June 3, 1924. 1,496,595

A. N. PASMAN

SINK DRAIN

Filed Aug. 18, 1923

Fig. 1

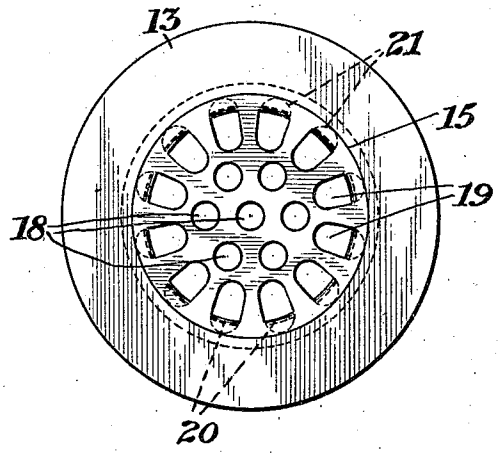


Fig. 2

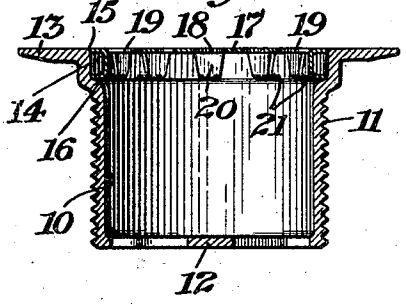


Fig. 3

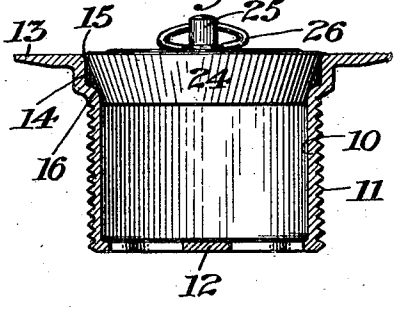


Fig. 4

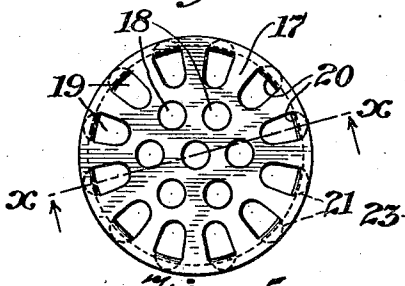


Fig. 7

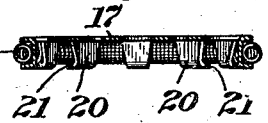
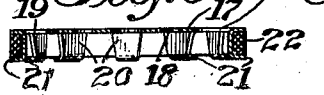


Fig. 5



Fig. 6



INVENTOR

Abram N. Pasman

BY

HIS ATTORNEYS

Patented June 3, 1924. 1,496,595

UNITED STATES PATENT OFFICE.

ABRAM N. PASMAN, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE AMERICAN PIN COMPANY, OF WATERBURY, CONNECTICUT, A CORPORATION OF CONNECTICUT.

SINK DRAIN.

Application filed August 18, 1923. Serial No. 658,029.

To all whom it may concern:

Be it known that I, ABRAM N. PASMAN, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented an Improvement in Sink Drains, of which the following is a specification.

My present invention relates to a sink drain or similar fitting adapted to connect the sink basin or other receptacle with a waste pipe. The invention furthermore relates particularly to that type of sink drain in which an interchangeable strainer and stopper are employed. I am aware that heretofore sink drains have been provided with interchangeable strainers and stoppers, the strainers being frictionally maintained in position in the opening in the drain and removable therefrom in order to insert the stopper to close the opening to retain water or other liquid in the sink basin or other receptacle. In these devices, however, so far as I am aware, the construction has been such that common seats have been provided for the strainer and the stopper with the result that as the parts become more or less worn through use neither the strainer nor the stopper fit the opening in the drain in an efficient manner. The principal object of my invention is to overcome this difficulty by so constructing the fitting that the seat provided for the strainer is independent of the seat or seats provided for the stopper so that the wear on one seat, for example the seat for the strainer will have no effect on the seat or seats for the stopper. Furthermore in carrying out the invention the strainer is so constructed that tongues are cut from the metal forming the same and shaped to provide resilient contact members for engaging the seat provided therefor in the body of the drain to frictionally maintain the strainer in position, and in addition to the yielding tongues I may also employ a yielding device carried thereby for further engagement with the strainer seat in the body of the drain, all of which will be hereinafter more particularly described.

In the drawing:

Fig. 1 is a plan view of the drain made in accordance with my invention showing the strainer member in position therein.

Fig. 2 is a transverse section of the body member with the strainer in position therein.

Fig. 3 is a similar view showing the stopper in position.

Fig. 4 is a plan of the strainer.

Fig. 5 is an elevation of the strainer.

Fig. 6 is a section on line X—X, Fig. 4, and

Fig. 7 is a section showing another form of strainer.

