US 20200217054A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2020/0217054 A1**

Chen (43) **Pub. Date: Jul. 9, 2020**

(54) **A SINK HAVING AN INVISIBLE DRAINAGE DEVICE**

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(21) Appl. No.: **16/632,350**

(22) PCT Filed: **Nov. 14, 2017**

(86) PCT No.: **PCT/CN2017/110795**

§ 371 (c)(1),
(2) Date: **Jan. 19, 2020**

(30) **Foreign Application Priority Data**

Oct. 25, 2017 (CN) 201721384507.7

Publication Classification

(51) **Int. Cl.**

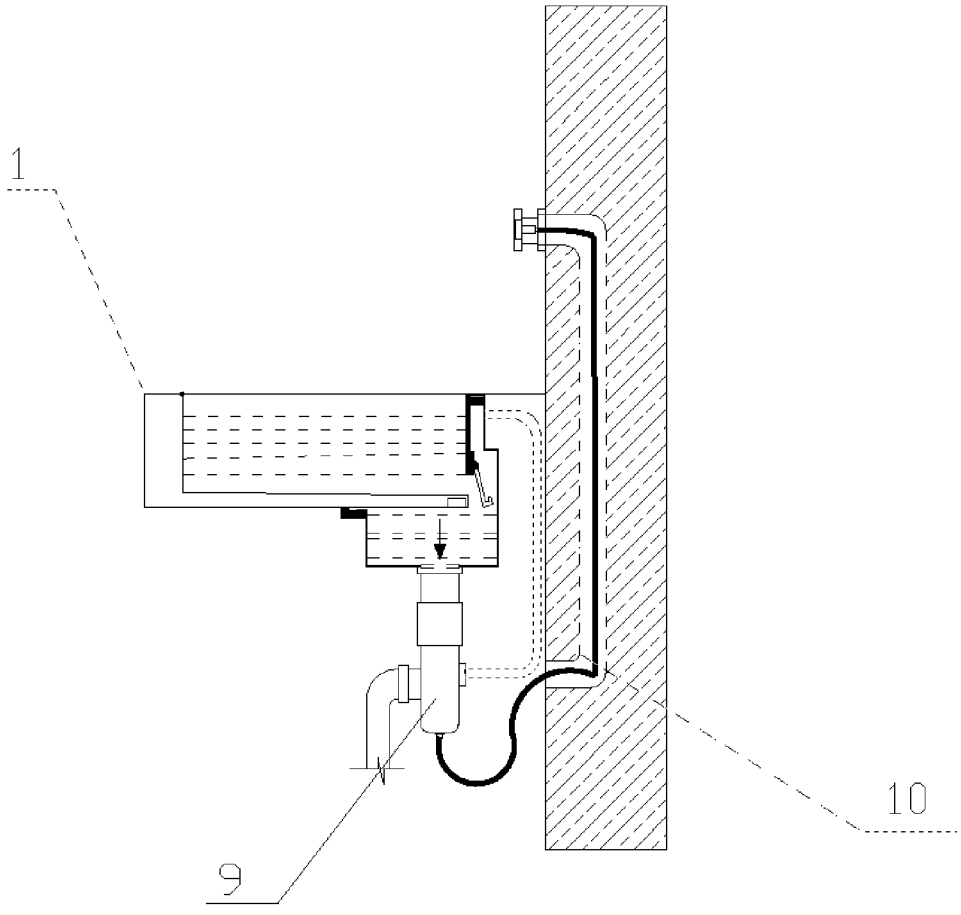
E03C 1/186	(2006.01)
E03C 1/182	(2006.01)
E03C 1/232	(2006.01)

(52) **U.S. Cl.**

CPC ***E03C 1/186*** (2013.01); ***E03C 1/232*** (2013.01); ***E03C 1/182*** (2013.01)

