

A MULTIFUNCTIONAL MEDICAL HAND-WASHING BASIN

Utility Model Patent — English Translation

English translation prepared for reference only. In case of any discrepancy, the original Chinese patent publication (CN 210767049 U) shall prevail.

(19)	Issuing authority	National Intellectual Property Administration of the People's Republic of China (CNIPA)
(12)	Document type	Utility Model Patent
(10)	Authorization publication number	CN 210767049 U
(45)	Authorization publication date	2020.06.16
(21)	Application number	201921360336.3
(22)	Filing date	2019.08.20
(73)	Patentee	Dongguan Pengchi Purification Technology Co., Ltd.
	Address	Tangyilangwei Road, Tangjiao Village, Chashan Town, Dongguan City, Guangdong Province 523378, China
(72)	Inventors	Li Dexiong; Hu Guopeng; Wang Hai'ou
(74)	Patent agency	Dongguan Yongqiao Intellectual Property Agency (General Partnership) 44400
	Patent agent	Jiang Yabing
(51)	International Patent Classification (IPC)	E03C 1/14(2006.01); A47G 1/02(2006.01); F21V 33/00(2006.01)
(54)	Title of utility model	A Multifunctional Medical Hand-Washing Basin

(57) ABSTRACT

The present utility model provides a multifunctional medical hand-washing basin, comprising a hand-washing basin body, a water sink being provided in the hand-washing basin body, a mirror frame being fixed on the hand-washing basin body, n sensor water taps being provided on one side of the mirror frame, n being an integer greater than 1, and a control electrical box being further provided in the hand-washing basin body; a mirror is fixed on a side of the mirror frame adjacent to the sensor water taps, the mirror comprises a glass plate, a side of the glass plate away from the sensor water taps is covered with a reflective layer, a side of the reflective layer away from the glass plate is provided with a plurality of uniformly distributed anti-fog films, the reflective layer is provided with a display light-transmitting notch, a touch-control light-transmitting notch and a first light bar light-transmitting notch, a display module is provided on the display light-transmitting notch, a touch switch is provided on the touch-control light-transmitting notch, and a first light-emitting light bar is provided on the first light bar light-transmitting notch. The present utility model can provide a user with a front-emitting, dead-angle-free illumination effect, can also provide the user with an effect of displaying various data, and can control operation of the anti-fog films as required.

CLAIMS

1. A multifunctional medical hand-washing basin, comprising:
 - a hand-washing basin body (10), a water sink (11) being provided in the hand-washing basin body (10), a mirror frame (12) being fixed on the hand-washing basin body (10), n sensor water taps (13) being provided on one side of the mirror frame (12), n being an integer greater than 1, and a control electrical box (14) being further provided in the hand-washing basin body (10);
 - a mirror (20) fixed on a side of the mirror frame (12) adjacent to the sensor water taps (13), the mirror (20) comprising a glass plate (21), a side of the glass plate (21) away from the sensor water taps (13) being covered with a reflective layer (22), a side of the reflective layer (22) away from the glass plate (21) being provided with a plurality of uniformly distributed anti-fog films (23), the reflective layer (22) being provided with a display light-transmitting notch (221), a touch-control light-transmitting notch (222) and a first light bar light-transmitting notch (223), a display module (31) being provided on the display light-transmitting notch (221), a touch switch (32) being provided on the touch-control light-transmitting notch (222), a first light-emitting light bar (33) being provided on the first light bar light-transmitting notch (223); and the display module (31), the touch switch (32) and the first light-emitting light bar (33) all being electrically connected to the control electrical box (14).
2. The multifunctional medical hand-washing basin according to claim 1, characterized in that a water heater (15) is provided in the hand-washing basin body (10), and the water heater (15) is connected to inlets of the n sensor water taps (13).
3. The multifunctional medical hand-washing basin according to claim 2, characterized in that a maintenance door (16) is provided on one side of the hand-washing basin body (10).
4. The multifunctional medical hand-washing basin according to claim 1, characterized in that the reflective layer (22) is an aluminum layer or a silver layer.
5. The multifunctional medical hand-washing basin according to claim 1, characterized in that each anti-fog film (23) is an electric heating film.
6. The multifunctional medical hand-washing basin according to claim 1, characterized in that the reflective layer (22) is further provided with a second light bar light-transmitting notch (224), a second light-emitting light bar (34) is provided in the second light bar light-transmitting notch (224), the second light-emitting light bar (34) is electrically connected to the control electrical box (14), and the first light bar light-transmitting notch (223) and the second light bar light-transmitting notch (224) are located on two opposite sides of the reflective layer (22) respectively.

