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(71) Applicant: **HYDROSYSTEM S.r.L.**
S.S. 143 Strada Santhià 42
I-13042 Cavaglia (Vercelli)(IT)

(72) Inventor: **La Torre, Guglielmo, c/o Hydrosystem S.r.l.**
S.S. 143 Strada Santhià 42
I-13042 Cavaglià, (Vercelli)(IT)

(74) Representative: **Cicogna, Franco**
Ufficio Internazionale Brevetti Dott.Prof. Franco Cicogna Via Visconti di Modrone, 14/A
I-20122 Milano(IT)

(54) Civil drainage siphon for application to drainage holes of a wall.

(57) The present invention relates to a civil drainage siphon for application to drainage holes of a wall, which comprises a siphon body (1) having an inner cavity divided into a first and a second chambers (3, 4) by a bulkhead member (2) which has, at the bottom portion thereof, a port communicating the two chambers (3, 4) with one another.

There are moreover provided an inlet duct (10) and an outlet duct (11) which are respectively associated with the first and second chambers (3, 4) at the top portion of the siphon body (1).

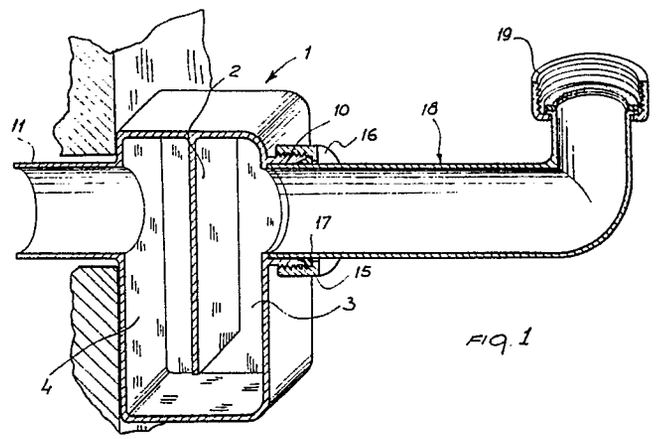

Fig. 1

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BACKGROUND OF THE INVENTION

The present invention relates to a civil drainage siphon for application to drainage holes of a wall.

As is known, the drainage siphons which are conventionally used for wash basins, bidets and the like-generally comprise a siphon body of cylindrical shape including an inlet duct coaxially arranged and an outlet duct which radially projects from the siphon body at a level different from that of the inlet duct.

These siphons must be coupled, by fittings, both to the sanitary item to which they are fitted and to the discharging or outlet ducts.

The siphon installing operations, on the other hand, are usually very expensive and complex.

Moreover, the provision of a high number of fittings or joints for coupling the several component parts of the conventional siphons is susceptible to cause leakages of water and the like.

Yet another drawback of conventional siphons is that the siphon is usually supported by the sanitary article to which it is coupled, with a consequent arrangement which can be frequently not perfectly stable.

SUMMARY OF THE INVENTION

Accordingly, the aim of the present invention is to overcome the above mentioned drawbacks by providing a new type of civil drainage siphon for application to drainage holes of a wall which can be directly applied to the wall so as to drastically reduce the number of the necessary fittings.

Within the scope of the above mentioned aim, a main object of the present invention is to provide such a civil drainage siphon which can be directly supported by the wall and can be coupled to the sanitary article by a single fitting element.

Yet another object of the present invention is to provide such a civil drainage siphon which is adapted to precisely discharge the liquid material from the sanitary article and to provide a liquid diaphragm providing an effective beer for bad odours.

Yet another object of the present invention is to provide such a civil drainage siphon which is very reliable in operation and is competitive from a mere economic standpoint.

According to one aspect of the present invention, the above aim and objects, as well as yet other objects, which will become more apparent here inafter, are achieved by a civil drainage siphon for application to drainage holes of a wall, characterized in that said siphon comprises a siphon body having an inner cavity divided into a first and second chambers by a bulkhead member, said bulkhead member being provided, at the bottom portion thereof, with a port communicating said chambers with one another, there being moreover provided an inlet duct and an outlet duct respectively associated with said first and second chambers, at the top portion of said siphon body.