(57) **ABSTRACT**

A sink having an invisible drainage device, comprising an overflow table (**1**), an overflow basin (**2**), an auxiliary water tank (**3**), and a water retaining component; the overflow basin (**2**) is embedded within the overflow table (**1**), and the auxiliary water tank (**3**) is in communication with the overflow basin (**2**); the water retaining component comprises a limiting plate (**21**), a movable water retaining plate (**22**) and a limiting block (**23**), the limiting plate (**21**) being fixedly disposed above a water outlet of the overflow basin (**2**), and the movable water retaining plate (**22**) being movably provided at a bottom portion of the limiting plate (**21**) and being located at a position at which the overflow basin (**2**) and the auxiliary water tank (**3**) communicate; the limiting plate (**21**) is disposed at a lower mouth of the overflow basin (**2**), and a bottom portion of the auxiliary water tank (**3**) is provided with a water outlet component. The overflow table (**1**) and the overflow basin (**2**) are integrally and seamlessly jointed so as to resolve persistent shortcomings such as dirt hiding, bacterium breeding and cleaning being impossible between traditional basins and tables. Moreover, problems such as dirty corners, odor leakage and cleaning being impossible are completely solved, being convenient and safe for users, while setting the mind at ease and alleviating worry. Meanwhile, the overall aesthetics are greatly improved, the sink being more beautiful and more harmonious.