DESCRIPTION

A Multifunctional Medical Hand-Washing Basin

TECHNICAL FIELD

[0001] The present utility model relates to hand-washing basins, and specifically discloses a multifunctional medical hand-washing basin.

BACKGROUND ART

[0002] A hand-washing basin is used to clean dirt from the hands; in hospital operating rooms, a hand-washing station is also indispensable equipment, and doctors need to wash their hands and sterilize them at the hand-washing station both before and after an operation.

[0003] In the prior art, a hand-washing basin is generally provided with at least one water tap and a mirror, and can simultaneously be used by at least one person for hand washing; during hand washing, users need to observe the cleaning effect of their hands, and some users also need to tidy their appearance through the mirror; in different environments, illumination light is inevitably blocked by other obstacles and forms shadows where the user is observing, affecting the user's normal observation; in addition, factors such as temperature differences and splashing water droplets will cause water mist to form on the surface of the mirror, obstructing the user's view.

SUMMARY OF THE UTILITY MODEL

[0004] Based on this, it is necessary to address the problems of the prior art and provide a multifunctional medical hand-washing basin, which can provide a user with a front, dead-angle-free illumination effect, can effectively remove water mist on the mirror as required, and can also provide the user with a data display function.

[0005] To solve the problems of the prior art, the present utility model discloses a multifunctional medical hand-washing basin, comprising a hand-washing basin body, a water sink being provided in the hand-washing basin body, a mirror frame being fixed on the hand-washing basin body, n sensor water taps being provided on one side of the mirror frame, n being an integer greater than 1, and a control electrical box being further provided in the hand-washing basin body;

[0006] a mirror is fixed on a side of the mirror frame adjacent to the sensor water taps, the mirror comprises a glass plate, a side of the glass plate away from the sensor water taps is covered with a reflective layer, a side of the reflective layer away from the glass plate is provided with a plurality of uniformly distributed anti-fog films, the reflective layer is provided with a display light-transmitting notch, a touch-control light-transmitting notch and a first light bar light-transmitting notch, a display module is provided on the display light-transmitting notch, a touch switch is provided on the touch-control light-transmitting notch, and a first light-emitting light bar is provided on the first light bar light-transmitting notch.

[0007] Further, a water heater is provided in the hand-washing basin body, and the water heater is connected to inlets of the n sensor water taps.

[0008] Further, a maintenance door is provided on one side of the hand-washing basin body.

[0009] Further, the reflective layer is an aluminum layer or a silver layer.

[0010] Further, each anti-fog film is an electric heating film.

[0011] Further, the reflective layer is further provided with a second light bar light-transmitting notch, a second light-emitting light bar is provided in the second light bar light-transmitting notch, the second light-emitting light bar is electrically connected to the control electrical box, and the first light bar light-transmitting notch and the second light bar light-transmitting notch are located on two opposite sides of the reflective layer.

[0012] The present utility model has the following beneficial effects: the present utility model discloses a multifunctional medical hand-washing basin, in which light-transmitting notches are provided in the reflective layer of the mirror, and a display module and light-emitting light bars are provided on the back of the mirror, so that a front-emitting, dead-angle-free illumination effect can be provided for the user, and an effect of displaying various data can also be provided for the user; the touch-type switch can also control starting and stopping of the anti-fog films as required, thereby removing water mist on the mirror and providing the user with an obstruction-free reflective mirror surface; all the electrical modules are located on the

back of the mirror, which can effectively prevent normal operation of the electrical modules from being affected by contact with water.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] FIG. 1 is a three-dimensional structural schematic view of the present utility model.

[0014] FIG. 2 is a three-dimensional structural schematic view of the present utility model from another viewing angle.

[0015] FIG. 3 is a front-view structural schematic view of the present utility model.

[0016] FIG. 4 is a cross-sectional structural schematic view of the present utility model taken along A-A' in FIG. 3.

[0017] FIG. 5 is an enlarged structural schematic view of B in FIG. 4 of the present utility model.

[0018] FIG. 6 is an enlarged structural schematic view of C in FIG. 4 of the present utility model.

[0019] FIG. 7 is an enlarged structural schematic view of D in FIG. 4 of the present utility model.

