary apparatus, such as bathtubs, showers, washstands, sinks, floor traps, and similar, comprised of a hollow body with on the side and top, a discharge opening which is connected to a discharge pipe for the waste water, said drain trap being formed by a vertical cylinder which opens at the bottom below the water level and has means for disassembling thereof from the top out said sanitary apparatus, characterized in that said vertical cylinder (1) is secured water- and air-tight with the upper end thereof, in a ring (9), which is screwed in turn into an opening of said hollow body (2), said ring being retained pressed with a lip (9') against the rim of the outlet opening of said sanitary apparatus (4).



Drain trap for sanitary apparatus

This invention relates to a drain trap or water seal for sanitary apparatus such as bathtubs, showers, washstands, sinks, floor trap, and similar, which is comprised of a hollow body with on the side and top, a discharge opening which is connected to a discharge pipe for the waste water, said drain trap being formed by a vertical cylinder which opens at the bottom below the water level, and has means for allowing dismounting thereof from the top side out of the sanitary apparatus.

Drain traps of this kind are known from Netherlands Patent 34,765, and French Patents 42,560 (additional certificate) or 1,293,672. The drain trap as disclosed in said Netherlands Patent 34,765 is a drain trap to be built in the masonry of a floor. It may thus not be used as such for a bathtub or a washstand.

The drain trap as disclosed in French Patent 1,293,672 comprises a barrel which is made fast to the bathtub, for example by welding.

In the drain trap as disclosed in French Improvement Patent 42,560 (additional certificate), the cylinder may not be removed without unscrewing the barrel from the remaining components of the drain trap, whereby there is a danger of the various components of the drain trap falling apart when removing the vertical cylinder.

The object of the invention is to design a drain trap the main components of which may be removed without breaking the connection between the discharge pipe and the sanitary

apparatus, and with the substantial advantage that the hollow body of the drain trap as the vertical cylinder is removed, remains firmly connected to the sanitary apparatus, due to the way the hollow body is mounted on said sanitary apparatus.

5 To this end, said cylinder is secured water- and air-tight with the upper end thereof in a ring, which is screwed in turn into an uppermost opening of said hollow body, which ring is retained pressed with a lip thereof against the rim of the discharge opening of the sanitary apparatus.

10 Other details and advantages of the invention will stand out from the following description, given by way of non limitative example and with reference to the accompanying figure.

 The single figure is a lengthwise section through the drain trap according to the invention.

15 The drain trap as shown in the figure is characterized by a cylinder 1 which opens inside the hollow body 2 of the drain trap, below the water level 3, and is so designed at the top that said cylinder which forms the drain trap or water seal proper, may be disassembled on the top relative to the bottom 4 of the sanitary apparatus. The hollow body 2 has in the
20 usual way at the top and side, a discharge opening which connects to the discharge pipe 5 and diametrically opposite thereto, an inlet opening 6 which connects to a pipe 7 which communicates with the overflow of the sanitary apparatus proper. Said
25 components are not characteristic features of the invention.

 The characteristic of the drain trap according to the invention lies in the way the vertical cylinder 1, which can be reached and disassembled from the top relative to the sanitary apparatus, and the hollow body 2 is mounted on the
30 wall of said sanitary apparatus.

 A markedly practical mounting of the cylinder 1 and the hollow body 2 relative to the sanitary apparatus the bottom 4 of which is visible, is made clear in the figure. According to the invention, the uppermost end of the cylinder 1

is pressed by means of two O-rings 8, into a ring 9. Said ring 9 has a lip 9' which when screwing on the inwardly- and downwardly-facing rim 10 of the uppermost portion of the hollow body, is retained pressed into the opening provided therefor in the bottom 4 of said sanitary apparatus. A sealing ring 11 is provided between the uppermost flat wall 12 of the hollow body and the bottom 4 of the sanitary apparatus. It is clear that the cylinder 1 may also be screwed into ring 10. Said main element of the drain trap may thus be removed from the top, while the hollow body remains firmly secured to the bottom 4 of said sanitary apparatus. There results therefrom conversely, that the water drain according to the invention may be secured on location on the sanitary apparatus.

As results from the description given above the drain trap according to the invention offers the advantage that it allows easy cleaning and rinsing of the drain trap itself but also of parts connected thereto as e.g. the duct for evacuating waste waters.

In the case of a bath or shower-bath embedded in a concrete structure or in masonry, all the elements constituting the water trap are easily disassembled without danger of some parts falling out of reach.