BRIEF DESCRIPTION OF THE DRAWINGS

Further characteristics and advantages of the invention will become more apparent from the following detailed description of a preferred, though not exclusive, embodiment thereof, which is illustrated, by way of an indicative but not limitative example, in the figures of the accompanying drawings where:

Figure 1 is a cross-sectioned perspective schematic view illustrating a siphon according to the invention;

Figure 2 is a front view of the siphon having a square-base parallelepipedal siphon body;

Figure 3 shows a front view of the siphon having a rectangular base parallelepipedal siphon body;

Figure 4 is another front view of the subject siphon having a substantially circular-base siphon body;

Figure 5 is a side elevation view of the subject siphon;

Figure 6 shows a fixed coupling elbow for the subject siphon; and

Figure 7 shows another fitting elbow, of the adjustable height type, adapted to be associated with the subject siphon.

DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference to the figures of the above disclosed drawings, the civil drainage siphon, for application to drainage holes of a wall, comprises a siphon body 1 which, as is shown in figure 2, has a substantially square-base parallelepipedal configuration.

Likewise, as is shown in figure 3, the siphon

body, indicated at 1A, can have a rectangular base or, if desired, as it is shown at 1B in figure 4, a circular base.

The siphon body 1 comprises an inner cavity which is divided by a vertical bulkhead member 2 into a first chamber 3 and a second chamber 4, said bulkhead element extending from the top portion of the siphon body to the bottom of said cavity where said bulkhead element is provided with a port communicating said first chamber 3 and second chamber 4.

At the top portion of the siphon body 1, there is provided an inlet duct 10 coupled to the first chamber 3 and an outlet duct 14 coupled to the second chamber 4.

The ducts 10 and 11 are advantageously coaxial and aligned with one another.

In this connection it should be apparent that the duct 10 and 11 arrangement, in cooperation with the bulkheald element 2; will provide a suitable hydraulic guard, inside the siphon body 1, against the backflow of possible bad odours.

The outlet duct 11 can be directly introduced into a wall drainage hole and it will practically operate to support the siphon body 1.

The inlet duct 10 is advantageously provided, on its outer surface, with a thread 15 for engaging a ring-nut 16 which, through the interposition of a sealing gasket 17, allows an elbow 18 to be easily applied. The elbow 18, which is a fixed type of fitting elbow, is provided with a mouth portion 19 for coupling to a basin, bidet or the like outlet portion.

As is clearly shown in figure 7, it is further possible to provide an elbow 20 which is provided, at the end portion thereof to be coupled to the sanitary article, with a telescopic sleeve 21 engaging with the tubular portion 22 of the elbow, through sealing annular gaskets 23 assuring a perfect tightness and the possibility of adjusting the height of the fitting elbow.

More specifically, the telescopic sleeve 21 is coupled to a fitting mouth portion, still indicated at 19.

From the above disclosure it should be apparent that the invention fully achieves the intended aim and objects.

In particular, the fact is to be pointed out that a civil drainage siphon has been provided which can be directly applied to a drainage hole of a wall so as to be directly supported by the wall itself without the need of providing complex joints and fitting elements.

Another important aspect of the invention is that the subject siphon is simply made of a body which has in its inside a cavity,divided by a bulkhead element so as to provide perfect tightness features.

While the invention has been disclosed and illustrated with reference to a preferred embodiment thereof, it should be apparent that the disclosed embodiment is susceptible to many modifications and variations all of which will come within the spirit and scope of the appended claims.

Claims

1. A civil drainage siphon for application to drainage holes of a wall, characterized in that said siphon comprises a siphon body having an inner cavity divided into a first and second chambers by a bulkhead member, said bulkhead member being provided, at the bottom portion thereof, with a port communicating said chambers with one another, there being moreover provided an inlet duct and an outlet duct respectively associated with said first and second chambers, at the top portion of said siphon body.

2. A civil drainage siphon, according to claim 1, characterized in that said outlet duct and inlet duct are arranged on opposite faces of said body.

3. A civil drainage siphon, according to claims 1 and 2, characterized in that said outlet duct and inlet duct are coakially arranged with respect to one another.

4. A civil drainage siphon, according to one or more of the preceding claims, characterized in that said outlet duct can be directly introduced into a wall drainage hole.

5. A civil drainage siphon, according to one or more of the preceding claims, characterized in that said inlet duct is provided with an outer thread for engaging with a ring nut providing a tightness coupling with an elbow element adapted to be applied to the outlet of a sanitary article to which said siphon is coupled.