[0020] The reference signs are as follows: hand-washing basin body 10; water sink 11; mirror frame 12; sensor water tap 13; control electrical box 14; water heater 15; maintenance door 16; mirror 20; glass plate 21; reflective layer 22; display light-transmitting notch 221; touch-control light-transmitting notch 222; first light bar light-transmitting notch 223; second light bar light-transmitting notch 224; anti-fog film 23; display module 31; touch switch 32; first light-emitting light bar 33; second light-emitting light bar 34.

DETAILED DESCRIPTION OF EMBODIMENTS

[0021] For a further understanding of the features, technical means, and specific objects and functions achieved by the present utility model, the present utility model will be described in further detail below with reference to the accompanying drawings and specific embodiments.

[0022] Reference is made to FIGS. 1 through 7.

[0023] An embodiment of the present utility model discloses a multifunctional medical hand-washing basin, comprising a hand-washing basin body 10; a water sink 11 is provided in the hand-washing basin body 10; a mirror frame 12 is fixed on the hand-washing basin body 10; n sensor water taps 13 are provided on one side of the mirror frame 12, the sensor water taps 13 are located above the water sink 11, n is an integer greater than 1; a control electrical box 14 is further provided in the hand-washing basin body 10, the control electrical box 14 comprises a control circuit, a control end of each sensor water tap 13 is electrically connected to an output end of the control electrical box 14, each sensor water tap 13 may be a water tap structure controlled by a human body proximity sensor, the human body proximity sensor is electrically connected to the control electrical box 14, and the human body proximity sensor is provided on one side of the hand-washing basin body 10;

[0024] A mirror 20 is fixed on a side of the mirror frame 12 adjacent to the sensor water taps 13; the mirror 20 comprises a glass plate 21; a side of the glass plate 21 away from the sensor water taps 13 is covered with a reflective layer 22; a side of the reflective layer 22 away from the glass plate 21 is provided with a plurality of uniformly distributed anti-fog films 23; operation of the anti-fog films 23 can achieve defogging of the mirror 20; the reflective layer 22 is provided with a display light-transmitting notch 221, a touch-control light-transmitting notch 222 and a first light bar light-transmitting notch 223; the anti-fog films 23 are arranged while avoiding the display light-transmitting notch 221, the touch-control light-transmitting notch 222 and the first light bar light-transmitting notch 223; a display module 31 is provided on the

display light-transmitting notch 221; preferably, the display module 31 is a digital display liquid crystal module; a PCB of the display module 31 may be provided, as required, with circuit structures such as a clock and temperature monitoring; the display module 31 may adopt a large-screen clock mirror-surface display module of model XM518; a touch switch 32 is provided on the touch-control light-transmitting notch 222; a plurality of touch-control light-transmitting notches 222 are provided, one touch-control light-transmitting notch 222 corresponds to one touch switch 32, and one touch switch 32 corresponds to one controlled object, e.g. the anti-fog films 23 and the first light-emitting light bar 33 are both controlled objects; a first light-emitting light bar 33 is provided on the first light bar light-transmitting notch 223; preferably, the first light-emitting light bar 33 comprises a plurality of LED lamp beads; the display module 31, the touch switch 32 and the first light-emitting light bar 33 are all electrically connected to the control electrical box 14; an output end of the control electrical box 14 is electrically connected to an input end of the display module 31 and an input end of the first light-emitting light bar 33; and an input end of the control electrical box 14 is electrically connected to an output end of the touch switch 32.

[0025] The sensor water taps 13 are triggered to achieve sensor-type water use; the touch switch 32 can control on/off of the first light-emitting light bar 33 and the anti-fog films 23; light emitted by the first light-emitting light bar 33 passes through the first light bar light-transmitting notch 223 and the glass plate 21 to achieve an illumination effect; the anti-fog films 23 can defog the mirror 20, ensuring clarity when the user uses the mirror 20; the user can observe the display module 31 through the display light-transmitting notch 221, so as to obtain various required data; the display module 31 can be set to display different data according to different requirements, and mist will not directly reach the display module 31, the touch switch 32 and the first light-emitting light bar 33, which can effectively ensure the service life of the display module 31, the touch switch 32 and the first light-emitting light bar 33.

[0026] In the present utility model, light-transmitting notches are provided in the reflective layer 22 of the mirror 20, and a display module 31 and light-emitting light bars are provided on the back of the mirror 20, so that a front-emitting, dead-angle-free illumination effect can be provided for the user, and an effect of displaying various data can also be provided for the user; the touch-type switch can also control starting and stopping of the anti-fog films 23 as required, thereby removing water mist on the mirror and providing the user with an obstruction-free reflective mirror surface; all the electrical modules are located on the back of the mirror 20, which can effectively prevent normal operation of the electrical modules from being affected by contact with water.