It must be understood that the invention is in no way limited to the above embodiments and that many changes may be brought thereto without departing from the scope of the invention, as defined by the appended claims.

CLAIM

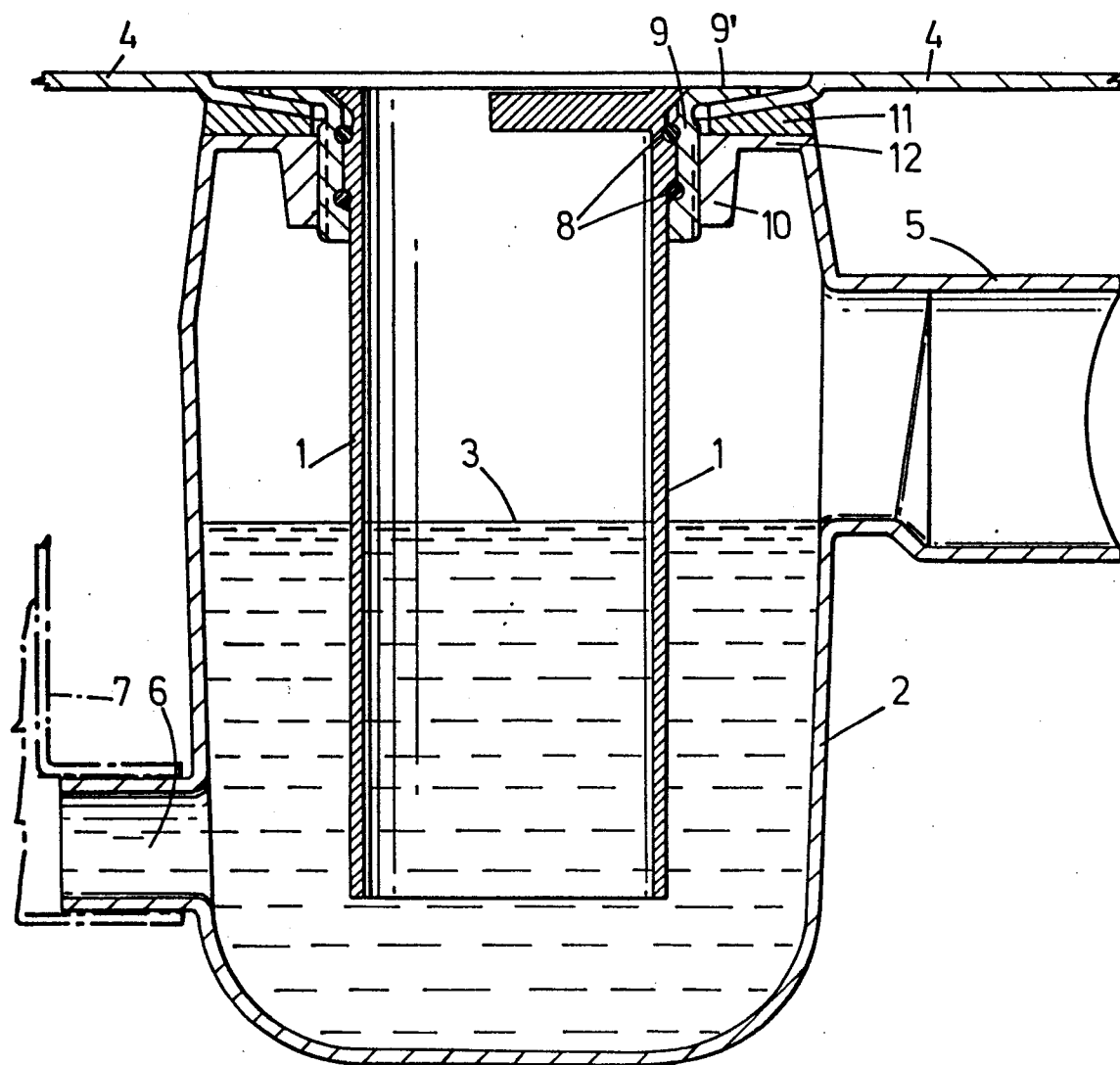
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10 secured water- and air-tight with the upper end thereof, in a
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lip (9') against the rim of the outlet opening of said
sanitary apparatus (4).

