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TOILET WITH INTEGRATED BUILT-IN WATER TANK

- (57)

A bidet with an integrated built-in water tank, including a seat, a water inlet assembly, and a jetting assembly. The seat includes a bidet main body, a shell, and a partition; the bidet main body includes a bedpan and a drain pipe; the shell is arranged at a periphery of the bidet main body; the shell includes a front sidewall, a bottom wall, a left sidewall, a right sidewall, and a rear sidewall; a bottom opening is defined between the front sidewall
- and the bottom wall; the partition extends upwardly from the bottom wall; the partition, the bottom wall, the left sidewall, the right sidewall, and the rear sidewall enclose to form a water tank that is opened upwardly; the partition, the shell, and the bedpan are of an integrated ceramic structure; the water inlet assembly and the jetting assembly are disposed in the water tank.

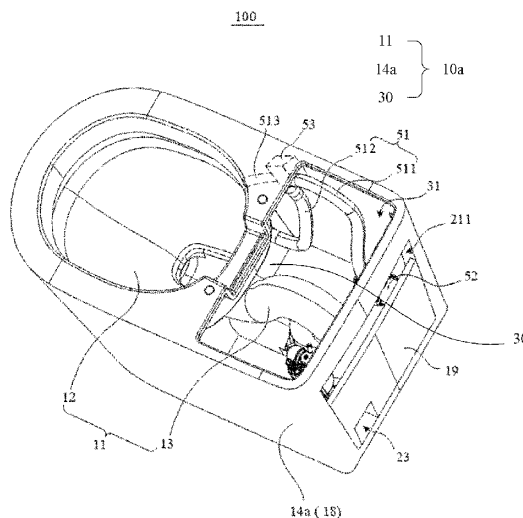


FIG. 1



## EUROPEAN SEARCH REPORT

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EPO FORM 1503 03.82 (P04C01)

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	US 2 979 731 A (REETZ JAMES E) 18 April 1961 (1961-04-18)	1,2	INV. E03D1/28
A	* the whole document * -----	3,4	
			TECHNICAL FIELDS SEARCHED (IPC)
			E03D
-The present search report has been drawn up for all claims			
Place of search <b>The Hague</b>		Date of completion of the search <b>16 January 2024</b>	Examiner <b>Fajarnés Jessen, A</b>
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			



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**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

2-4 (completely); 1 (partially)

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



# **LACK OF UNITY OF INVENTION** **SHEET B**

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

## 1. claims: 2-4(completely); 1(partially)

A bidet with an integrated built-in water tank comprising a seat, a water inlet assembly, and a jetting assembly; wherein the seat comprises a bidet main body, a shell, and a partition; the bidet main body comprising a bedpan and a drain pipe in communication with the bedpan; the shell comprising a front sidewall, a bottom wall, a left sidewall, a right sidewall, and a rear sidewall; the jetting assembly comprising a jetting pipe and a water pump connected in series to the jetting pipe, and the jetting pipe being in communication with the bedpan; the rear sidewall defining a water inlet installation hole, and the water inlet assembly further comprising a water inlet fitting; an outlet of the water inlet fitting being connected to an inlet of the water inlet pipe; the water inlet fitting being removably connected to the water inlet installation hole.

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## 2. claims: 5, 6(completely); 1(partially)

A bidet with an integrated built-in water tank comprising a seat, a water inlet assembly, and a jetting assembly; wherein the seat comprises a bidet main body, a shell, and a partition; the bidet main body comprising a bedpan and a drain pipe in communication with the bedpan; the shell comprising a front sidewall, a bottom wall, a left sidewall, a right sidewall, and a rear sidewall; the jetting assembly comprising a jetting pipe and a water pump connected in series to the jetting pipe, and the jetting pipe being in communication with the bedpan; the partition extending upwardly to be connected to the bedpan, and an upper portion of the rear sidewall defines a window connected to an outside

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## 3. claims: 7, 8(completely); 1(partially)

A bidet with an integrated built-in water tank comprising a seat, a water inlet assembly, and a jetting assembly; wherein the seat comprises a bidet main body, a shell, and a partition; the bidet main body comprising a bedpan and a drain pipe in communication with the bedpan; the shell comprising a front sidewall, a bottom wall, a left sidewall, a right sidewall, and a rear sidewall; the jetting assembly comprising a jetting pipe and a water pump connected in series to the jetting pipe, and the jetting pipe being in communication with the bedpan; an inner wall surface of an upper portion of the bedpan defining an annular flushing groove; the jetting assembly further comprising a three-way valve; the jetting pipe comprising a main path, a first



# **LACK OF UNITY OF INVENTION** **SHEET B**

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branch path connected to an outlet of the three-way valve, and a second branch path connected to another outlet of the three-way valve; the main path being connected to an outlet of the water pump and an inlet of the three-way valve; an outlet of the first branch path being in communication with a bottom of the bedpan, and an outlet of the second branch path being in communication with the annular flushing groove on the upper portion of the bedpan.

