CONCEALED DRINKING FOUNTAIN

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8 Claims. (Cl. 299—13)

This invention relates to a concealed drinking fountain.

The principal object of my invention is to provide a sanitary drinking fountain designed to be housed in a cabinet or compartment in the wall for convenience in making pipe connections for supply of water thereto and drainage of water therefrom, and having the fountain proper swiveled for movement into and out of the cabinet, preferably with the movement of the cabinet door in closing and opening. The invention is illustrated in the accompanying drawing, in which—

Figure 1 is a vertical section through a concealed drinking fountain made in accordance with my invention, the section being on the line 1—1 of Fig. 2;

Fig. 2 is a horizontal section showing the fountain in plan view;

Fig. 3 is similar to Fig. 2, but shows the door opened and the fountain extended, and Fig. 4 is a sectional detail on the line 4—4 of Fig. 3.

The same reference numerals are applied to corresponding parts throughout the views.

The fountain, or “bubbler,” is designed for location either in a cabinet set in the wall between the studs or built in the wall between adjacent studs. For example, the fountain may be incorporated in a cabinet below the medicine cabinet in a bathroom or else in a separate lower compartment of a specially constructed medicine cabinet. Of course, the invention is not confined to use in that way but may be used wherever drinking facilities are desired and where a unit having the characteristics of the present one would be advantageous.

Referring to the drawing, the fountain is illustrated as built in a compartment 5 between adjacent studs 6 of a wall. A door 7 hinged at 8 affords access to the compartment 5 and has a suitable knob 9 thereon for use in opening and closing the door. The fountain, indicated generally by the numeral 10, comprises a cup or basin 11, at the center of which is a bubbler head 12, of any suitable or preferred construction. Two pipes 13 and 14 extend from the fountain, the pipe 13 affording connection between the head 12 and a water supply valve 15, and the pipe 14 affording connection between the cup 11 and a drain pipe 16. The latter, it will be understood, conducts waste water to the sewer, through the usual trap (not shown). There are elbows at 17 and 18 on the same vertical axis connected to the inner ends of the pipes 13 and 14, respectively, to complete the connections just mentioned. The elbow 17 is fastened rigidly to the rotary part 19 of the valve 15. The latter has a flat bottom surface and swivels on the flat seat 20 provided on the body 21 of the valve 15. A spring washer 22 resting on the flange 23 of the part 19 is compressed by the gland nut 24 threading on the body 21 of the valve, whereby to hold the rotary part seated firmly enough to prevent leakage and yet allow swivel action. The discharge port 25 is brought into register with a delivery port 26, as indicated in Fig. 4, when the fountain 10 is extended from the compartment 5 and in that way, water is delivered to the bubbler head 12. The valve 15 has connection with the city water supply by way of pipe 27. An adjustable restriction valve 28 is provided between the valve 15 and the water supply pipe and is adjusted to secure the proper rate of flow. Once this valve is adjusted, it need not be operated again, unless the flow is to be increased or decreased, or the fountain is to be shut off entirely. When the fountain 10 is moved in a counterclockwise direction from the position shown in Fig. 3, the port 23, in of course, moved out of register with the port 26 and the flow of water is shut off; consequently, there is no flow when the fountain is in its out of the way position in the compartment 5 in the wall.

The elbow 18 on the inner end of the pipe 14 has a reduced portion 29 swiveled in a hole 30 in a cap 31 threaded on the upper end of the drain pipe 16. The cap 31 is suitably formed integral with a bracket 32 fastened, as at 33, to the side of the stud 6, whereby to provide a good support for the floor to swivel upon and at the same time provide support for the drain pipe. A threaded projection is shown at 34 on the bracket 32 for attachment of the body 21 of the valve to the bracket, whereby to further support the fountain for swivel movement and provide support also for the water supply pipe 27 and restriction valve 28. As stated before, the elbows 17 and 18 are disposed on a common vertical axis so that the fountain is free to swing back and forth without binding. A yoke 35 having an elongated slot 36 to receive the pipe 13 is fastened to the inside of the door 7, as at 37, and is arranged to swing the fountain automatically into and out of the compartment 5 in the closing and opening of the door. It is desirable to have some play between the door and fountain so that the fountain is not too close to the door when extended and there is, furthermore, less likelihood of accidentally moving the extended fountain by coming in contact with the door.
This drinking fountain is obviously sanitary because it is well protected against accumulation of dust and dirt theron while not in use. While the fountain has been especially designed for use in homes, apartments and hotels as a drinking facility, it is considered suitable for use on railroad cars and other vehicles where the folding away feature would be of special advantage. In the case of railroad cars, a unit of this type would undoubtedly be handy for toothbrushing.

It is believed the foregoing description conveys a good understanding of the objects and advantages of my invention. It should be understood that while I prefer to have the compartment closed by a door, the door may be omitted under certain circumstances. Furthermore, it may be found preferable in some instances to omit the connection 35 between the fountain and door. The appended claims have been drawn with a view to covering all legitimate modifications and adaptations.