[0027] In this embodiment, a water heater 15 is provided in the hand-washing basin body 10, the water heater 15 is connected to inlets of the n sensor water taps 13, the water heater 15 is further connected to the touch switch 32 through the control electrical box 14, and the water heater 15 can be started through the touch switch 32, so as to adjust the temperature of water discharged from the sensor water taps 13.

[0028] Based on the above embodiment, a maintenance door 16 is provided on one side of the hand-washing basin body 10, and structures such as the water heater 15 and the control electrical box 14 can be repaired by opening the maintenance door 16.

[0029] In this embodiment, the reflective layer 22 is an aluminum layer or a silver layer.

[0030] In this embodiment, each anti-fog film 23 is an electric heating film; the touch switch 32 can switch the electric heating film on and off through the control electrical box 14, and heat generated by the electric heating film can effectively remove water mist on the surface of the

mirror 20.

[0031] In this embodiment, the reflective layer 22 is further provided with a second light bar light-transmitting notch 224, a second light-emitting light bar 34 is provided in the second light bar light-transmitting notch 224, preferably the second light-emitting light bar 34 comprises a plurality of LED lamp beads, the second light-emitting light bar 34 is electrically connected to the control electrical box 14, an input end of the second light-emitting light bar 34 is electrically connected to an output end of the control electrical box 14, and the first light bar light-transmitting notch 223 and the second light bar light-transmitting notch 224 are located on two opposite sides of the reflective layer 22, which can effectively ensure the illumination effect formed by cooperation of the two light bars and improve the uniformity of overall illumination brightness; preferably, a plurality of first light bar light-transmitting notches 223 and a plurality of second light bar light-transmitting notches 224 are provided and uniformly distributed, and different combinations can be set according to different application requirements.

[0032] The above embodiments merely express several embodiments of the present utility model, and the description thereof is relatively specific and detailed, but it should not be construed as limiting the patent scope of the present utility model. It should be noted that those of ordinary skill in the art may make several modifications and improvements without departing from the concept of the present utility model, and these shall all fall within the protection scope of the present utility model. Therefore, the protection scope of the present utility model patent shall be defined by the appended claims.