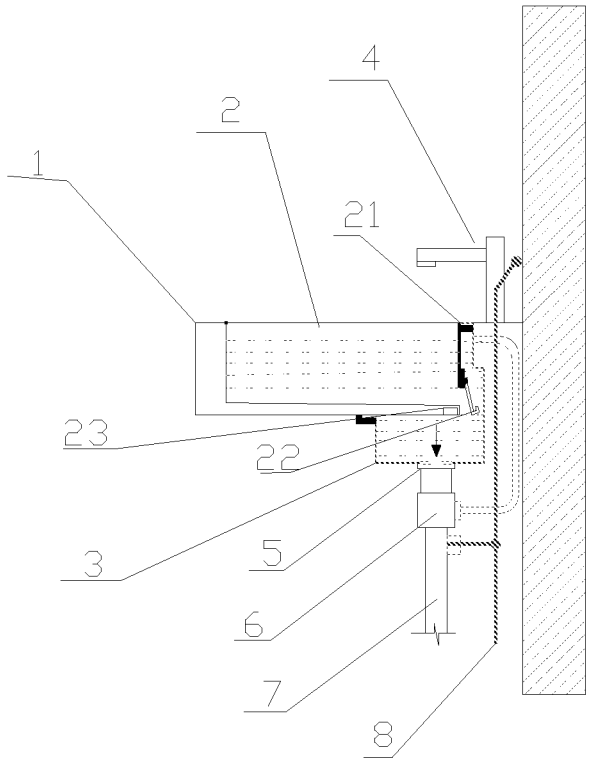


FIG. 1

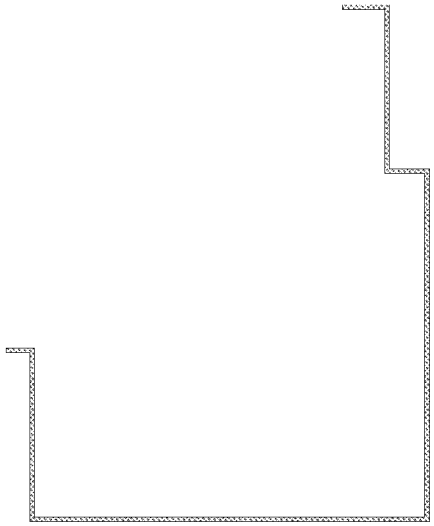


FIG. 2

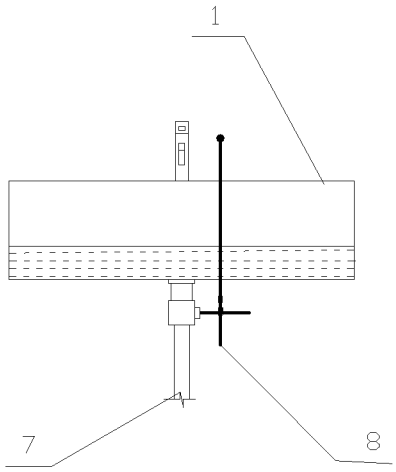


FIG. 3

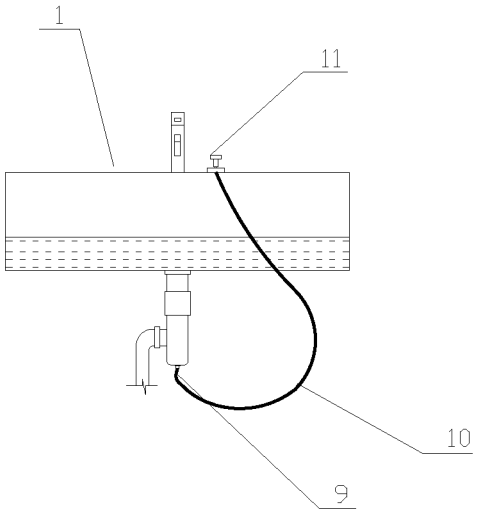


FIG. 4

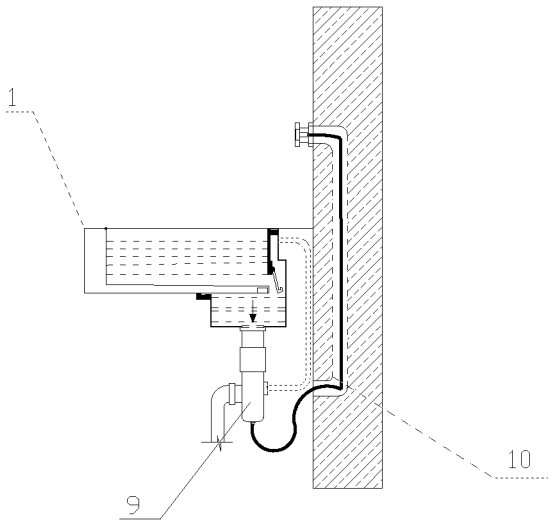


FIG. 5

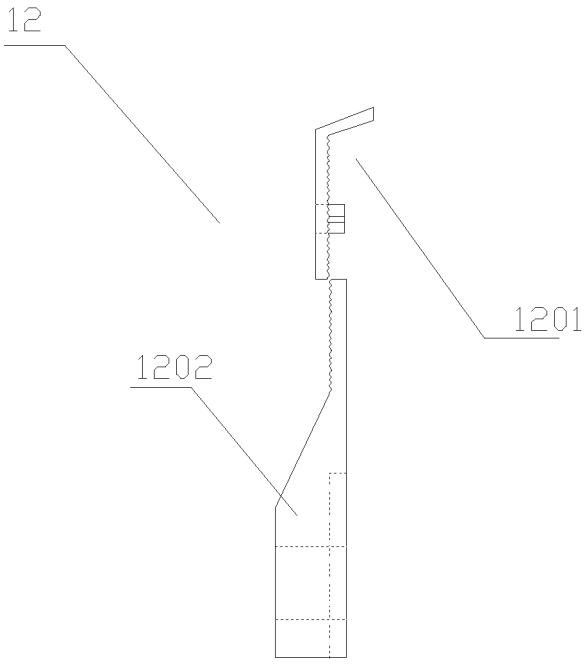


FIG. 6

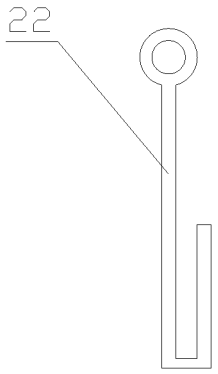


FIG. 7

A SINK HAVING AN INVISIBLE DRAINAGE DEVICE

TECHNOLOGY FIELD

[0001] The invention relates to a sink having an invisible drainage device, which belongs to the technical field of sanitary ware.

BACKGROUND ART

[0002] The sanitary ware of the prior art is generally made of ceramic material, but the ceramic plate can not be specially shaped and polished due to the particularity thereof, after the exposed installation of the drainer, the residual water on the bottom portion of the basin cannot be discharged into the drainer, thereby the bottom portion of the basin may hide dirt, and only by tilting the bottom plate of the basin to one side and leave the residual water in the basin flow away, can the basin being clean and protected from pollution. In addition, the traditional exposed overflow gap which is directly connected with the drain line, thereby the bad smell and bugs in the lines may flow out by the overflow gap and causing pollution.

SUMMARY OF THE INVENTION

[0003] In view of the problems existing in the prior art, the invention aims to provide a sink having an invisible drainage device.

[0004] The invention is realized by adapting the following technical schemes:

[0005] The invention provides a sink having an invisible drainage device, comprising an overflow table, an overflow basin, an auxiliary water tank, and a water retaining component, the overflow basin is embedded within the overflow table, and the auxiliary water tank is in communication with the overflow basin, the water retaining component comprises a limiting plate, a movable water retaining plate and a limiting block, the limiting plate being fixedly disposed above a water outlet of the overflow basin, and the movable water retaining plate being movably provided at a bottom portion of the limiting plate and being located at a position at which the overflow basin and the auxiliary water tank communicate, the limiting plate is disposed at a lower mouth of the overflow basin, and a bottom portion of the auxiliary water tank is provided with a water outlet component.

[0006] Preferably, an overflow gap is provided on the auxiliary water tank, the overflow gap is in communication with the water outlet component by an overflow tube.

