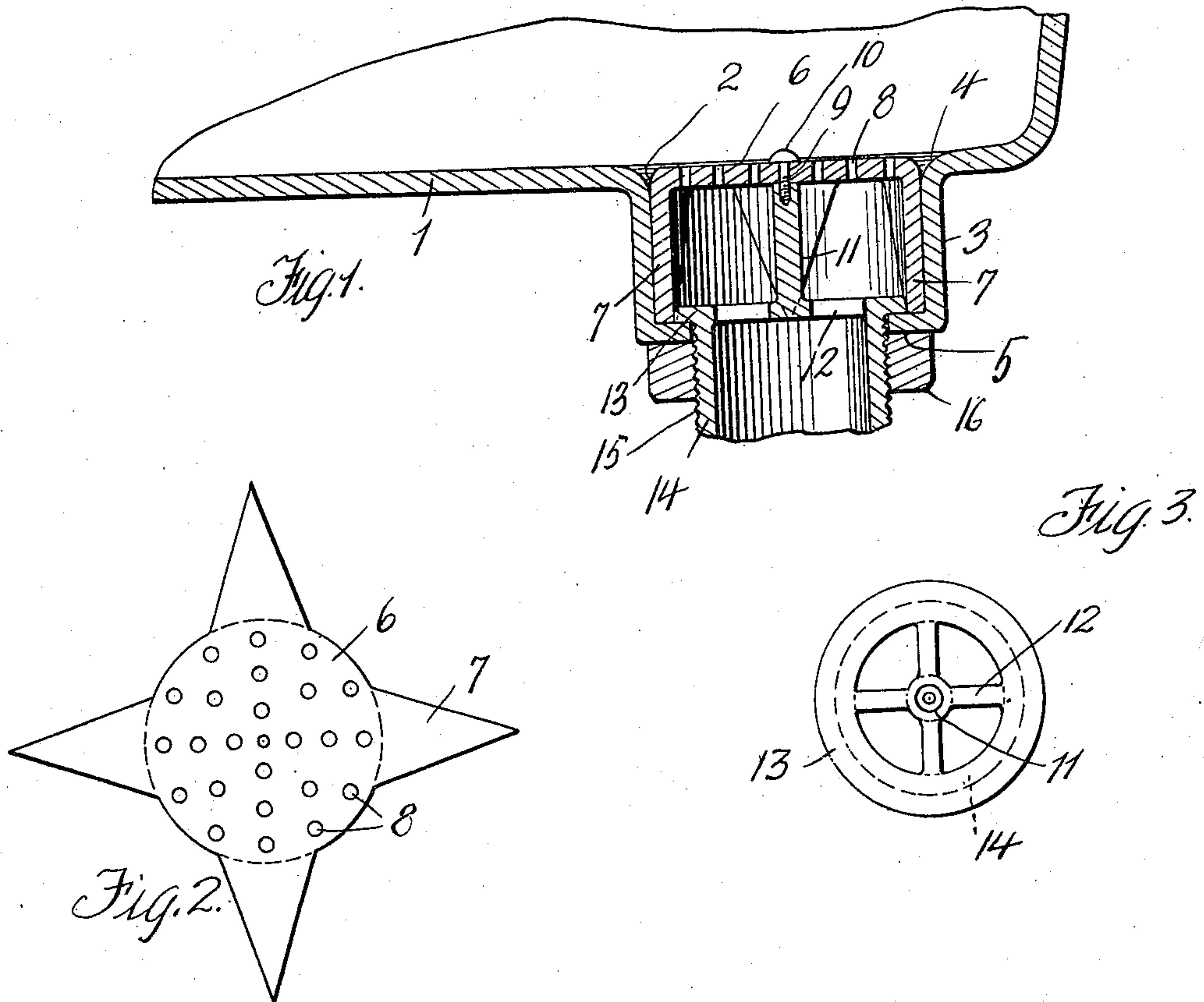


W. L. REED.
STRAINER.
APPLICATION FILED DEC. 9, 1909.

Patented Feb. 7, 1911.

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UNITED STATES PATENT OFFICE.

WILLIAM L. REED, OF PITTSBURG, PENNSYLVANIA.

STRAINER.

983,767.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed December 9, 1909. Serial No. 532,255.

To all whom it may concern:

Be it known that I, WILLIAM L. REED, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Strainers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to strainers, such as are used in connection with sinks, bath tubs, basins, bath trays, and such structures as are provided with a water outlet.

The primary object of the invention is to provide a strainer which can be advantageously used with high-grade sinks or tubs which are covered with vitreous enamel, the strainer being so mounted with respect to the outlet opening in the sink or tub, as to be entirely free from engagement with the enameled surface of the sink or tub whereby to reduce to a minimum, the danger of the enamel being cracked or crazed.

Another object of the invention is to provide a novel strainer that can be easily and quickly secured in position without injuring the edges of the sink bordering upon the strainer.

A further object of the invention is to eliminate the sharp edges of a sink that generally border upon the water outlet thereof, these edges being susceptible to breakage and when broken marring the general appearance of the sink.

A still further object of this invention is the provision of positive and reliable means for detachably mounting a strainer in the outlet opening of a sink, bath tub or other structure.

A still further object of the invention is to accomplish the above results by a strainer that is simple in construction, inexpensive to manufacture, easily placed in position and highly efficient for the purposes for which it is intended.

With these and such other objects in view as may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing forming a part of this specification, wherein there is illustrated the preferred embodiments of the invention; but it is to be un-

derstood that the structural elements thereof can be varied or changed, as to the size, shape and manner of assemblage, without departing from the scope of the appended claims.

