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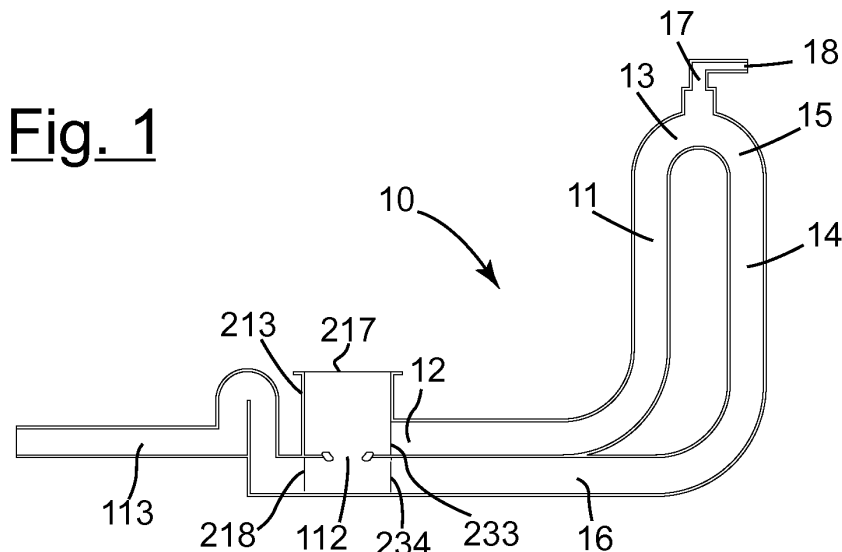
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(54) **Filling limiting device of concealed type for sanitary facilities and a sanitary facility using the same**

(57) The present invention regards a filling limiting device of concealed type for sanitary facilities and a sanitary facility using the same. The filling limiting device (10) for sanitary facilities (50) according to the present invention comprises a first pipe (11), connectable at a first end (12) thereof to the base of the filling tank (51) of the sanitary facility (50) and connected at a second end (13) thereof to a second pipe (14) for water drainage, the first pipe (11) being shaped in a manner such that its second

end (13) is positioned at a greater elevation with respect to its first end (12), the second pipe (14) comprising a first end (15) connected to said second end (13) of said first pipe (11) and a second end (16) positioned at a lower elevation than said first end (12) of said first pipe (11), at the connection between said second end (13) of said first pipe (11) and said first end (15) of said second pipe (14) a vent pipe (17) towards the environment being provided for and provided with, at an open end (18) thereof, a vent control valve (19) for the exit and/or entry of air.



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EUROPEAN SEARCH REPORT

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| DOCUMENTS CONSIDERED TO BE RELEVANT   |   |   |   |
|---|---|---|---|
| Category  | Citation of document with indication, where appropriate, of relevant passages   | Relevant to claim   | CLASSIFICATION OF THE APPLICATION (IPC)             |
| X   | EP 1 593 784 A2 (SILFRA S P A [IT] CRS S P A [IT]) 9 November 2005 (2005-11-09) | 1,6   | INV.<br>E03C1/242<br>E03C1/232                      |
| Y   | * the whole document *  | 2-4,7   |   |
| A   | -----   | 14,17,18  |   |
| X   | DE 20 2006 006240 U1 (DESCH KURT MICHAEL [DE]) 7 December 2006 (2006-12-07)     | 1,6   |   |
| A   | * paragraph [0012]; figure 1 *  | 7,9-11  |   |
| Y   | -----   |   |   |
| Y   | DE 91 04 424 U1 (LIMPINSEL R, MARSBERG DE) 27 June 1991 (1991-06-27)            | 2-4   |   |
|   | * page 5, paragraph 5; figures 1,2 *  |   |   |
|   | * page 6, paragraph 2 *   |   |   |
| Y   | -----   |   |   |
| Y   | GB 589 815 A (W P BUTTERFIELD LTD; GORDON PLINY MOSBY) 1 July 1947 (1947-07-01) | 3   | TECHNICAL FIELDS SEARCHED (IPC)<br><br>E03C<br>F16K |
|   | * page 2, lines 18-24, 82-90; figure 1 *  |   |   |
| Y   | -----   |   |   |
| Y   | US 5 249 598 A (SCHMIDT WILLIAM J [US]) 5 October 1993 (1993-10-05)             | 4   |   |
| A   | * figures 5,6 *   | 2,3   |   |
| Y   | -----   |   |   |
| Y   | US 5 640 724 A (HOLMES JOHN W [US]) 24 June 1997 (1997-06-24)                   | 7   |   |
|   | * column 2, line 55 - column 3, line 12; figure 2 *                             |   |   |
| A   | -----   |   |   |
| A   | DE 91 02 152 U1 (GEBERIT AG, RATINGEN, DE) 16 May 1991 (1991-05-16)             | 1,2,5-7,9,14-18   |   |
|   | * the whole document *  |   |   |
| A   | -----   |   |   |
| A   | GB 966 137 A (GIRLING LTD) 6 August 1964 (1964-08-06)                           | 2,3   |   |
|   | * the whole document *  |   |   |
| A   | -----   |   |   |
| A   | CH 344 883 A (RENAULT [FR]) 29 February 1960 (1960-02-29)                       | 3,4   |   |
|   | * figures 10,16 *   |   |   |
|   | -----   |   |   |
|   | -/--  |   |   |
| The present search report has been drawn up for all claims  |   |   |   |
| 2   | Place of search   | Date of completion of the search  | Examiner  |
|   | Munich  | 16 November 2010  | Leher, Valentina                                    |
| CATEGORY OF CITED DOCUMENTS   |   | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>.....<br>& : member of the same patent family, corresponding document |   |
| X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |   |   |   |

