No. 816,856. PATENTED APR. 3, 1906.

M. W. GARTSHORE & J. H. FOSTER.

PLUG.

APPLICATION FILED DEC. 7, 1904.

Fig. 1.

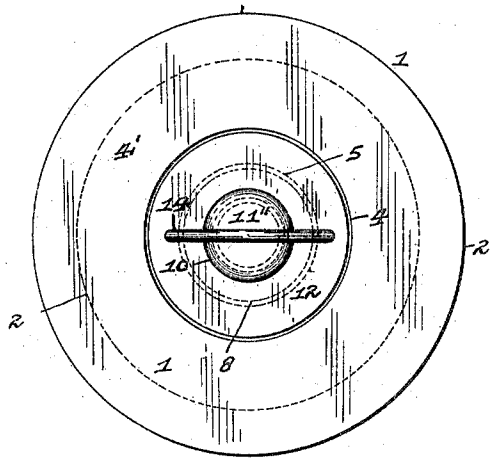


Fig. 2.

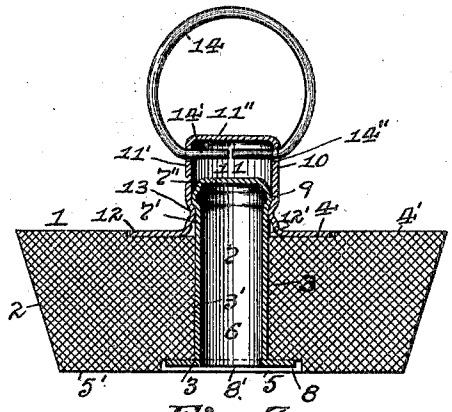
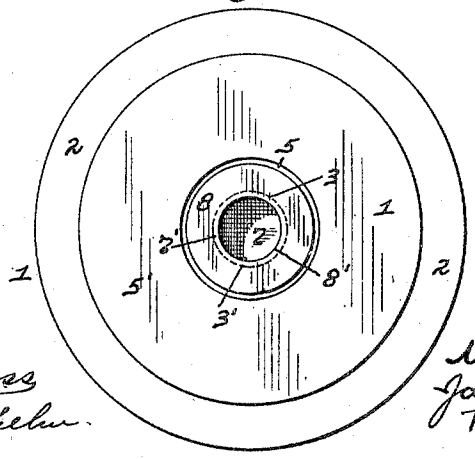


Fig. 3.



WITNESSES

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MATTHEW W. GARTSHORE AND JAMES H. FOSTER, OF CLEVELAND, OHIO, ASSIGNOR TO PARISH & BINGHAM COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF WEST VIRGINIA.

PLUG.

No. 816,856. Specification of Letters Patent. Patented April 3, 1906.

Application filed December 7, 1904. Serial No. 235,813.

To all whom it may concern:

Be it known that we, MATTHEW W. GARTSHORE and JAMES H. FOSTER, residents of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Plugs; and we do hereby declare the following to be a full, clear, and exact description thereof.

Our invention relates to plugs, and has special reference to stoppers or plugs for use in sinks, washbowls, bath-tubs, &c.

The object of our invention is to provide a plug of this character which will be simple and cheap in its construction, will be easily and quickly manufactured and assembled, and will contain few parts.

To these ends our invention consists, generally stated, in the novel arrangement, construction, and combination of parts, as hereinafter more specifically set forth and described, and particularly pointed out in the claims.

To enable others skilled in the art to manufacture and use our improved plug, we will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a top plan view of our improved plug. Fig. 2 is a sectional view of the same, and Fig. 3 is a bottom plan view thereof.

Like symbols of reference herein indicate like parts in each of the figures of the drawings.

As illustrated in said drawings, 1 represents the usual flexible rubber body or plug, which is of circular form and provided with the usual tapered side wall 2 thereon for fitting within the hole or opening (not shown) of the sink, bowl, tub, &c., while extending through the plug 1 is the usual opening 3, which terminates in the recesses 4 and 5, formed in the top 4′ and bottom 5′ of said plug, respectively.