Referring to the drawing, it will be seen that the body member or shell of the sink drain is indicated at 10 and is provided exteriorly with screw threads 11 for engagement with a suitable fitting to connect the same to a waste pipe. Furthermore at the inner end the body member may be provided with a cross bar 12. At the opposite end as is customary the body member is provided with a flange 13 adapted to be seated in a recess provided therefor in a sink basin or other similar receptacle, the body member passing through an opening in the sink or other receptacle and being connected to the waste pipe in the customary manner. Adjacent the outer end thereof the body member is provided with a circular face 14 forming a seat for the strainer as hereinafter described. The face 14 is of appreciably larger diameter than the interior diameter of the body member and at its outer end unites with the outer face of the flange 13 in a shoulder indicated at 15, while at its inner end this face 14 unites with the inner face of the body member by a shoulder indicated at 16, the shoulders 15 and 16 as hereinafter described forming seats for a stopper which may be interchangeably employed with a strainer. It will be understood, however, that the face 14 may diverge or flare slightly toward the flange 13.

The strainer is indicated at 17. This preferably comprises a circular sheet of metal or other similar material having therein a plurality of centrally disposed and prearranged openings 18 and also a plurality of openings 19 adjacent the periphery of the strainer. The openings 19 are formed by suitably punching the plate and the metal thus cut therefrom is turned inwardly to form the prongs or tongues 20. Each of

these tongues 20 has a portion which is substantially at right angles to the body of the strainer, while the extremity thereof as indicated at 21 is turned out so that the edge is substantially coincident with the edge of the body of the strainer, that is to say the distance between the edges of the outturned extremities of oppositely disposed tongues is substantially the same as the diameter of the body of the strainer. Each of these tongues is therefore U-shaped in cross section and is consequently adapted to receive and retain, for example, a rubber ring or band 22 as indicated in Figs. 5 and 6 of the drawing, or a helically coiled wire spring 23 as indicated in Fig. 7. In either event and irrespective of which form of strainer is employed, that is whether the rubber band 22 as shown in Figs. 5 and 6 or the spring coil 23 as shown in Fig. 7 or any similar device is employed, as clearly indicated in Fig. 2, the strainer is adapted to be received in the body member of the drain so as to cause the edge thereof and the edges of the outturned resilient tongues 20 to engage with the face or seat 14 to frictionally maintain the strainer in position, and when the rubber band or wire ring are additionally employed either of these devices or a similar member additionally engages the face or seat 14 to further assist in maintaining the strainer in position.

The strainer as hereinbefore described is readily removable from the body member or shell of the drain when it is desired to retain the water or other liquid in the sink or basin or other receptacle so that for this purpose a stopper 24 may be employed. As clearly indicated in Fig. 3 the stopper 24 is made in the form of a truncated cone, the tapered edge of which bears against the seats 15 and 16 completely closing the opening to the body member without engaging the face or seat 14 with which the strainer member contacts. Also as illustrated in Fig. 3 the stopper 24 as is customary may be fitted with a centrally disposed pin 25 and ring 26 for connection to one end of a chain, the opposite end of which may be secured to a post to prevent the stopper from becoming lost.

From the foregoing description it will now be understood that the sink drain made in accordance with this invention is one in which the strainer and stopper may be interchangeably employed without the use of the one in any way interfering with the efficient use of the other.

I claim as my invention:

1. In a sink drain and the like, a body member having adjacent one end thereof a substantially cylindrical face, a strainer adapted at its periphery to bear against the outer portion of said cylindrical face, and a series of U-shaped resilient tongues cut from the body member and each bent so that only the extremity thereof is adapted to engage frictionally with the said cylindrical face to normally assist in maintaining the strainer in position in the body member and that the base thereof is appreciably spaced from the said cylindrical face when the sink drain is in position in the body member.

2. In a sink drain and the like, a body member having adjacent one end thereof a substantially cylindrical face, a strainer having a periphery of substantially the same diameter as the said cylindrical face, and a plurality of U-shaped tongues in oppositely disposed pairs each cut from the body of the strainer and having its outer end bent so that the extremities of the oppositely disposed pairs of said tongues are spaced a distance approximately equal to the diameter of the said strainer whereby the extremities of the tongues also bear against the said cylindrical face to assist in maintaining the strainer in position in the body member.

3. In a sink drain and the like, a body member having a substantially cylindrical inner face adjacent one end thereof, a plate forming a strainer having a plurality of tongues cut therefrom, each tongue being turned inwardly to channel shape, and a friction device lying within the said channel shaped tongues and adapted to engage the said cylindrical face to frictionally maintain the plate in position in the body member.

4. In a sink drain and the like, a body member having adjacent the outer end thereof a substantially cylindrical face, a plate forming a strainer and having a plurality of tongues cut therefrom adjacent the edge thereof, with each tongue turned outwardly so that the edges of the tongues and the edge of the plate are adapted to frictionally engage the said substantially cylindrical face to maintain the plate in position therein, and a resilient device carried by the said tongues for additional engagement with the said substantially cylindrical face.

Signed by me this 24th day of July 1923.

ABRAM N. PASMAN.