May 15, 1934. J. FRASER 1,958,992

LAVATORY WASTE CONDUIT SYSTEM

Filed Sept. 16, 1931

Fig. 1.

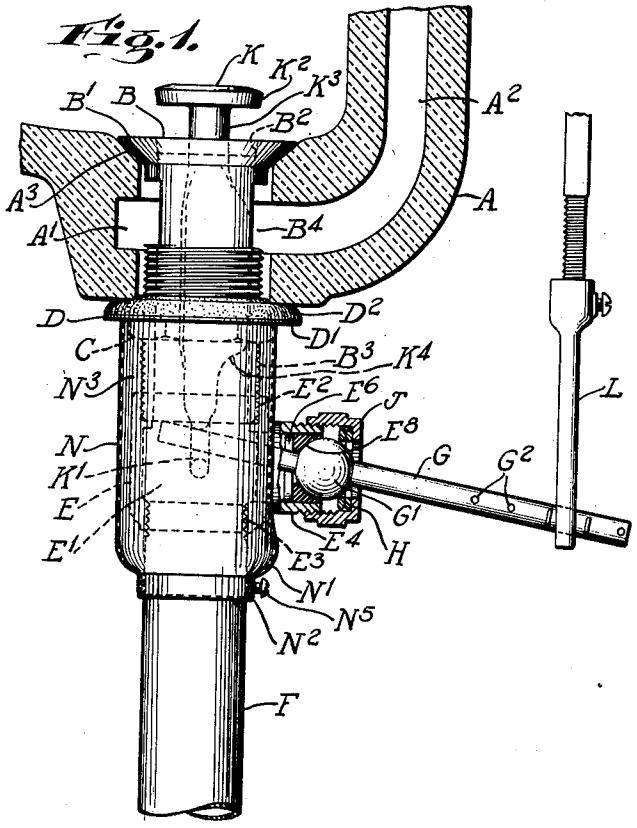



Fig. 2.

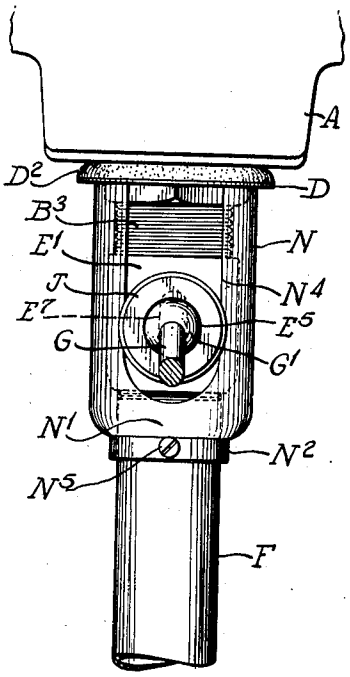



Fig. 3.

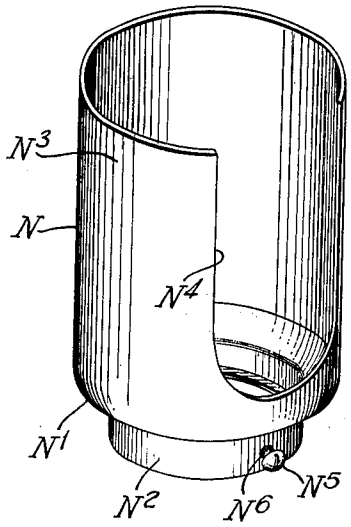
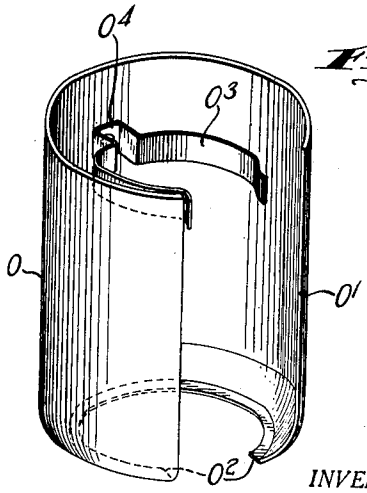



Fig. 4.




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## LAVATORY WASTE CONDUIT SYSTEM

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Application September 16, 1931, Serial No. 563,022

5 Claims. (Cl. 4—12)

My present invention relates to the construction and assembly of waste conduit systems for use in lavatories and the like and more particularly, to an escutcheon for covering and substantially concealing certain unornamental parts of the conduit systems which would otherwise be exposed.

The general object of my invention is the provision of an improved waste conduit construction, and more particularly, of an escutcheon for covering and concealing certain unornamental parts of the conduit assembly, thereby improving the appearance of the installation as well as reducing the cost of manufacture of some of the parts so concealed.