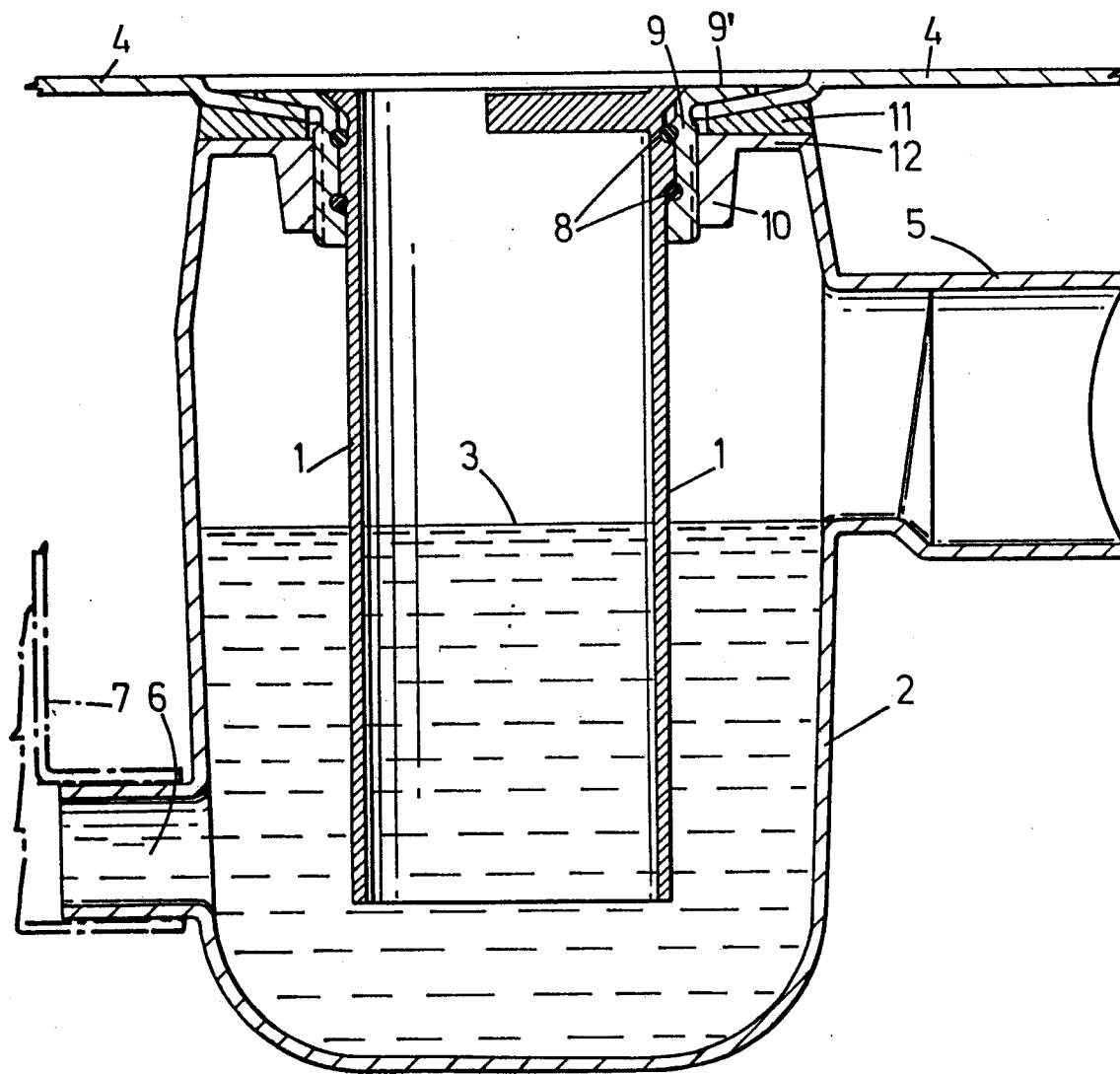
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European Patent
Office

EUROPEAN SEARCH REPORT

0138796

Application number

EP 84 87 0137

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y,D	FR-E- 42 560 (BARBANT) * Page 1, lines 35-46; figures *	1	E 03 C 1/29
Y	--- US-A-1 751 877 (NANCE) * Page 2, lines 70-105; figure 4 *	1	
A,D	--- NL-C- 34 765 (DE KLANG) * Whole document *	1	
A,D	--- FR-A-1 293 672 (TREAND) -----		
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.4) E 03 F E 03 C
Place of search THE HAGUE		Date of completion of the search 21-12-1984	Examiner HANNAART J.P.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			