June 23, 1931. F. G. BROTZ 1,811,170

LAVATORY DRAIN

Original Filed Feb. 3. 1930

FIG. 1

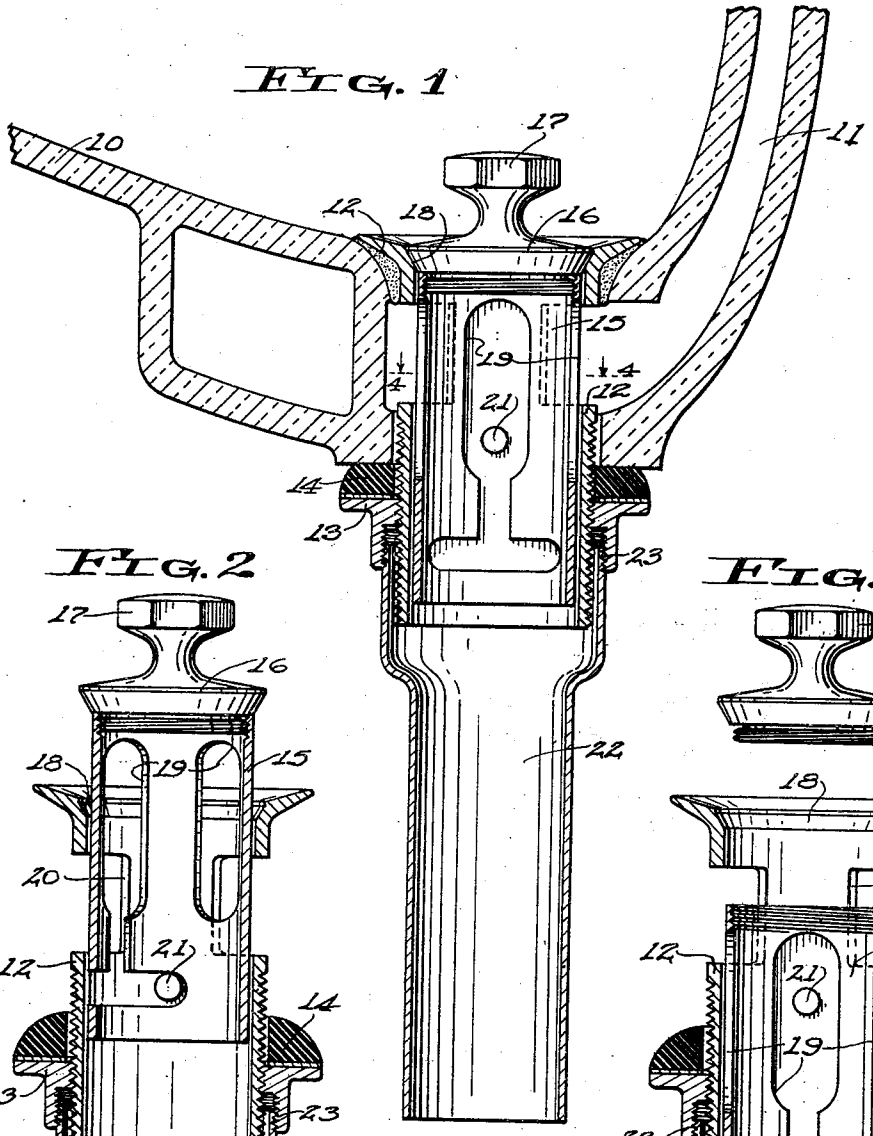


FIG. 2

FIG. 3

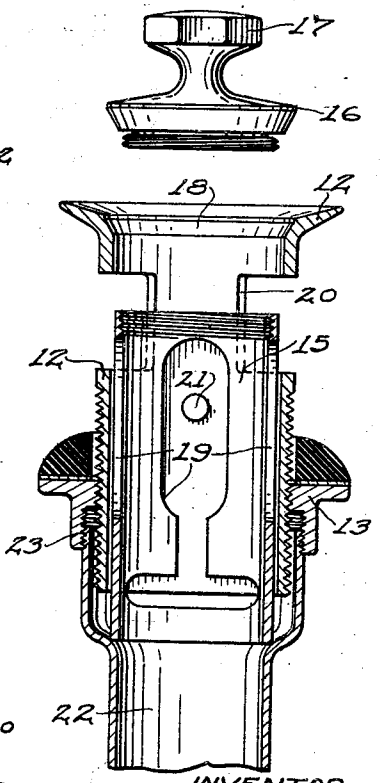
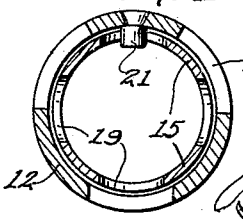


FIG. 4



WITNESSES

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LAVATORY DRAIN

Original application filed February 3, 1930, Serial No. 425,471. Divided and this application filed January 31, 1931. Serial No. 512,589.