Fitting within the plug 1 is the inner thimble 6, which is made from sheet or thin metal and is formed or stamped to shape by any suitable means to form the tubular portion 7, with the annular flange 8 extending out from and around the lower open end 8′ of the same, while an annular boss or bead 9 is formed in and extends outwardly from the wall 7′, forming such tubular portion and adjacent to the upper closed end 7″ of said tubular portion. The tubular portion 7 on the inner thimble 6 is externally of the same diameter as the opening 3 in the plug 1, through which it passes, and when in position within said plug the upper closed end 7″ on said tubular portion with the bed 9 will extend above the top 4′ of said plug, while the flange 8 will fit against the bottom 5′ of said plug and within the recess 5, formed therein. Another thimble or cap-plate 10 is adapted to fit over the closed end 7″ on the inner thimble 6, and such cap-plate is made of sheet or thin metal and is formed or stamped to shape by any suitable means to form the tubular cap portion 11, with the annular flange 12 extending out from and around the lower open end 12′ of the same for fitting within the recess 4 on the top 4′ of the plug 1, while an annular boss or bead 13 is formed and extends inwardly from the wall 11′, forming such tubular cap portion 11 and adjacent to the said lower end for engaging with the bead 9 on the inner thimble 6. The wall 11′ of said tubular cap portion 11 is perforated at 14′ on each side and below the upper end wall 11″ of the same for the reception of the ends 14′ of a ring 14, to which the usual chain (not shown) is attached for carrying the plug and its attachment to sink or bowl, &c.

The parts comprising our improved plug are assembled by inserting the upper closed end 7″ of the tubular portion 7 on the inner thimble 6 within the opening 3 in the plug 1, and then such thimble is forced or pressed to place by any suitable means and to the position shown in Fig. 2, as the bead 9 on said tubular portion 7 is of a small or sufficient size as to permit its being forced or pressed through the wall 3′, forming the opening 3 in such flexible or rubber plug 1. When the thimble 6 is in this position, the bead 9 will extend above the plug 1, and the tubular portion 7 on said thimble will fit snugly against said wall 3′, while the flange 8 on said thimble will fit against the bottom 5′ of said plug and within the recess 5 therein. The parts are now ready for the outer thimble or cap-plate 10, and such cap-plate is placed in position around the tubular portion 7 on the inner thimble 6 by setting the cap portion 11 thereon over the upper closed end 7″ of said tubular portion, and then by forcing or pressing the said cap-plate downwardly the bead 13 on said cap portion will be sprung over the bead

9 on the tubular portion 7, so as to fit under and below said bead 9, while the flange 12 on said cap-plate will fit against the top 4′ of the plug 1 and within the recess 4 therein, and thereby hold said cap-plate 10 in position.

It will be evident that the ring 14 can be placed in position within the cap portion 11 of the cap-plate 10 either before or after said cap-plate is set in place on the tubular portion 7 of the inner thimble 6, and various modifications in the construction and design of the various parts of our improved plug may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

It will thus be seen that our improved plug can have its two thimbles made of sheet metal sufficiently heavy and with sufficient resiliency to make a fastening between these parts strong enough to hold the device together and against such usage as the plug is liable to get, while such fastening and the tubular portion of the inner thimble fitting within and against the opening within the flexible plug portion will prevent any water leaking or passing through the plug from the sink, bowl, &c., or from within the cap-plate in case of the accumulation of any water therein through the perforations for the chain-ring.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. A plug for sinks, bowls, &c., comprising a flexible body having an opening through the same, an inner thimble fitting within said opening and extending above said body, a flange on said thimble for fitting against the lower face of said body, a cap-plate fitting over the extending portion of said inner thimble, a flange on said cap-plate for fitting against the upper face of said body, and spring connections between the walls of said thimble and cap-plate for holding the same together.

2. A plug for sinks, bowls, &c., comprising a flexible body having an opening through the same, an inner thimble fitting within said opening and extending above said body, a flange on said thimble for fitting against the lower face of said body, a cap-plate fitting over the extending portion of said thimble, a flange on said cap-plate for fitting against the upper face of said body, and beads on the walls of said thimble and cap-plate for engaging with each other to hold the same together and in place.

3. A plug for sinks, bowls, &c., comprising a flexible body having an opening through the same, an inner thimble fitting within said opening and extending above said body, a flange on said thimble for fitting against the lower face of said body, a cap-plate fitting over the extending portion of said thimble, a flange on said cap-plate for fitting against the upper face of said body, and beads struck out from the walls of said thimble and cap for engaging with each other and forming a spring connection to hold the same together and in place.

In testimony whereof we, the said MATTHEW W. GARTSHORE and JAMES H. FOSTER, have hereunto set our hands.

MATTHEW W. GARTSHORE.
JAMES H. FOSTER.

Witnesses:
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