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(54) **UNIBODY DOUBLE-SINK WASHBASIN**

EINSTÜCKIGES WASCHBECKEN MIT ZWEI SPÜLEN

LAVABO À DOUBLE ÉVIER MONOBLOC

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(56) References cited:
WO-A1-03/028500 FR-A- 1 357 113
US-A- 1 616 313 US-A- 2 324 725
US-A- 5 855 029 US-A1- 2013 055 500
US-A1- 2014 047 635

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Description

Technical Field

[0001] Present invention relates to a washbasin according to the preamble of claim 1 and that is a sanitary requisite with two sinks, upper and lower, in a unibody providing an ergonomic use. The sanitary requisite is preferably ceramic.

State of the Art

[0002] Purificatory characteristic of the water and its nature that represents purity have been of the essence for various religions throughout the history and it is known to be used in religious rituals. Splay vessels in which the water is accumulated after washing hands, are known to be the first sample of the sinks used today.

[0003] The necessity of washing hands particularly before meals has been noticed through experiencing various diseases in the past and a variety of studies have been conducted on the mediums needed during the washing of the hands.

[0004] Initially, there were concave designs made out of various materials in which the water poured from utensils such as ewers or buckets was accumulated. These concave, shallow designs that were made out of materials such as copper and aluminum form the basis of sinks that we use today. The fact that these designs needed emptying after every hand or face wash constituted a disadvantage for the users.

[0005] Hand washing initially carried out with containers like ewers or buckets required another person for pouring the water. This situation has constituted difficulties for people who would like to wash their hands on their own and led users to seek various solutions.

[0006] For the action of hand washing, the necessity of carrying water from structures such as wells and fountains came to existence and this has constituted disadvantages for the people. As a result of these disadvantages, subsequently to the necessity of carrying the water to usage areas through different ways, a variety of studies have been carried out. Thus, by adding the plumbing system to the designs known as basin, a technical feature has been introduced. The improved plumbing system solved the problem that necessitated the constant emptying of the wastewater that accumulated in the sinks and discharging of wastewater through the plumbing system was achieved. With the technical features brought in, sinks have begun to provide the user an ergonomic and comfortable use.

[0007] There are various types of washbasins that we use regularly in our everyday lives. These are usually wall mounted, mounted on furniture or typically located above or below the counter. Having said that, these washbasins are manufactured as part of certain standards and again put into the service of users within the scope of certain standards. This situation causes various

problems.

[0008] Because standard washbasin heights are higher than children's heights, children who wish to wash their hands are either lifted up to the height of the washbasin by adults or utilize stools to reach the washbasin. Without having the assistance of an adult or a stool to reach the washbasin, children are having difficulties while washing their hands or brushing their teeth.

[0009] Washbasins used in the state of the art are also constituting difficulties for elderly and overweight individuals in the event that these individuals desire to wash their hands and feet in terms of reaching standard washbasin heights. Additionally, standard washbasin heights are also a challenge for individuals with disabilities.

[0010] As a result of the preliminary examinations conducted in the state of the art, it has been found out that there are washbasins that contain two or more sinks. Even though washbasins made out of ceramic material that have two interconnected sinks located next to and below of one another provided solution for feet washing problem, they constitute disadvantages because they occupy a large space and are difficult to assemble in tiny areas.

[0011] The utility model bearing number "CN202925629U" relates to a washbasin that comprises of a large sink on the left side and a smaller one on the right. Sinks of the said washbasin are made out of steel material and they are located side by side. The said washbasin contains one faucet and two drains for wastewater. While the sink located on the left side is used for activities like dish washing, the smaller sink on the right side is used for washing ingredients (e.g. salad ingredients) that require precision during the cleaning phase.

[0012] Another examples of double-sink washbasins are disclosed in US1 616 313 A and FR1 357 113 A.

Advantages of the Invention

[0013] The object of the invention is to provide a developed washbasin structured in a unibody that comprises of overlapping two sinks of which the below sink has a lower standard height that will allow children to wash their hands and brush their teeth conveniently.

[0014] Another object of the invention is to provide a washbasin that will allow the elderly and overweight individuals to wash their hands and feet comfortably.