I claim:

1. In a liquid dispensing device, the combination of a support in a wall compartment, a water supply valve on said support and a drain pipe adjacent said support in the wall, a water supply pipe and a water drain pipe swiveled on a common vertical axis for swinging movement with respect to the aforesaid valve and drain pipe, respectively, the water supply pipe having water delivered thereto from the valve only when the pipe is extended from the wall in a predetermined position for use of the dispensing device, a drain pipe into which the water supply pipe discharges, said cup communicating with the outer end of the water drain pipe for drainage of water when the device is in extended position, and a door for closing the wall compartment to conceal said device therein, said door being hinged on a vertical axis adjacent the swivel axis of the dispensing device and having an operating connection with said device so as to automatically swing the same out of and into the compartment in the opening and closing of the door.

2. In a drinking fountain, the combination of a support in a wall compartment, a water supply valve on said support and a drain pipe adjacent said support in the wall, a water supply pipe and a water drain pipe swiveled on a common vertical axis for swinging movement with respect to the aforesaid valve and drain pipe, respectively, the water supply pipe having water delivered thereto from the valve only when the pipe is extended from the wall in a predetermined position for use of the fountain, a water discharge head on the outer end of said water supply pipe, a drain cup surrounding said head from below and communicating with the outer end of the water drain pipe for drainage of unused water when the fountain is extended, and a door serving as a closure for the wall compartment to completely conceal the fountain from view in its retracted position when the door is closed, said door being hinged on a vertical axis adjacent the swivel axis of the fountain and having a lost motion operating connection with a swingable portion of said fountain to swing the fountain out of and into the compartment automatically in the opening and closing of the door, the lost motion connection affording a predetermined spaced relation between the drain cup and the inside of the door when open.

3. A drinking fountain as set forth in claim 2 wherein the last mentioned operating connection comprises a slotted yoke member on the inside of the door so slidable engaging one of the swingable pipes of said fountain and so slotted as to guide it positively to its extended position in the opening of the door and positively return the same in the closing of the door.

4. In a drinking fountain, the combination of a support in a wall compartment, a water supply valve on said support and a drain pipe adjacent said support in the wall, a water supply pipe and a water drain pipe swiveled on a common vertical axis for swinging movement with respect to the aforesaid valve and drain pipe, respectively, the water supply pipe having water delivered thereto from the valve only when the pipe is extended from the wall in a predetermined position for use of the fountain, a water drain head on the outer end of said water supply pipe, a drain cup surrounding said head from below and communicating with the outer end of the water drain pipe for drainage of unused water when the fountain is extended, a door hinged on a vertical axis adjacent the aforesaid swivel axis of the fountain for swinging movement relative to the wall to open and close the compartment and conceal the fountain from view when the door is closed, and a yoke extending in an inward curve from a point on the inside of the door in outwardly spaced relation to the hinge axis thereof and having a slotted portion so slidable receiving one of the swingable pipes of the fountain and so slotted as to positively move the fountain in and out relative to said compartment in the closing and opening of the door.

5. A drinking fountain as set forth in claim 4, wherein the slot in said yoke is elongated beyond the extent required to move the fountain in and out and so as to provide a predetermined amount of play between the door and fountain, whereby to allow the door to stand close to the fountain in closed position and farther away from the fountain in opened position.

6. In a built-in wall fountain adapted to be installed between conventional spaced studing in a wall, the combination in a wall compartment of a supporting bracket on one of the spaced studing at one side of said compartment, a water supply valve mounted on said bracket having a rotary valve member arranged to turn with respect to the body thereof to open and close the valve, a horizontal swingable pipe carried on the rotary member and having a bubbler head on the free end thereof adjacent the other of the spaced studing, a drain cup for the bubbler head, a drain pipe below said bracket in the wall, a drain connection communicating with the drain cup swiveled on the bracket and communicating with the drain pipe, the aforesaid valve being constructed so as to allow flow of water to the bubbler head when the bracket is swung out from the wall compartment, and a door closing said compartment and hinged adjacent the first of the spaced studing and operatively connected with the first mentioned pipe to swing the same out of the compartment automatically in the opening of the door.

7. A drinking fountain as set forth in claim 6 including a cap for the drain pipe provided on the bracket, the cap portion of the bracket having the swivel thereon for the drain connection.

8. A built-in wall fountain comprising, in combination, in a wall compartment between spaced studing, a support fastened to one stud at one side of the compartment, a shut off valve and a drain swivel on said support, a water de-
livery pipe so connected to the shut off valve as to have water delivered thereto when the pipe is extended from the wall, a bubbler head on the outer end of said pipe, a drain cup for said head, a drain connection communicating with the drain cup at one end and at the other end with the aforesaid drain swivel, a water supply pipe in the wall between the studding communicating with the shut off valve, a drain pipe also disposed in the wall between said studding communicating with the drain swivel, and a door serving as a closure for said compartment and so connected with the water delivery pipe as to move the bubbler head and drain connection automatically out of the compartment in the opening of the door and into the compartment in the closing of the door.

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