6. A civil drainage siphon, according to one or more of the preceding claims, characterized in that said elbow is provided, at its end portion to be coupled to said sanitary article, with a tubular telescopic portion tightly coupled to the fitting portion of said elbow.

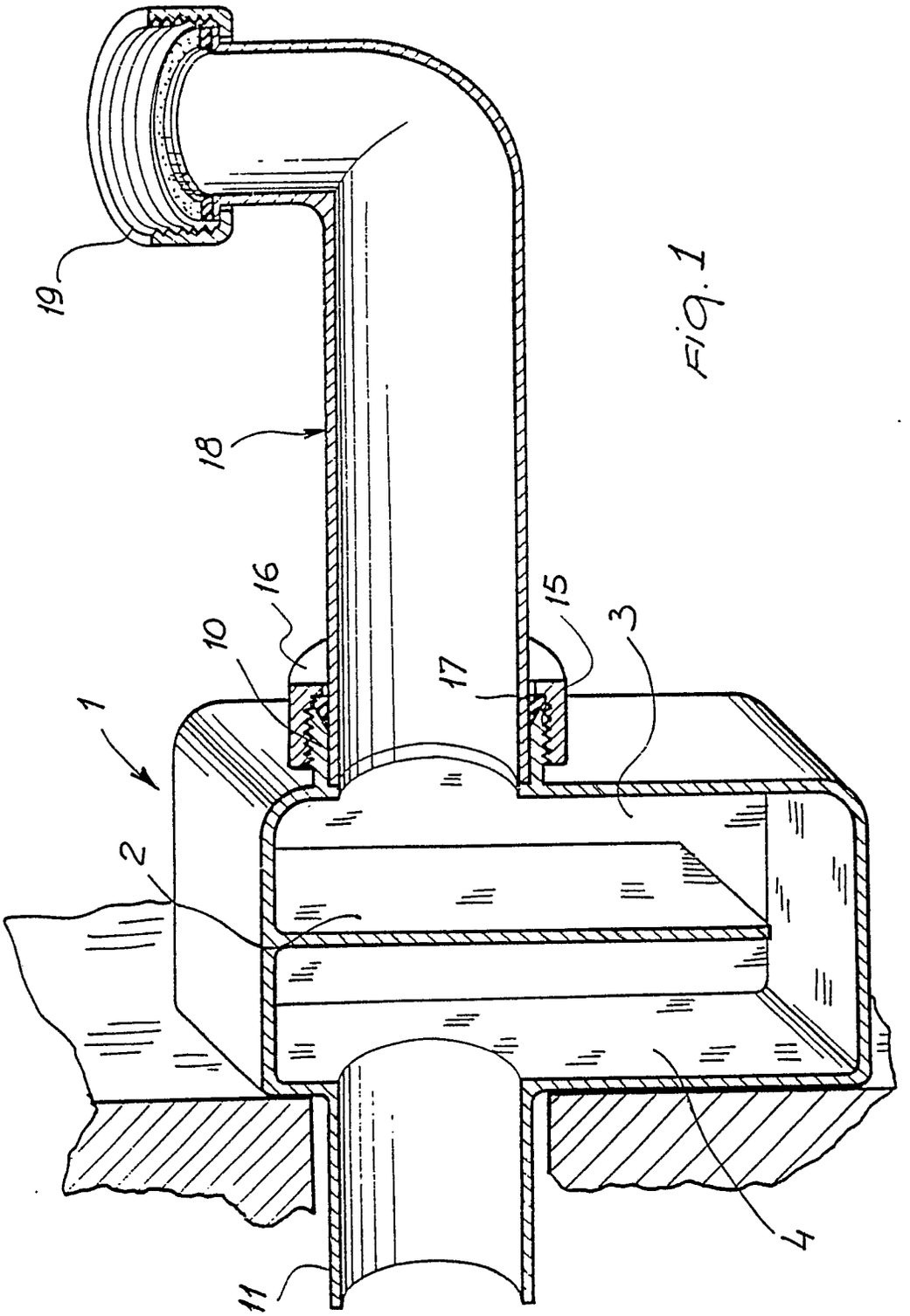

Fig. 1

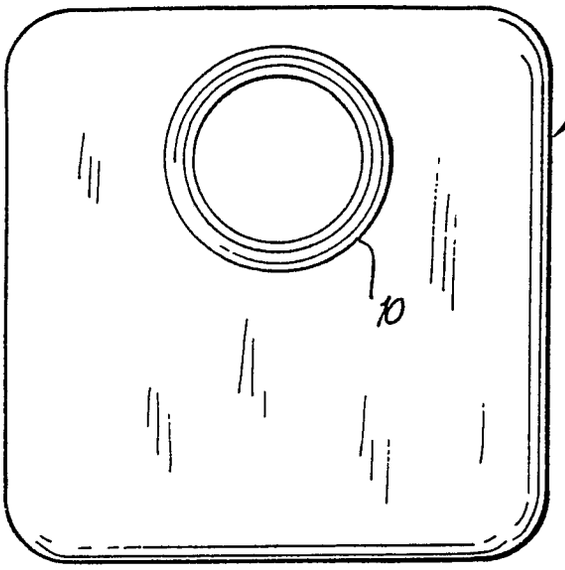

Fig. 2