[0015] Another object of the invention is to provide a developed washbasin structure that will allow individuals with disabilities who can't reach the standard washbasin height to carry out activities like washing their hands.

[0016] Another object of the invention is to allow adults to keep carrying out actions such as hand washing, tooth brushing through the standard height sink contained in the washbasin.

[0017] Another object of the invention is to provide a unibody washbasin that will take up the same amount of space in the mounting area as one sink by installing upper and lower sinks of the washbasin in an overlapping way.

[0018] Another object of the invention is to eliminate

the possibility of discomfort that the lower sink might constitute for the person who uses the upper sink by installing lower sink that the washbasin comprises rearwards.

[0019] Another object of the invention is to eliminate the necessity of reaching out to the clean water faucet for activities such as hand washing for the person using the upper sink by designing the edge of the sink in rectangular, square or crescent shape concave to the inner reservoir of the sink.

[0020] The objects are achieved by a unibody double-sink washbasin according to the appended claims.

Description of the Figures

[0021]

Figure 1. Side View of the Double-Sink Washbasin with Unibody

Figure 2. Top View of the Double-Sink Washbasin with Unibody

Description of the References in Figures

[0022]

10. Double-sink Washbasin
 100. Upper Sink
 110. Upper Sink Faucet
 120. Wall Mounting Part
 130. Upper Sink Overflow Hole
 140. Upper Sink Drain
 150. Upper Sink Drain Pipe
 160. Upper Sink Edge
 200. Lower Sink
 210. Lower Sink Faucet
 220. Lower Sink Overflow Hole
 230. Lower Sink Drain
 240. Lower Sink Drain Pipe
 250. Lower Sink Edge
 260. Lower Sink Wall Coupling Part
 300. Coupling Piece
11. Double-sink Washbasin Bottom Edge

Description of the Invention

[0023] The present invention relates to a double-sink washbasin (10) structure that has a lower sink (200) located under the upper sink (100) and an upper sink (100) that allows use of multiple sink washbasin in the field of single sink washbasin for young, adult, child, elderly and disabled individuals.

[0024] Double-sink washbasin (10) can be manufactured out of ceramic, porcelain, steel, glass, wood, natural stone, marble or Corian materials and preferably made of ceramic material. Double-sink washbasin (10) is particularly developed for the use of the children, elderly and individuals with disabilities and can also be used as a medical requisite. Mounting of the double-sink wash-

basin (10) is made with wall-hung mounting system. Double-sink washbasin (10) comprises a single piece upper sink (100), a lower sink (200) positioned under the upper sink (100), and a coupling piece (300) that establishes the connection between the upper sink (100) and the lower sink (200).

[0025] Upper sink (100) comprises upper sink faucet (110) which provides fresh water to the user and can be in various shapes, wall mounting part (120) for installing the double-sink washbasin (10) to the area of use, upper sink drain (140) for discharging of the wastewater from the double-sink washbasin (10) pursuant to the activities such as washing hands, brushing teeth, upper sink overflow hole (130) for preventing overflow of the water accumulated in the upper sink (100) due to various reasons such as clogging of the upper sink drain (140), upper sink drain pipe (150) for transferring the wastewater to systems such as sewage system through the upper sink drain (140) and upper sink edge (160) which can be in rectangular, square or crescent shape for providing support to upper sink users and convenience while they wash their hands without reaching out to the upper sink faucet (110).

[0026] The upper sink (100) can be in various forms but manufactured preferably in an elliptical shape. In the top view of the double-sink washbasin shown in the Figure 2, the upper sink (100), upper sink edge (160) which is the side that the user is on while using the double-sink washbasin (10) is seen in an elliptical form and concave to the inner reservoir of the upper sink (100). The upper sink edge (160) which is in a concave form that allows convenience for users to reach the faucet is positioned on the side while the user is using the double-sink washbasin (10). In the rear side of the upper sink edge (160) of the upper sink (100) there is the wall mounting part (120) which assumes the task of mounting of the upper sink (100) to the wall. Upper sink drain pipe (150) is on and under the same vertical axis with the wall mounting part (120) and positioned between the upper sink (100) and the lower sink (200). Upper sink faucet (110) is on the same horizontal axis with the wall mounting part (120) of the upper sink (100) and positioned closer to the wall and between the wall to which the double-sink washbasin (10) is mounted and the upper sink edge (160). Upper sink overflow hole (130) and upper sink drain (140) are located inside the reservoir of the upper sink. When examining at the upper sink (100) parallel from the height of the upper sink edge (160), in terms of height from top to bottom; upper sink faucet (110), below that the upper sink edge (160), below that the upper sink overflow hole (130), below that wall mounting part (120), below that upper sink drain (140) located inside the upper sink and at the bottom the upper sink drain pipe are arranged in order.