DRAWINGS

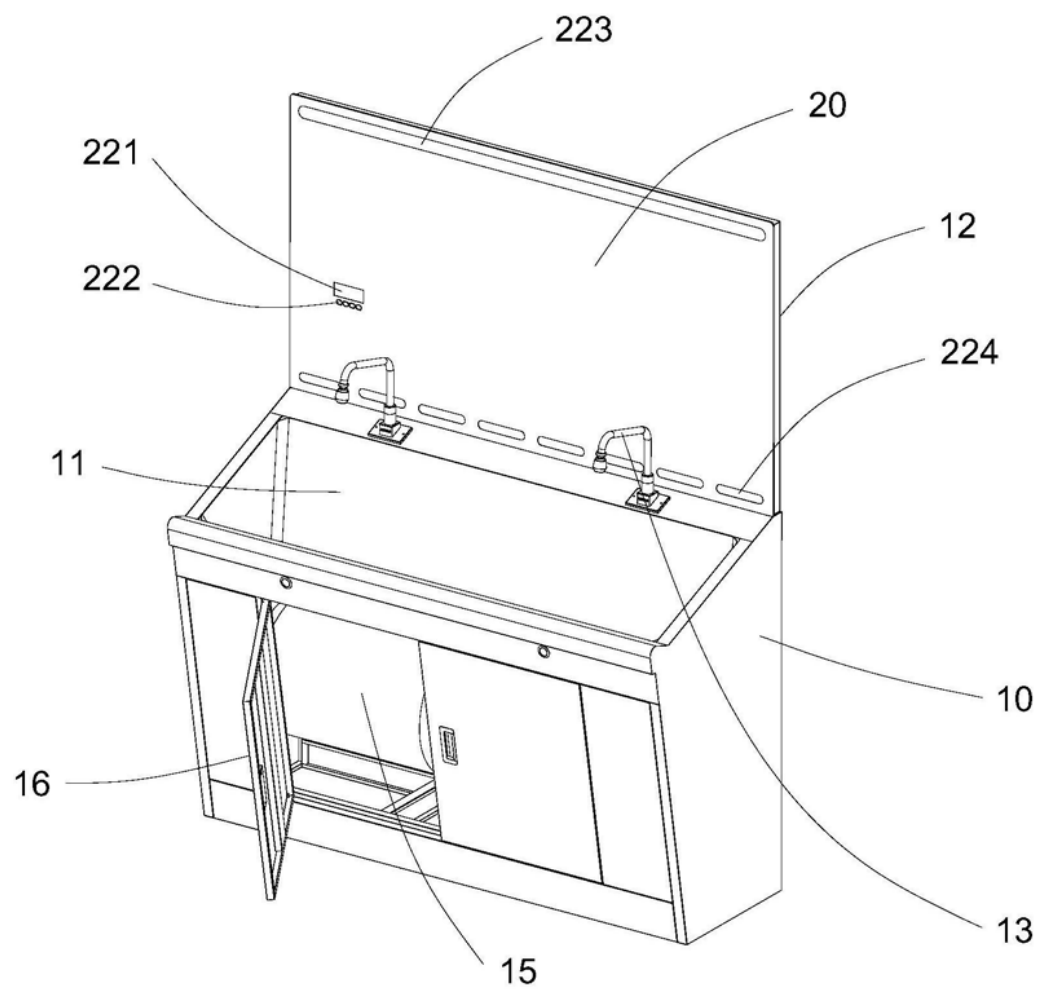


FIG. 1 — Three-dimensional structural schematic view of the multifunctional medical hand-washing basin