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EUROPEAN SEARCH REPORT

Application Number  
EP 07 12 3541

| DOCUMENTS CONSIDERED TO BE RELEVANT   |   |   |   |
|---|---|---|---|
| Category  | Citation of document with indication, where appropriate, of relevant passages                       | Relevant to claim   | CLASSIFICATION OF THE APPLICATION (IPC) |
| A   | DE 696 01 984 T2 (DURGO AB [SE])<br>19 August 1999 (1999-08-19)<br>* the whole document *<br>-----  | 4,5   |   |
| A   | US 5 208 921 A (NICOLL JAMES D [US])<br>11 May 1993 (1993-05-11)<br>* the whole document *<br>----- | 7   |   |
|   |   |   | TECHNICAL FIELDS SEARCHED (IPC)         |
|   |   |   |   |
| The present search report has been drawn up for all claims  |   |   |   |
| Place of search<br><b>Munich</b>  |   | Date of completion of the search<br><b>16 November 2010</b>   | Examiner<br><b>Leher, Valentina</b>     |
| <b>CATEGORY OF CITED DOCUMENTS</b><br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |   | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>.....<br>& : member of the same patent family, corresponding document |   |

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EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

EP 07 12 3541

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
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16-11-2010

| Patent document cited in search report | Publication date | Patent family member(s)   | Publication date   |
|--|------------------|---|--|
| EP 1593784 A2                          | 09-11-2005       | NONE  |  |
| DE 202006006240 U1                     | 07-12-2006       | NONE  |  |
| DE 9104424 U1                          | 27-06-1991       | NONE  |  |
| GB 589815 A                            | 01-07-1947       | NONE  |  |
| US 5249598 A                           | 05-10-1993       | AU 4802493 A<br>WO 9403746 A1   | 03-03-1994<br>17-02-1994   |
| US 5640724 A                           | 24-06-1997       | NONE  |  |
| DE 9102152 U1                          | 16-05-1991       | AT 85998 T<br>CA 2037236 A1<br>DE 59100042 D1<br>DK 0446177 T3<br>EP 0446177 A1<br>ES 2038063 T3<br>GR 3007198 T3<br>US 5121509 A               | 15-03-1993<br>07-09-1991<br>01-04-1993<br>05-04-1993<br>11-09-1991<br>01-07-1993<br>30-07-1993<br>16-06-1992               |
| GB 966137 A                            | 06-08-1964       | NONE  |  |
| CH 344883 A                            | 29-02-1960       | NONE  |  |
| DE 69601984 T2                         | 19-08-1999       | AT 178696 T<br>DE 69601984 D1<br>DK 754895 T3<br>EP 0754895 A2<br>JP 4065339 B2<br>JP 9026046 A<br>SE 503815 C2<br>SE 9502280 A<br>US 5881759 A | 15-04-1999<br>12-05-1999<br>18-10-1999<br>22-01-1997<br>26-03-2008<br>28-01-1997<br>09-09-1996<br>09-09-1996<br>16-03-1999 |
| US 5208921 A                           | 11-05-1993       | NONE  |  |

EPC FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82