[0027] The lower sink (200) comprises lower sink faucet (210) which can be in various forms to provide water to the user, lower sink drain (230) for discharging the waste water from the double-sink washbasin (10) pur-

suant to usage, lower sink overflow hole (220) for preventing overflow of the water accumulated in the lower sink (200) due to various reasons such as clogging of the lower sink drain (230), lower sink drain pipe (240) for transferring the wastewater to systems such as sewage system through the lower sink drain (230), lower sink edge (250) on which the lower sink(200) user rests while using the lower sink (200) and lower sink wall mounting part (260) where the lower sink (200) comes into contact with the wall.

[0028] The lower sink (200) is in a unibody form with the upper sink (100) connected with a coupling piece (300) produced out of ceramic material. The lower sink (200) and the upper sink (100) are positioned on the same vertical axis. When the double-sink washbasin (10) is viewed from the side by leaving the wall that it's mounted on the left, the conjunction view of the lower sink (200) and the coupling piece (300) resembles a reversed letter "J" shape. Because the lower sink (200) is in a unibody form with the upper sink (100) and the mounting of double sink washbasin (10) to wall is done through the wall mounting part (120) located on the upper sink (100) there is no mounting part on the lower sink (200). However, there is the lower sink wall coupling part (260) where the lower sink comes (200) into contact with the wall. The lower sink faucet (210) is positioned on the coupling part (300). In the inner reservoir of the lower sink where the wastewater is accumulated, there is the lower sink overflow hole (220) and the lower sink drain (230). The lower sink overflow hole (220) is on the same horizontal axis abreast with the wall coupling part of the lower sink (200). The user that utilizes the lower sink (200) of the double-sink washbasin (10) uses the double-sink washbasin (10) by means of resting on the lower sink edge (250). Lower sink drain (230) is located on the bottom of the inner reservoir of the lower sink (200). The lower sink drain pipe (240) that assumes the task of transferring wastewater through the lower sink drain (230) to the sewage system is positioned lower than the bottom edge of the double-sink washbasin (11) and higher than the wall.

[0029] As it is shown in Figure 1 when looked at the lower sink (200) from the lower sink edge (250) on a horizontal axis, at the top lower sink faucet (210), below that the lower sink edge (250), lower sink overflow hole (220) and lower sink wall coupling part (240), below these the lower sink drain (230) and at the bottom lower sink drain pipe (240) are arranged in order.

[0030] The lower sink (200) was manufactured in a smaller size compared to the upper sink (100) in order not the constitute any difficulties during the use of the upper sink (100). As it is shown in Figure 1, compared to the upper sink edge (160), the lower sink edge (250) is positioned closer to the wall on the vertical axis.

[0031] Visual pollution is prevented with the double sink washbasin (10) since it closes upper sink faucet (110) where clean water on the wall enters the place where it is installed, lower sink faucet (210), upper sink hole (140) used to transport wastewater to the sewage

system and lower sink drain (230).

[0032] Washing sensor connection holes located on upper sink faucet (110) and the lower sink faucet (210) where the clean water enters in and coupling parts of the lower sink drain pipe (240) and the upper sink drain pipe (150) that assume the task of transferring the wastewater to sewage systems are in accordance with standards of Turkish Standards Institute.

[0033] The upper sink faucet (110) and the lower sink faucet (210) where the clean water comes into the system can have both mechanical and sensor-fitted designs.