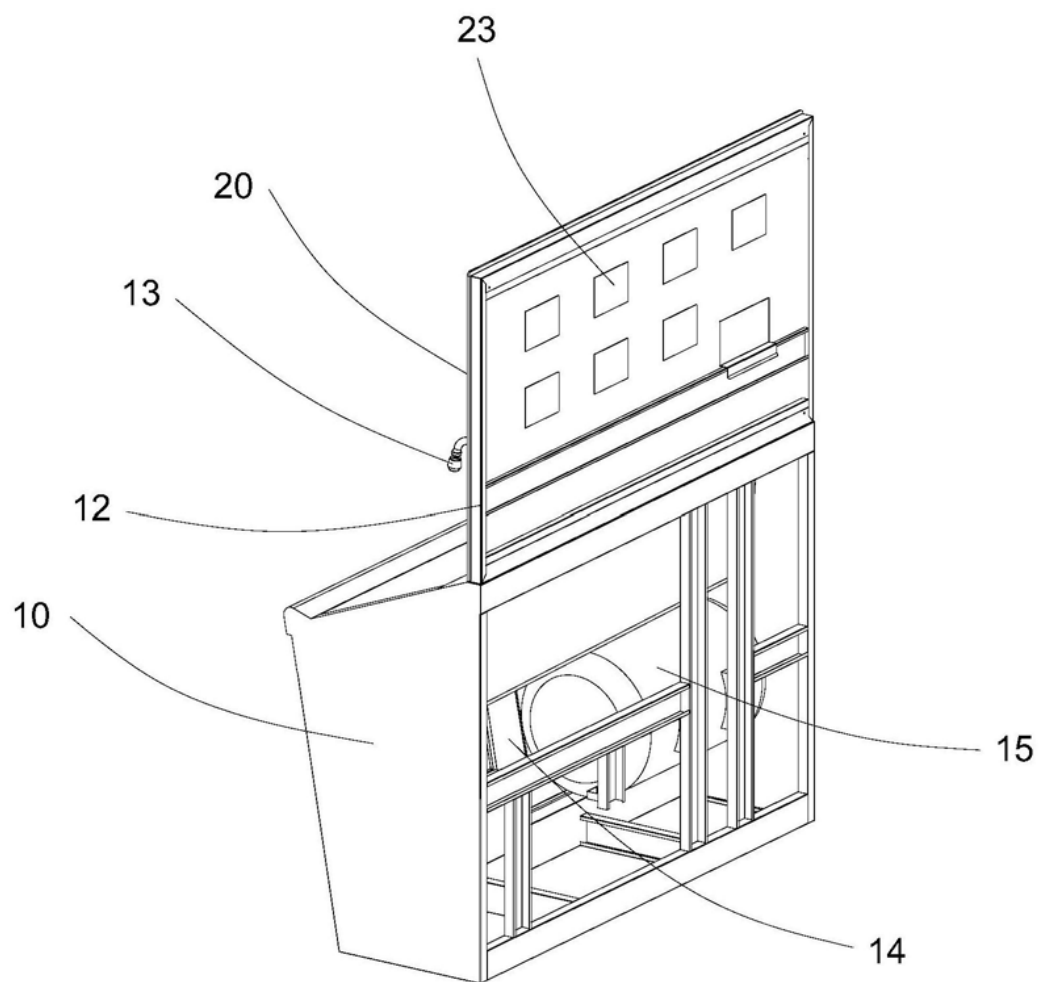


FIG. 2 — Three-dimensional structural schematic view from another viewing angle

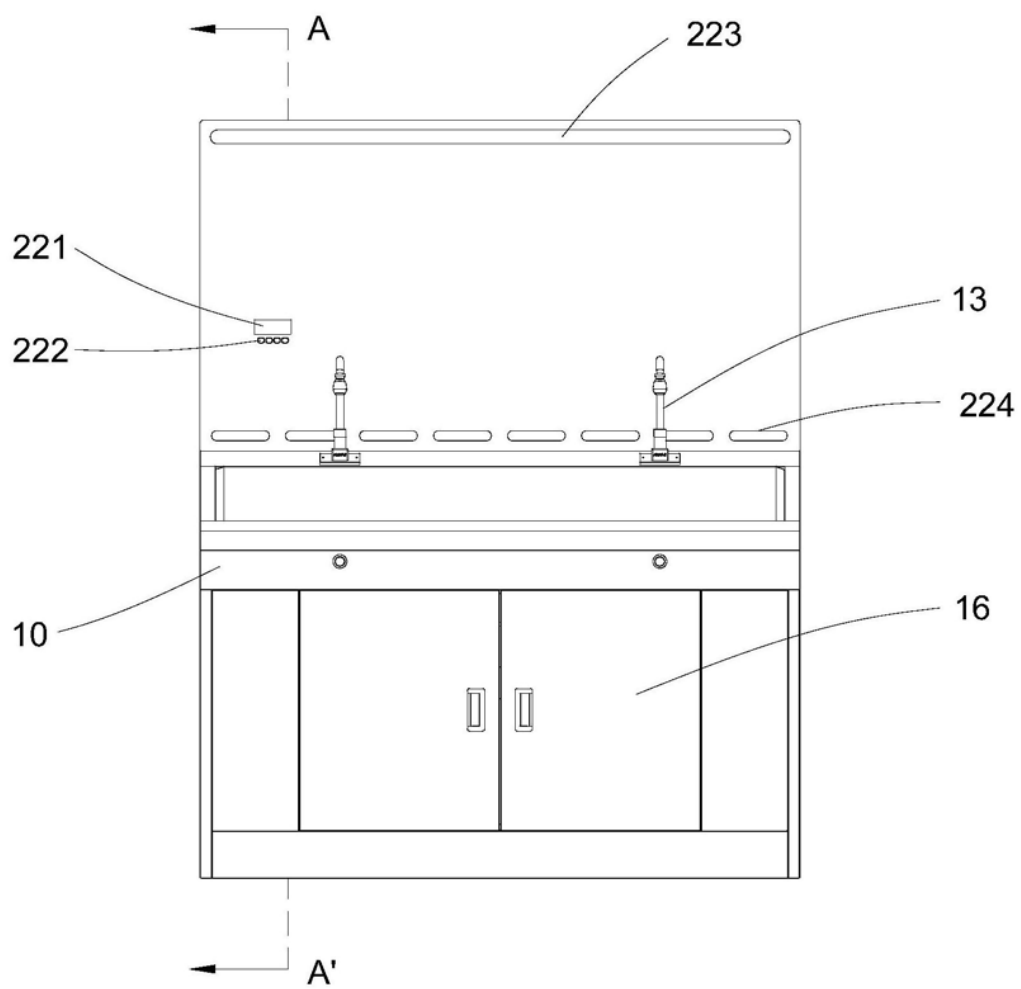


FIG. 3 — Front-view structural schematic view