[0007] Preferably, a top portion of the overflow basin is provided with a water faucet. Preferably, the overflow table and the overflow basin are integrally and seamlessly jointed.

[0008] Preferably, a flush lift rod is provided inside the water faucet, the water outlet component comprises a circular tube, an articulated fastener and a pull-type basin drainer, the water outlet of the pull-type basin drainer is controlled by the flush lift rod.

[0009] Preferably, a flush button is provided on the surface of the overflow table, the flush button is in connection with the water outlet component by a soft connecting line, the water outlet component comprises a circular tube, an articulated fastener and a drive-by-wire drainer, the water outlet of the drive-by-wire drainer is controlled by the flush button through the soft connecting line.

[0010] Preferably, the water retaining component comprises a limiting plate and a movable water retaining plate, the limiting plate being fixedly disposed above a water outlet of the overflow basin, and the movable water retaining plate being movably provided at a bottom portion of the limiting plate to control the flow of water from the overflow basin to the auxiliary water tank.

[0011] Preferably, a magnetic sheet is embedded within the movable water retaining plate.

[0012] Compared to the prior art, the invention has following advantageous effects:

[0013] the overflow table and the overflow basin are integrally and seamlessly jointed so as to resolve persistent shortcomings such as dirt hiding, bacterium breeding and cleaning being impossible between traditional basins and tables. Moreover, problems such as dirty corners, odor leakage and cleaning being impossible are completely solved, being convenient and safe for users, while setting the mind at ease and alleviating worry. Meanwhile, the overall aesthetics are greatly improved, the sink being more beautiful and more harmonious.

BRIEF DESCRIPTION OF DRAWINGS

[0014] According to descriptions of a non-limiting embodiment made with reference to the following drawings, other features, objects, and advantages of the invention will become more obvious:

[0015] FIG. **1** is a side view of an embodiment of the water outlet component in the invention;

[0016] FIG. **2** is a schematic diagram showing structure of the auxiliary water tank in the invention;

[0017] FIG. **3** is a front view of FIG. **1**;

[0018] FIG. **4** is a front view of second embodiment of the water outlet component in the invention;

[0019] FIG. **5** is a side view of third embodiment of the water outlet component in the invention;

[0020] FIG. **6** is a schematic diagram showing structure of water outlet component mounting bracket in the invention;

[0021] FIG. **7** is a schematic diagram showing structure of the movable water retaining plate in the invention;

[0022] In the accompanying drawings: **1** refers to overflow table; **11** refers to flush button; **2** refers to overflow basin; **21** refers to limiting plate; **22** refers to movable water retaining plate; **23** refers to limiting block; **3** refers to auxiliary water tank; **4** refers to water faucet; **5** refers to circular tube; **6** refers to articulated fastener; **7** refers to pull-type basin drainer; **8** refers to flush lift rod; **9** refers to drive-by-wire drainer; **10** refers to soft connecting line; **12** refers to water outlet bracket; **1201** refers to articulated fastener; **1202** refers to drainer fixed portion.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0023] The invention is further described in details with reference to specific embodiment below. The following embodiment is intended to help the those skilled in the art to further understand the invention, but not to limit the invention in any way. It should be noted that various transformations and improvements can be made by those skilled in the

art without departing from the spirit of the invention, which should be included within the protection scope of the invention.

[0024] As shown in FIG. **1-7**, the invention provides a sink having an invisible drainage device, comprising an overflow table **1**, an overflow basin **2**, an auxiliary water tank, and a water retaining component; the overflow basin **2** is embedded within the overflow table **1**, and the auxiliary water tank **3** is in communication with the overflow basin **2**, the shape of the auxiliary water tank is not fixed but changed according to the structure of the overflow table, the water retaining component comprises a limiting plate **21**, a movable water retaining plate **22** and a limiting block **23**, the limiting plate **22** being fixedly disposed above a water outlet of the overflow basin **2**, and the movable water retaining plate being movably provided at a bottom portion of the limiting plate **22** and being located at a position at which the overflow basin **2** and the auxiliary water tank **3** communicate, the limiting block **23** is disposed at a lower mouth of the overflow basin **2**, the flow of water in the overflow basin to the auxiliary water tank **3** is controlled by the contact and separation between the movable water retaining plate **22** and a limiting block **23**, when the movable water retaining plate **22** is in contact with the limiting block **23**, water outlet closes and the water can not flow, when the movable water retaining plate **22** is in separation with the limiting block **23**, water outlet opens and the water can flow, and a bottom portion of the auxiliary water tank **3** is provided with a water outlet component.