[0034] Double-sink washbasin (10) can be manufactured with vitrified ceramic casting molds and on casting tables. Having said that, the method for double-sink washbasin (10) comprises the stages of;

- Casting,
- Dehumidification,
- Enameling,
- Kiln drying,
- Quality control.

[0035] In the stage of enameling of double-sink washbasin (10) which is one of the manufacturing method stages, the double-sink washbasin can be enameled by using antibacterial enamel in order to give the double-sink washbasin (10) an antibacterial characteristic.

Claims

1. A unibody double-sink washbasin (10) comprising a lower sink edge (250), a lower sink drain pipe (240), a lower sink drain (230), a lower sink faucet (210), a lower sink (200), an upper sink edge (160), an upper sink drain pipe (150), an upper sink overflow hole (130), an upper sink drain (140), wall mounting part (120), an upper sink faucet (110) and upper sink (100),

-a coupling piece which connects the upper sink (100) with the lower sink (200), a lower sink wall coupling part (260) whereby in use the lower sink contacts the wall, and a double sink washbasin bottom edge (11);

wherein the lower sink (200) has a smaller size compared to the upper sink (100) and the lower sink edge (250) is positioned to be closer to the wall than the upper sink edge (160) when said double-sink wash basin is mounted,

characterised in that

the lower sink (200) with the coupling piece (300) is, when viewed from the side, in a reversed "J" shape ,

and in that the double-sink washbasin comprises

- washing sensor connection holes located

- on upper sink faucet (110) and the lower sink faucet (210)
- and a lower sink overflow hole (220)
2. Double-sink washbasin (10) according to claim 1, **characterized in that** the double-sink washbasin (10) is manufactured out of porcelain or steel or glass or wood or natural stone or marble or Corian material, particularly out of ceramic material. 5
 3. Double-sink washbasin (10) according to claim 1, **characterized in that** its lower sink faucet (210) is positioned on the coupling piece (300). 10
 4. Double-sink washbasin (10) according to claim 1, **characterized in that** its upper sink edge (160) can be in crescent or square or rectangular shape. 15

Patentansprüche

1. Einteiliges Doppelwaschbecken (10) umfassend einen unteren Waschbeckenrand (250), ein unteres Waschbeckenablaufrohr (240), einen unteren Waschbeckenablauf (230), einen unteren Waschbeckenhahn (210), ein unteres Waschbecken (200), einen oberen Waschbeckenrand (160), ein oberes Waschbeckenablaufrohr (150), eine obere Waschbeckenüberlauföffnung (130), einen oberen Waschbeckenablauf (140), ein Wandbefestigungsteil (120), einen oberen Waschbeckenhahn (110) und ein oberes Waschbecken (100), ein Verbindungsstück, das das obere Waschbecken (100) mit dem unteren Waschbecken (200) verbindet, ein unteres Waschbeckenwandverbindungsteil (260) wodurch im Gebrauch das untere Waschbecken die Wand berührt, und eine Doppelwaschbecken-Unterkante (11); 20 25 30 35 40 45 50
- wobei das untere Waschbecken (200) im Vergleich zum oberen Waschbecken (100) eine kleinere Größe hat und der untere Waschbeckenrand (250) so positioniert ist, dass er näher an der Wand ist als der obere Waschbeckenrand (160), wenn das genannte Doppelwaschbecken montiert ist,
- dadurch gekennzeichnet, dass**
- das untere Waschbecken (200) mit dem Verbindungsstück (300) hat, von der Seite gesehen, die Form eines umgekehrten "J",
- und dass das Doppelwaschbecken umfasst
- Anschlussöffnungen des Waschsensors befinden sich an der oberen Waschbeckenhahn (110) und der unteren Waschbeckenhahn (210)
 - und eine untere Waschbeckenüberlauföffnung (220)

2. Doppelwaschbecken (10) nach Anspruch 1, **dadurch gekennzeichnet, dass** das Doppelwaschbecken (10) aus Porzellan oder Stahl oder Glas oder Holz oder Naturstein oder Marmor oder Corian-Material, insbesondere aus keramischem Material, hergestellt ist.
3. Doppelwaschbecken (10) nach Anspruch 1, **dadurch gekennzeichnet, dass** sein unterer Waschbeckenhahn (210) auf dem Verbindungsstück (300) positioniert ist.
4. Doppelwaschbecken (10) nach Anspruch 1, **dadurch gekennzeichnet, dass** sein oberer Waschbeckenrand (160) halbmondförmig oder quadratisch oder rechteckig sein kann.