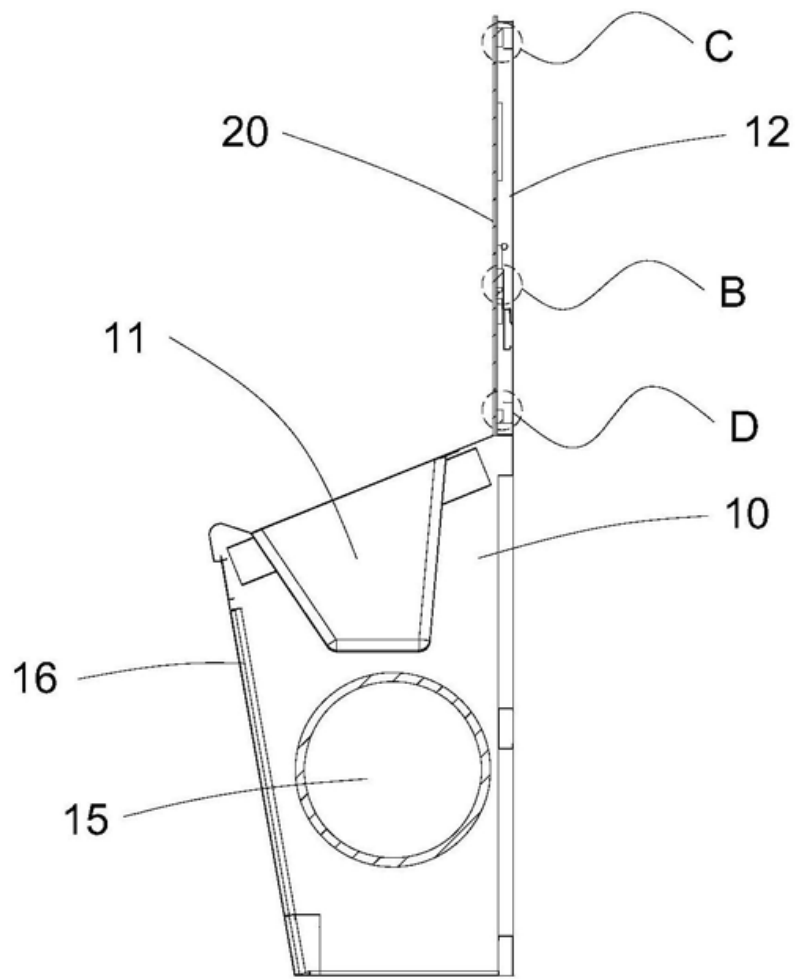


FIG. 4 — Cross-sectional structural schematic view taken along A-A' in FIG. 3

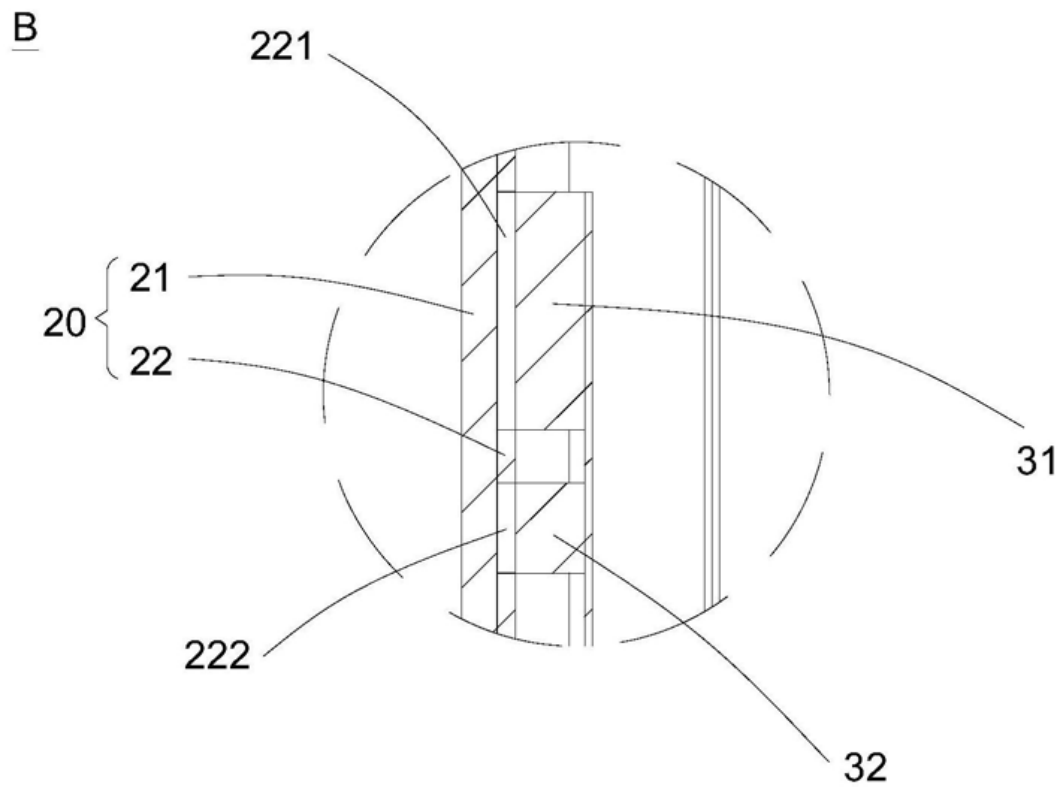


FIG. 5 — Enlarged structural schematic view of B in FIG. 4