The various features of novelty which characterize my invention are pointed out with particularity in the claims annexed to and forming a part of this specification. For a better understanding of the invention, however, and the advantages possessed by it reference should be had to the accompanying drawing and descriptive matter in which I have illustrated and described preferred embodiments of the invention.

Of the drawing:

Fig. 1 is an elevation partly in section of a lavatory basin conduit system incorporating my invention;

Fig. 2 is an elevation taken at right angles to Fig. 1;

Fig. 3 is a perspective view of the escutcheon; and

Fig. 4 is a view similar to Fig. 3. of a modification.

In the drawing, A represents a portion of a lavatory basin of conventional design having in its bottom a waste outlet passage A'. The basin is also formed with the usual overflow passage $A^2$ opening at its lower end into an intermediate portion of the passage A'. A waste conduit is connected to the basin and comprises an upper section B arranged in the outlet passage and having an upper flanged end portion B' supported on a correspondingly shaped seat $A^3$ formed in the basin. The conduit section B is formed with a conical valve seat $B^2$ at its upper end and an externally threaded portion $B^3$ at its lower end. Between its ends, the section B is provided with lateral ports $B^4$ communicating with the passage A' at the lower end of the overflow passage $A^2$. The conduit section B is secured in place on the basin by a lock nut C screwed on the lower threaded end of the section to engage the underside of a washer D interposed between the nut and the lower surface of the basin. The washer D advantageously is formed by a lower metallic ring D' and an upper ring $D^2$ of resilient rubber, which when compressed against the basin provides a fluid-tight closure for the lower end of the waste passage A'.

Connected to the lower end of the conduit section B is a second or intermediate section E consisting of a T-shaped fitting E', which is formed with upper and lower aligned portions $E^2$ and $E^3$, respectively, internally threaded for connection with the section B and a lower or tail piece section F. A lateral portion $E^4$ projecting from the rear of the fitting is formed with a horizontal passage $E^5$, which is restricted adjacent its outer end by a transverse partition $E^6$. A vertically elongated slot $E^7$ is formed therein to permit tilting movements of a valve operating lever G, which extends into the interior of the fitting E'. At its outer side, the partition is shaped to form a hemispherical seat $E^8$ for a ball G' fixed on an intermediate part of the lever G. The ball is held tightly against its seat in all positions of the lever by a coiled compression spring H arranged in a cup-shaped nut J, which is screwed onto the outer end of the fitting portion $E^4$.

When the valve parts are assembled in position, the inner end of the lever G fits into an eye K' formed on the lower end of the waste valve K to raise and lower the same relative to the valve seat $B^2$. The valve K comprises a tapered disc portion $K^2$ adapted to seat on the conical seat $B^2$, and a depending stem portion $K^3$, which is provided with several lateral guide ribs $K^4$ slidably fitting in the conduit section B. The projecting portion of the lever G is provided with a series of openings $G^2$, through which the lever may be adjustably connected to a valve operating rod L, extending upwardly to a point at which it may be operated by the user.

In use, the "pop-up" waste valve illustrated and described is operated by the user raising the rod L to cause the inner end of the lever G to seat the valve K and close the passage from the bottom of the basin, and lowering the rod to unseat the valve and allow the contents of the basin to drain.

In a lavatory basin installation provided with a waste system of the character described, the portions of the drainage conduit shown are normally exposed to view beneath the basin. To improve the appearance of these parts, they have in some cases been chromium plated and finished. It has been found impracticable to give the fitting E', threaded portion $B^3$ and lock nut

C the same degree of finish as the exposed surfaces of the valve disc $K^2$ and the conduit sections B and F. Furthermore, objections have been raised to the exposure of the lock nut C and threaded portion $B^3$. The amount of the exposure of the latter will vary with the thickness of the basin portion in which the outlet passage is formed and that in turn is usually dependent on the material of which the basin is constructed. For example, only a few threads would be exposed with a solid porcelain basin, as illustrated, whereas many more would be exposed where the parts are applied to a basin of enameled iron.

The appearance of the waste conduit is substantially improved and other advantages attained by providing an escutcheon N of lightweight metal adapted to be finished in the same manner as the conduit section F for the otherwise exposed portions of the fitting E', threaded portion $B^3$ and lock nut C, and preferably adapted for use irrespective of the thickness of the basin bottom in the installation in which it is used. The escutcheon shown in Figs. 1—3 is tubular in form with its lower portion N' tapering to form a collar $N^2$ at the lower end. The upper portion $N^3$ is formed with a vertically elongated slot $N^4$ extending from the upper edge of the tube to a point adjacent the beginning of the tapered section N'. In constructing the escutcheon, the width of the slot $N^4$ is made slightly greater than the diameter of the rearwardly projecting portion of the fitting E', which is adjacent thereto when in its proper position, and the lower edge of the slot is rounded to conform to the shape of the lower surface of this fitting portion. The inner diameter of the upper end of the escutcheon is made approximately the same as the distance across corners of the lock nut C, so that the upper end of the escutcheon may be centered on the nut and preferably have a snap-on and off engagement with the corners thereof, as shown in Fig. 1. The inner diameter of the escutcheon collar $N^2$ is made slightly greater than the outside diameter of the tail piece F, permitting the collar to be slidably mounted on the same.