Revendications

1. Un lavabo monocoque à double évier (10) comprenant un bord d'évier inférieur (250), un tuyau d'évacuation d'évier inférieur (240), une évacuation d'évier inférieure (230), un robinet d'évier inférieur (210), un évier inférieur (200), un bord d'évier supérieur (160), un tuyau d'évacuation d'évier supérieur (150), un trou de trop-plein d'évier supérieur (130), une évacuation d'évier supérieur (140), une partie de montage mural (120), une partie supérieure robinet d'évier (110) et évier supérieur (100), une pièce d'accouplement reliant l'évier supérieur (100) à l'évier inférieur (200), une partie d'accouplement de paroi d'évier inférieure (260) où, lors de l'utilisation, l'évier inférieur entre en contact avec le mur, et un bord inférieur de lavabo à double évier (11); dans lequel l'évier inférieur (200) a une dimension plus petite par rapport à l'évier supérieur (100) et le bord d'évier inférieur (250) est positionné pour être plus proche du mur que le bord d'évier supérieur (160) lorsque ledit lavabo à double évier est monté, **caractérisé en ce que** l'évier inférieur (200) avec la pièce d'accouplement (300) est, lorsqu'on regarde de côté, en forme de "J" inversé, et **en ce que** le lavabo à double évier comprend 40 45 50
 - des trous de connexion du capteur de lavage situés sur le robinet supérieur de l'évier (110) et le robinet inférieur de l'évier (210)
 - et un trou de trop-plein d'évier inférieur (220).
2. Lavabo à double évier (10) selon la revendication 1, **caractérisé en ce que** le lavabo à double évier (10) est fabriqué en porcelaine ou en acier ou en verre ou en bois ou en pierre naturelle ou en marbre ou en matériau Corian, notamment en matériau céramique.

3. Lavabo à double évier (10) selon la revendication 1, **caractérisé en ce que** son robinet de lavabo inférieur (210) est positionné sur la pièce d'accouplement (300).

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4. Lavabo à double évier (10) selon la revendication 1, **caractérisé en ce que** son bord supérieur d'évier (160) peut être en forme de croissant ou carré ou rectangulaire.

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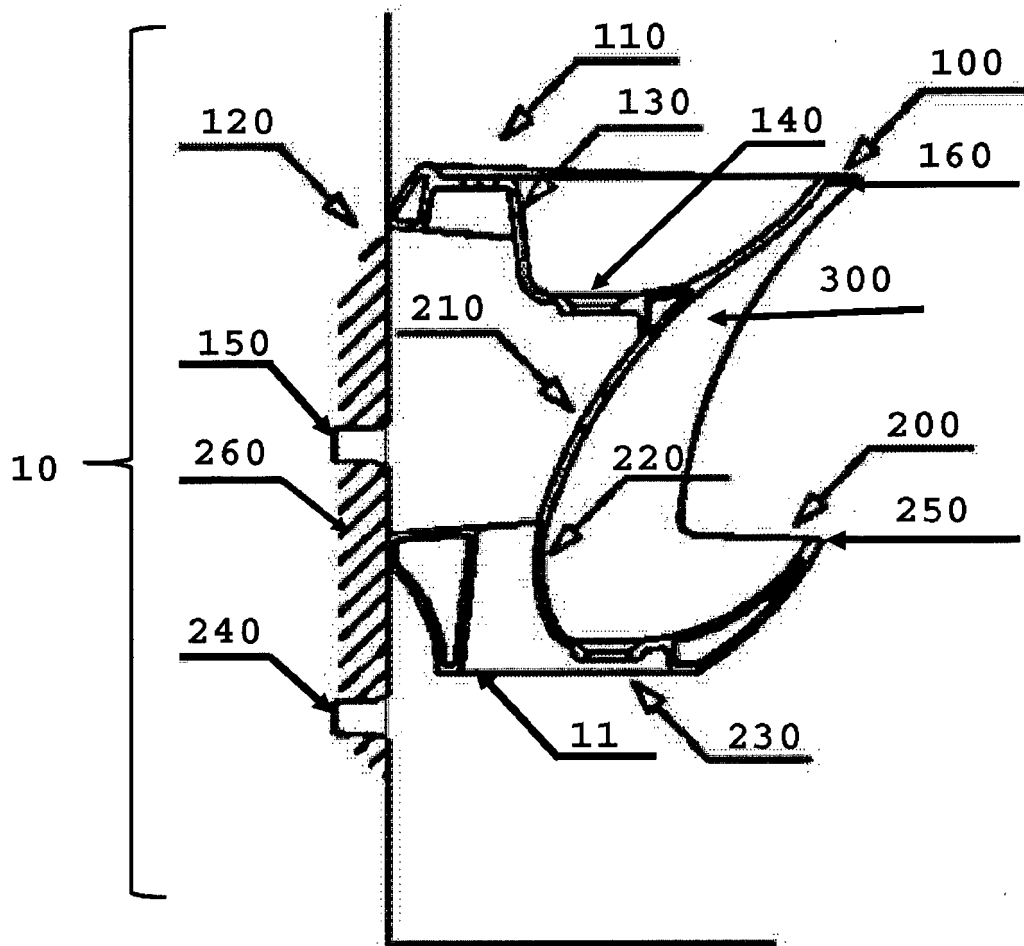