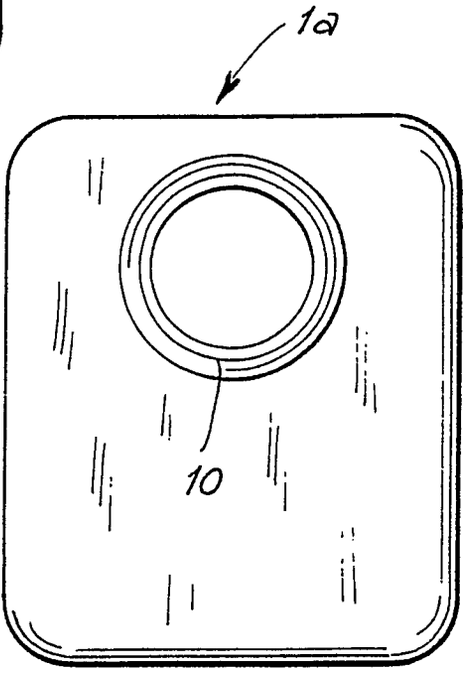

Fig. 3

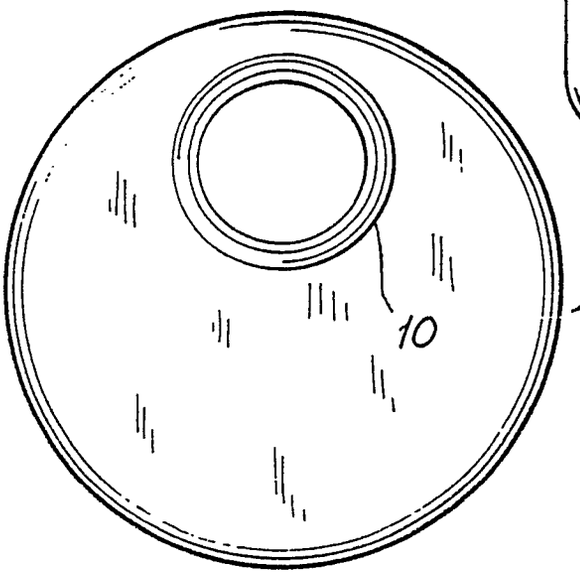

Fig. 4

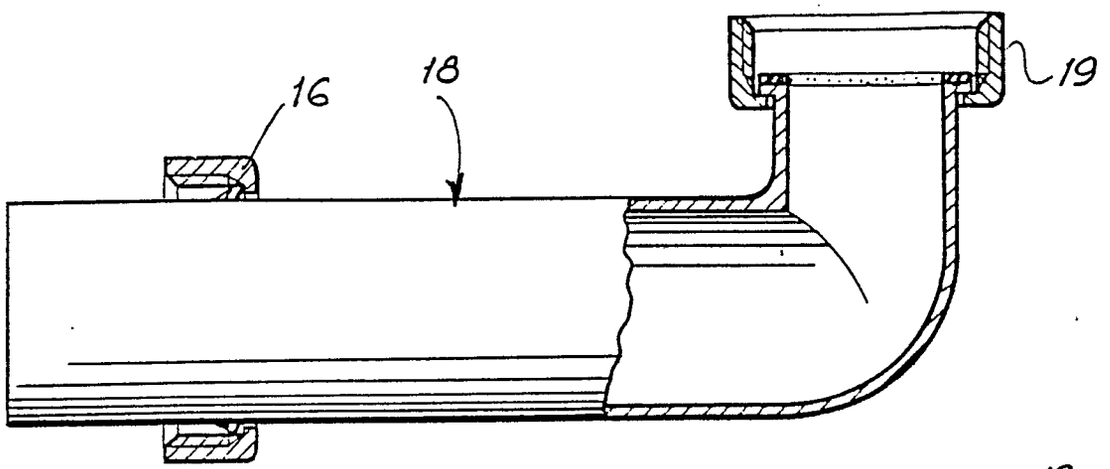

Fig. 6

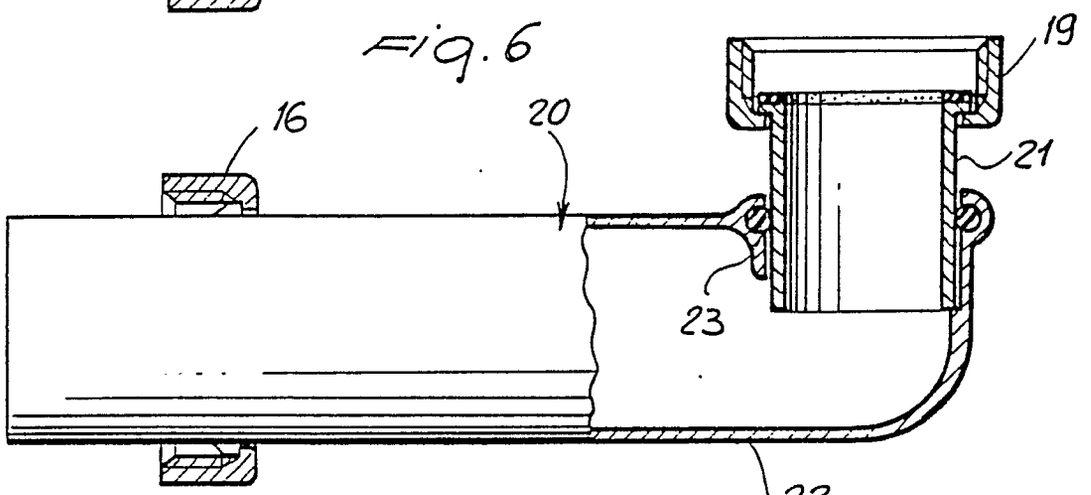

Fig. 7

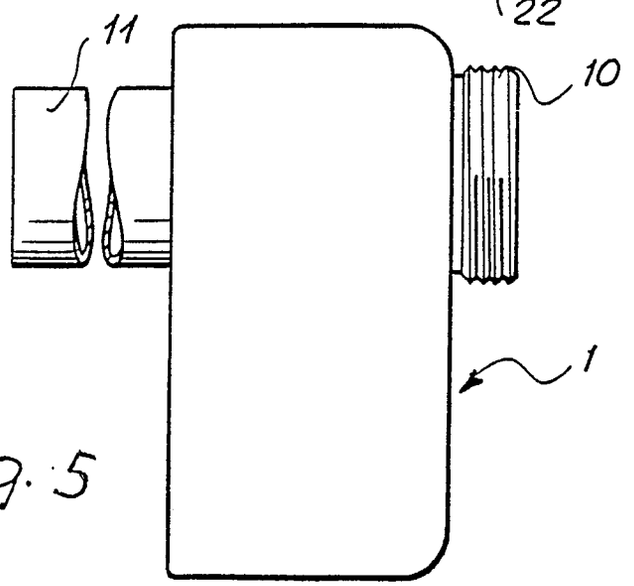

Fig. 5

European Patent Office

EUROPEAN SEARCH REPORT

Application number

EP 90830280.5

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 5)
X	FR - A3 - 2 488 369 (SPAREDI) * Totality * ----	1-3	F 16 L 43/00 E 03 C 1/28 E 03 D 11/18

TECHNICAL FIELDS SEARCHED (Int Cl 5)

F 16 L 43/00
F 16 L 45/00
E 03 C 1/00
E 03 D 11/00

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
VIENNA	03-09-1990	SCHUGANICH

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
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