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## 4. claims: 9-15(completely); 1(partially)

A bidet with an integrated built-in water tank comprising a seat, a water inlet assembly, and a jetting assembly; wherein the seat comprises a bidet main body, a shell, and a partition; the bidet main body comprising a bedpan and a drain pipe in communication with the bedpan; the shell comprising a front sidewall, a bottom wall, a left sidewall, a right sidewall, and a rear sidewall; the jetting assembly comprising a jetting pipe and a water pump connected in series to the jetting pipe, and the jetting pipe being in communication with the bedpan; the rear sidewall comprising a first rear sidewall and a second rear sidewall disposed facing each other in a front-rear direction, the second rear sidewall defining a hanging hole and a drain through hole, and the first rear sidewall defining a water inlet installation hole; the partition and the first rear sidewall being disposed opposite to each other in the front-rear direction and both extending upwardly from the bottom wall, and a front portion of the bedpan protruding from a front surface of the partition; the partition and the first rear sidewall being disposed on a front side of the second rear sidewall; an installation cavity being defined between the first rear sidewall and the second rear sidewall, and the drain pipe passing through the first rear sidewall and having an external connection end extending into the installation cavity, the external connection end being disposed at a position corresponding to the drain through hole; the partition, the first rear sidewall, the bottom wall, the left sidewall, and the right sidewall enclosing to form a water tank that is opened upwardly.

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## 5. claims: 16-18(completely); 1(partially)

A bidet with an integrated built-in water tank comprising a seat, a water inlet assembly, and a jetting assembly; wherein the seat comprises a bidet main body, a shell, and a partition; the bidet main body comprising a bedpan and a drain pipe in communication with the bedpan; the shell comprising a front sidewall, a bottom wall, a left sidewall,



# LACK OF UNITY OF INVENTION SHEET B

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a right sidewall, and a rear sidewall; the jetting assembly comprising a jetting pipe and a water pump connected in series to the jetting pipe, and the jetting pipe being in communication with the bedpan; the bidet further comprising an overflow pipe; wherein an inlet end of the overflow pipe extends into the water tank, and an outlet end of the overflow pipe is in communication with the drain pipe; the shell comprising the bottom wall, and a lower portion of the drain pipe being integrally connected to the bottom wall; a position, of an upper surface of the bottom wall, adjacent to the drain pipe being arranged with an installation tab being hollow; an inner cavity of the installation tab being in communication with the drain pipe, a top of the installation tab defining an overflow installation hole in communication with the inner cavity of the installation tab, and a lower end of the overflow pipe being sealingly fixed to the overflow installation hole; the installation tab, the partition, the shell, and the bedpan being of an integrated ceramic structure.

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6. claims: 19 (completely); 1 (partially)

A bidet with an integrated built-in water tank comprising a seat, a water inlet assembly, and a jetting assembly; wherein the seat comprises a bidet main body, a shell, and a partition; the bidet main body comprising a bedpan and a drain pipe in communication with the bedpan; the shell comprising a front sidewall, a bottom wall, a left sidewall, a right sidewall, and a rear sidewall; the jetting assembly comprising a jetting pipe and a water pump connected in series to the jetting pipe, and the jetting pipe being in communication with the bedpan; the bidet further comprising an overflow pipe and a side branch pipe; wherein an inlet end of the overflow pipe extends into the water tank, and an outlet end of the overflow pipe is in communication with the drain pipe; an end of the side branch pipe being in communication with an upper portion of the bedpan, and the other end of the side branch pipe being in communication with the inlet end of the overflow pipe; the upper portion of the bedpan defining a diversion groove arranged horizontally; both the jetting pipe and the side branch pipe being in communication with the diversion groove.

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7. claims: 20 (completely); 1 (partially)

A bidet with an integrated built-in water tank comprising a seat, a water inlet assembly, and a jetting assembly; wherein the seat comprises a bidet main body, a shell, and a partition; the bidet main body comprising a bedpan and a



# LACK OF UNITY OF INVENTION SHEET B

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drain pipe in communication with the bedpan; the shell comprising a front sidewall, a bottom wall, a left sidewall, a right sidewall, and a rear sidewall; the jetting assembly comprising a jetting pipe and a water pump connected in series to the jetting pipe, and the jetting pipe being in communication with the bedpan; the bidet further comprising an overflow pipe and an extraction assembly; an inlet end of the overflow pipe extending into the water tank, and an outlet end of the overflow pipe being in communication with the drain pipe; the overflow pipe comprising an odor barrier structure, and the overflow pipe comprising an inline section and a reservoir section connected to an upper end of the inline section; the inlet end of the overflow pipe being formed at the reservoir section, the odor barrier structure being formed at the reservoir section, and the outlet end of the overflow pipe being formed at a lower end of the inline section; the inline section extending in a vertical direction, and a main portion of the reservoir section being in a form of an arch with a concave side facing upward; the reservoir section having a connection port arranged downwardly to be connected to the upper end of the inline section; the extraction assembly comprising an extraction pipe and an extraction fan connected in series to the extraction pipe; an end of the extraction pipe being in communication with an upper portion of the bedpan, and the other end of the extraction pipe being in communication with the inline section.

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

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5 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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10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
15	US 2979731	A	18-04-1961	NONE
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82