This invention has for its object to provide a lift drain for lavatories and the like requiring only the lifting and turning to one side of the drain plug in order to open the drain and permit the contents to flow out, the return of the drain plug to its seat again closing the drain outlet.

Another object of the invention is to provide such a drain plug with a removable valve member bearing the handle by means of which the plug is turned for locking and unlocking it and for engaging and disengaging the screw threads by means of which the valve member is secured to the guide tube.

Another object of the invention is to provide such a drain with an expanded tailpiece which conceals the threaded portion of the drain connection and is threaded into the nut which clamps the drain connection to the lavatory.

This case forms a division of my application for lavatory hand lift drain, Serial No. 425,471, filed February 3, 1930.

With the above and other objects in view the invention consists in the lavatory drain as herein claimed and all equivalents.

Referring to the accompanying drawings, in which like characters of reference indicate the same parts in different views,

Fig. 1 is a sectional elevation of a lavatory drain constructed in accordance with this invention;

Fig. 2 is a similar view with the drain plug held in its open position;

Fig. 3 is a similar view with the plug member removed, and

Fig. 4 is a sectional view on the plane of line 4—4 of Fig. 1.

In these drawings, 10 indicates a lavatory or like container having an overflow passage 11 and provided with a drain spud or drain connection 12 with its funnel-shaped flanged upper end sealed into the outlet opening and clamped in place by a nut member 13 threaded thereon with a gasket 14 of rubber or other suitable material clamped between it and the bottom of the container.

Loosely contained within the drain connection 12 is a guide tube 15 having threaded within its upper end the lower portion of a plug member 16 bearing a handle or knob 17, by means of which it may be turned or raised and lowered. The plug member 16 has a conical valve surface resembling a poppet valve which closely fits a correspondingly shaped valve seat 18 in the upper end of the drain connection 12 so that when the valve is in its lower position, as in Fig. 1, it effectively seals the outlet and confines the contents within the container, although permitting the flow of water from the overflow passage 11 to the drain because of openings 19 in tube 15 registering with the overflow openings 20 in the drain connection 12. One of said openings 19 is of an inverted T shape and has projecting into it a stop pin 21 which may be riveted or otherwise fastened to the drain connection. Such stop pin prevents the removal of the tube 15 and, by engaging with the shoulders formed on either side of the contracted portion of the inverted T-shaped opening 19, it supports the waste plug in its elevated or open position, as shown in Fig. 2, thus permitting the drain of the container through the openings 19, which are then exposed.

While the plug member 16 can be unscrewed from the guide tube 15, it normally remains connected therewith and is only disconnected to permit of access to the interior to permit the cleaning of the pipes and trap through the drain opening. The tube is not removable and consequently there is not the likelihood of the plug being misplaced or stolen from hotels or other public places.

Instead of exposing the lower threaded end of the drain connection as usual an expanded tailpiece 22 is employed, which is threaded into a skirt portion 23 of the nut member 13 and makes a neat connection therewith concealing all screw threads.

The advent of chromium plating with its permanently bright polish has made the presence of exposed screw threads objectionable because of the difficulty of giving the same polished effect thereto. Consequently the present invention, which provides for the tailpiece connecting directly with the clamping nut instead of with the drain con-

nection as usual, avoids entirely the necessity for polishing the screw threads however much the drain connection may extend below the clamping nut. Also by threading the tailpiece into the flange of the clamping nut instead of upon the lower threaded end of the drain connection as is sometimes done, the attachment of the tailpiece is accomplished with very few turns and this is the same whether the drain connection extends beneath the nut the maximum distance or the minimum distance. Such distance varies greatly according to the thickness of the lavatory or sink bottom to which the drain connection is attached.

The expanded or enlarged upper end of the tailpiece permits the tailpiece to be made of the same size as the guide tube as usual and still clear the threads of the drain connection of larger diameter, providing a pocket into which the surplus projecting end of the drain connection may be received whatever the thickness of the lavatory or sink bottom may be.

What I claim as new and desire to secure by Letters Patent is:

1. A drain for lavatories or the like comprising a drain connection, a nut member threaded on the drain connection and provided with an internally threaded skirt portion, and a tailpiece having an upper end portion surrounding the threaded end of the drain connection and threaded into the skirt portion of the nut.

2. In a drain outlet for lavatories or the like, a drain connection, a nut member threaded thereon for clamping it in place, said nut member having a threaded portion, and a tubular tailpiece having its upper end surrounding the threaded end of the drain connection and threaded with the threaded portion of the nut member.

3. A drain outlet for lavatories and the like comprising a drain connection, a nut member threaded thereon for clamping it in place, an internally threaded flange on the nut member, and a tubular tailpiece having an expanded upper end surrounding the threaded end of the drain connection and forming a pocket to receive it in different positions of the nut member, said expanded upper end of the tailpiece being threaded into the skirt portion of the nut member.

In testimony whereof, I affix my signature.

FRANK G. BROTZ.