In the drawing:—Figure 1 is a sectional view of a portion of a sink provided with my improved strainer, Fig. 2 is a plan of a blank from which the strainer is made, Fig. 3 is a plan of a coupling piece.

In the accompanying drawing the reference numeral 1 denotes a portion of a sink having a circular opening 2 and depending from said opening are the side walls of a sleeve 3, which is formed integral with or detachably connected to the sink, the juncture of the sleeve with the sink being rounded, as at 4. The lower edges of the sleeve 3 are provided with an inwardly projecting annular flange 5, the purpose of which will hereinafter appear.

My improved strainer which is mounted within the opening 2 and the sleeve 3 is cut and stamped from sheet metal to form a blank comprising a body portion 6 having a plurality of radially disposed V-shaped arms 7. These arms are adapted to be bent downwardly at right angles to the body 6 to support the body flush with the inner surface of the sink 1, the arms resting upon the flange 5, as clearly shown in Fig. 1 of the drawing. The body 6 is provided with a plurality of perforations or openings 8 and with a central opening 9 adapted to receive a screw 10. The screw 10 is adapted to screw into the upper end of a central vertical post 11 carried by a spider 12 formed in the upper flanged end 13 of a coupling piece 14. The coupling piece 14 is exteriorly screw threaded, as at 15 to receive a jam-nut 16 for holding the coupling piece 14 in engagement with the flanged end 5 of the sleeve 3.

The strainer is made of malleable metal and the arms 7 are adapted to be bent to frictionally engage the inner walls of the sleeve 3. These arms can be employed for holding the strainer in lieu of the post 11 and the screw 10, and the arms 7 can be dispensed with and the screw 10 and the post 11 entirely depended upon for holding the body 6 of the strainer.

It has been the present practice to construct sinks or bath tubs with outlet openings having the upper edges thereof surrounded by an annular shoulder or ledge

upon which a strainer plate can be mounted and secured. It is in the provision of the annular shoulder or ledge that sharp edges or corners are provided, which are not only difficult to enamel, but project to that extent as to allow the edges to be cracked and injured, particularly by the pressure of the strainer upon the same, thereby impairing the appearance of the enamel structure besides providing recesses or pockets in which filth and foreign matter can easily accumulate. It is these sharp edges and corners that my invention aims to eliminate and to use other means for supporting a strainer, the means employed being practically independent of the sink or bath tub structure.

The term "sink" has been generally used herein for the sake of brevity, it being understood that such term is used in a broad sense, descriptive of all tub-like vessels having an outlet opening.

Having now described my invention what I claim as new, is:—

1. The combination with a sink provided with an outlet opening and having a depending sleeve provided at its lower end with an inwardly-extending annular supporting-flange, of a coupling sleeve having an annular flange engaging the supporting flange of the sleeve, a spider constituting a guide and carried by said coupling, a strainer supported by the flange of the depending sleeve and wholly free from and out of contact with the sink bottom, and a post carried by the spider and connected to the strainer whereby the strainer is supported centrally and connected to the coupling.

2. The combination with a sink having its bottom provided with an outlet opening, a sleeve depending from the bottom of the sink and registering with the opening and provided at its lower end with an inwardly-extending annular supporting flange, the point of junction between said sleeve and said bottom flaring, of a coupling having an annular flange engaging the supporting flange of the sleeve, a spider carried by said coupling and constituting a guard, a strainer comprising a perforated strainer plate provided with integral depending supporting members at the periphery thereof, said members engaging said supporting flange to one side of the flange of the coupling, the points of junction between the said members and the plates being rounded in an opposite direction with respect to said flaring portion of the sleeve and bottom whereby the strainer plate will be permanently out of contact with the bottom, and a post carried by the spider and connected with the strainer plate and constituting means for supporting the central portion of the plate and further connecting the plate to the coupling.

3. The combination with a sink having its bottom provided with an outlet opening,

a sleeve integral with and depending from the bottom and communicating with said opening, said sleeve provided at its lower end with an inwardly-extending supporting flange, of a coupling having an annular flange engaging the supporting flange of the sleeve, a strainer comprising a perforated strainer plate provided with integral depending supporting members at the periphery thereof, said members engaging said supporting flange at one side of the flange of the coupling, and said strainer plate having its edge rounded away from the wall of said opening whereby the strainer plate will be permanently out of contact with the bottom of the sink.

4. The combination with a sink having its bottom provided with an outlet opening, a sleeve integral with and depending from the bottom and communicating with said opening, said sleeve provided at its lower end with an inwardly-extending supporting flange, of a coupling having an annular flange engaging the supporting flange of the sleeve, a strainer comprising a perforated strainer plate provided with integral depending supporting members at the periphery thereof, said members engaging said supporting flange at one side of the flange of the coupling, and said strainer plate having its edge rounded away from the wall of said opening whereby the strainer plate will be permanently out of contact with the bottom of the sink, and a guard carried by said coupling.

5. The combination with a sink having its bottom provided with an outlet opening, a sleeve integral with and depending from the bottom and communicating with said opening, said sleeve provided at its lower end with an inwardly-extending supporting flange, of a coupling having an annular flange engaging the supporting flange of the sleeve, a strainer comprising a perforated strainer plate provided with integral depending supporting members at the periphery thereof, said members engaging said supporting flange at one side of the flange of the coupling, and said strainer plate having its edge rounded away from the wall of said opening whereby the strainer plate will be permanently out of contact with the bottom of the sink, a spider integral with the coupling and constituting a guard, and a post projecting from the spider and connected to said plate at the center thereof whereby said plate is supported and coupled by the post with the spider.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM L. REED.

Witnesses:

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