In assembling the waste ensemble, the escutcheon is placed on the tail piece F before the remaining conduit sections are connected thereto, and after the various connections and adjustments have been made the escutcheon is slid upwardly or adjusted telescopically on the tail piece with the slot $N^4$ registering with the lateral fitting section $E^4$ until the slotted end of the escutcheon is forced over the corners of the lock nut. The frictional contact between the lock nut corners and the inner surface of the escutcheon may be generally sufficient to hold the latter in its intended position, but to insure the proper positioning of the escutcheon I have provided a set screw $N^5$ which is threaded in a tapped hole $N^6$ in the collar $N^2$ into abutting contact with the tail piece to clamp the collar firmly thereon. When so arranged, all of the fitting E', lock nut C and threaded portion $B^3$ which is ordinarily exposed to view, will be covered by the escutcheon. The latter is advantageously finished in the same manner as the tail piece and to a casual observer will appear to constitute an enlarged section thereof. In addition to the improved appearance of the waste conduit which is attained, the use of an escutcheon of the character described permits the fitting E' to be left unfinished, which substantially reduces the cost of manufacture thereof.

In the modification illustrated in Fig. 4, the escutcheon O is formed by a member generally similar in form to the escutcheon N with the collar section $N^2$ removed. In this construction the slot O' extends throughout the length of the escutcheon and is of sufficient width to pass around the fitting E'. The escutcheon lower edge is cut away as indicated at $O^2$ sufficiently to permit it to pass around the tail piece. The escutcheon is held in position on the waste conduit by a U-shaped spring clamp $O^3$ within and secured at its intermediate portion $O^4$ to the inner side of the escutcheon at a point opposite the center line of the slot and adjacent to the upper end of the escutcheon. The escutcheon O may be installed in position on the waste conduit after the latter has been assembled, being held in position thereon by the spring clamp engaging the threaded section $B^3$. The appearance of existing installations may thus be enhanced without the necessity of disassembling the conduit parts.

While in accordance with the provisions of the statutes, I have illustrated and described the best forms of my invention now known to me, it will be apparent to those skilled in the art that changes may be made in the forms of the devices disclosed without departing from the spirit of my invention as set forth in the appended claims and that in some cases certain features of my invention may be used to advantage without a corresponding use of other features.

Having now described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. The combination with a lavatory basin having a waste opening in its bottom, of a waste conduit comprising an upper section connecting with said opening and having a lower threaded end projecting below said basin, a second conduit section connected to the lower end of said upper section, and a tubular escutcheon having an upper portion extending about and concealing said upper section and having a lower portion of reduced cross section extending about the upper portion of said second section, the latter extending downward through and beyond said escutcheon, and means by which said escutcheon is detachably secured to and supported by said conduit.

2. The combination with a lavatory basin having a waste opening in its bottom, of a waste conduit comprising an upper section connecting with said opening and having a lower threaded end projecting below said basin, a lock nut on said threaded end portion for holding said conduit in position relative to said basin, a second conduit section connected to the lower end of said upper section, and a tubular escutcheon telescopically mounted on said conduit and having its upper and lower ends engaging and centered on said lock nut and said section, respectively.

3. The combination with a lavatory basin having a waste opening in its bottom, of a waste conduit comprising an upper section connecting with said opening and having its lower end portion projecting below said basin, an intermediate section comprising a fitting connected to said upper section, and a lower section connected to said fitting, a waste valve for opening and closing said waste opening arranged to seat in said upper section, a valve operating member projecting through the rear wall of said intermediate section and operatively connected to said valve, and an escutcheon mounted on said conduit for telescopic movement thereon into and out of the position

in which it covers and conceals the projecting portion of said upper section and said intermediate section.

4. An escutcheon for a lavatory basin waste conduit comprising a tubular member having an elongated slot extending from the upper end thereof and having a contracted lower end adapted to slidingly receive said conduit and having clamping means for detachably securing said escutcheon to said conduit and holding it against longitudinal movement relative thereto.

5. The combination with a lavatory basin having a waste opening in its bottom, of a waste conduit connected with said bottom, a waste valve operating member connected to and projecting laterally away from an upper section of said conduit, and an escutcheon having an upper portion adapted to partially surround the section of said conduit from which said member projects and having a slot in one side thereof through which said operating member projects, said escutcheon comprising a lower tubular portion mounted on a section of the conduit below said member and movable longitudinally thereon into and out of the position in which said upper portion partially surrounds said upper section.

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