[0025] An overflow gap is provided on the auxiliary water tank **3**, the overflow gap is in communication with the water outlet component by an overflow tube.

[0026] A top portion of the overflow basin **2** is provided with a water faucet **4**.

[0027] The overflow table **1** and the overflow basin **2** are integrally and seamlessly jointed.

[0028] A flush lift rod is provided inside the water faucet **4**, the water outlet component comprises a circular tube **5**, an articulated fastener **6** and a pull-type basin drainer **7**, the water outlet of the pull-type basin drainer **7** is controlled by the flush lift rod **8**.

[0029] A flush button **11** is provided on the surface of the overflow table **1**, the flush button **11** is in connection with the water outlet component by a soft connecting line **10**, the water outlet component comprises a circular tube **5**, an articulated fastener **6** and a drive-by-wire drainer **9**, the water outlet of the drive-by-wire drainer **9** is controlled by the flush button **11** through the soft connecting line **10**.

[0030] The circular tube is in connection with the articulated fastener, which may facilitate the detachment and cleaning, and is convenient to replace the drainer.

[0031] The water outlet component is fixed on a bottom portion of the auxiliary water tank by a water outlet bracket **12**, the water outlet bracket **12** comprises an articulated fastener **1201** and a drainer fixed portion **1202**.

[0032] A magnetic sheet is embedded within the movable water retaining plate **22**, in addition, the limiting block **23** is also made of magnetic sheet, which can be quickly reset after drainage.

[0033] Compared to the prior art, the invention has following advantageous effects:

[0034] The overflow table and the overflow basin are integrally and seamlessly jointed so as to resolve persistent shortcomings such as dirt hiding, bacterium breeding and cleaning being impossible between traditional basins and tables. Moreover, problems such as dirty corners, odor leakage and cleaning being impossible are completely solved, being convenient and safe for users, while setting the mind at ease and alleviating worry. Meanwhile, the overall aesthetics are greatly improved, the sink being more beautiful and more harmonious.

[0035] The specific embodiment of the invention is described above. It should be understood that the invention is not limit to above-mentioned specific embodiment, and various transformations and improvements can be made by those skilled in the art within the scope of claims, which is not affect the essential contents of the invention.

1. A sink having an invisible drainage device, comprising an overflow table, an overflow basin, an auxiliary water tank, and a water retaining component, the overflow basin is embedded within the overflow table, and the auxiliary water tank is in communication with the overflow basin, the water retaining component comprises a limiting plate, a movable water retaining plate and a limiting block, the limiting plate being fixedly disposed above a water outlet of the overflow basin, and the movable water retaining plate being movably provided at a bottom portion of the limiting plate and being located at a position at which the overflow basin and the auxiliary water tank communicate, the limiting block is disposed at a lower mouth of the overflow basin, and a bottom portion of the auxiliary water tank is provided with a water outlet component.

2. The sink having an invisible drainage device of claim **1**, wherein an overflow gap is provided on the auxiliary water tank, the overflow gap is in communication with the water outlet component by an overflow tube.

3. The sink having an invisible drainage device of claim **1**, wherein a top portion of the overflow basin is provided with a water faucet.

4. The sink having an invisible drainage device of claim **1**, wherein the overflow table and the overflow basin are integrally and seamlessly jointed.

5. The sink having an invisible drainage device of claim **3**, wherein a flush lift rod is provided inside the water faucet, the water outlet component comprises a circular tube, an articulated fastener and a pull-type basin drainer, the water outlet of the pull-type basin drainer is controlled by the flush lift rod.

6. The sink having an invisible drainage device of claim **1**, wherein a flush button is provided on the surface of the overflow table, the flush button is in connection with the water outlet component by a soft connecting line, the water outlet component comprises a circular tube, an articulated fastener and a drive-by-wire drainer, the water outlet of the drive-by-wire drainer is controlled by the flush button through the soft connecting line.

7. The sink having an invisible drainage device of claim **1**, wherein the water retaining component comprises a limiting plate and a movable water retaining plate, the limiting plate being fixedly disposed above a water outlet of the overflow basin, and the movable water retaining plate being movably provided at a bottom portion of the limiting plate to control the flow of water from the overflow basin to the auxiliary water tank.

8. The sink having an invisible drainage device of claim **1**, wherein a magnetic sheet is embedded within the movable water retaining plate.

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