Figure 1

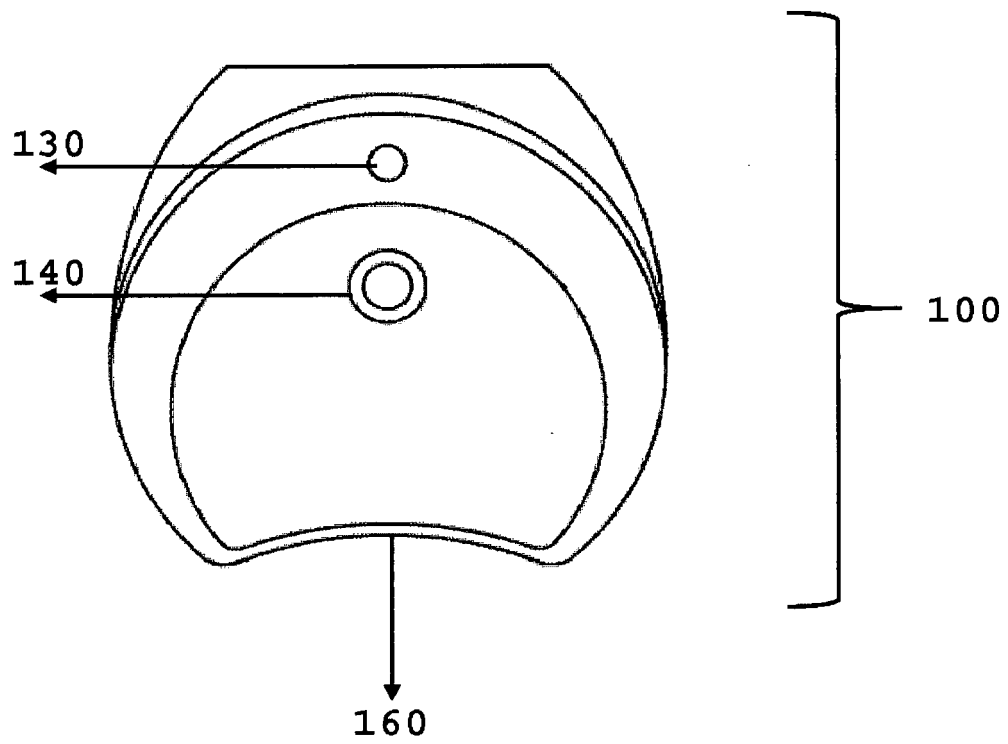


Figure 2

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- CN 202925629 U [0011]
- US 1616313 A [0012]
- FR 1357113 A [0012]