C

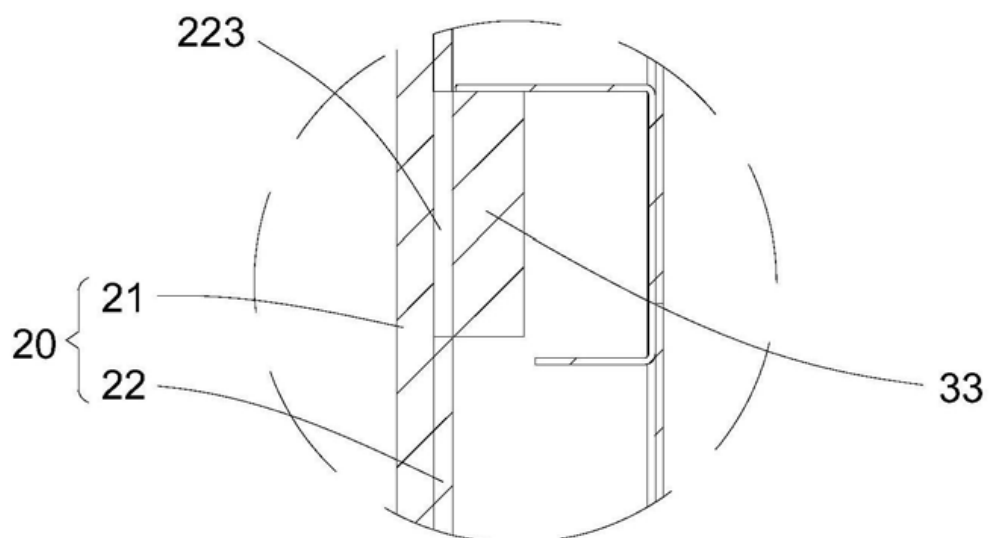


FIG. 6 — Enlarged structural schematic view of C in FIG. 4

D

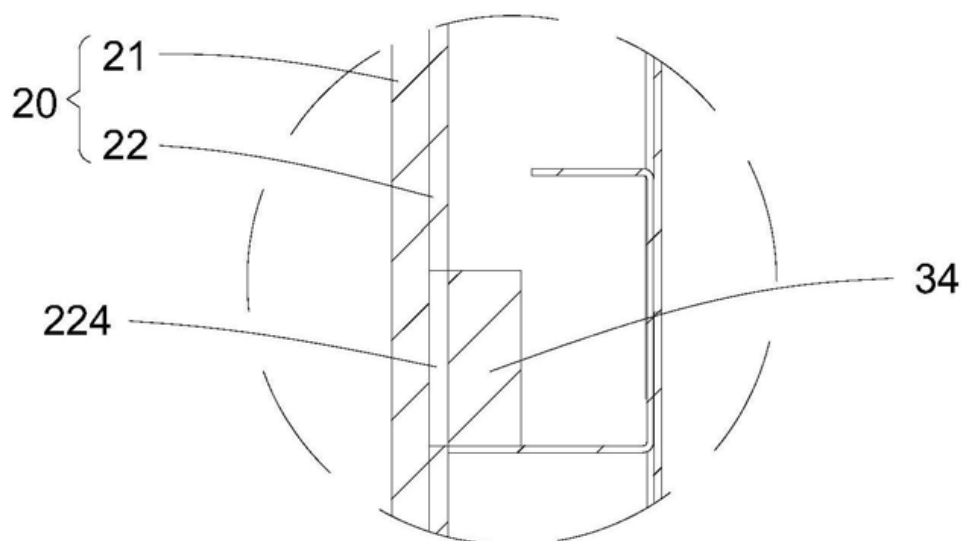


FIG. 7 — Enlarged structural schematic view of D in FIG. 4