

April 27, 1943.

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2,317,707

STRAINER FOR PLUMBING FIXTURES

Filed April 22, 1940

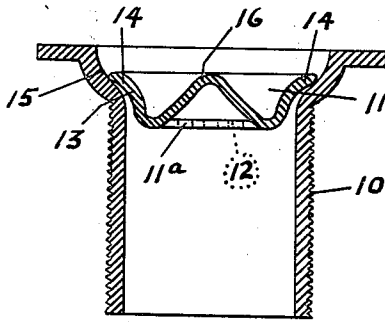


Fig. 1

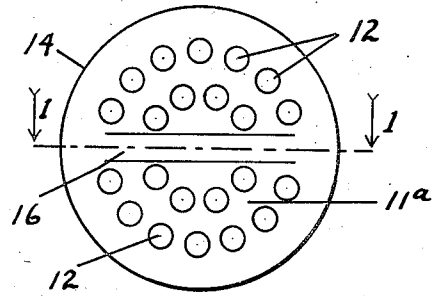


Fig. 2

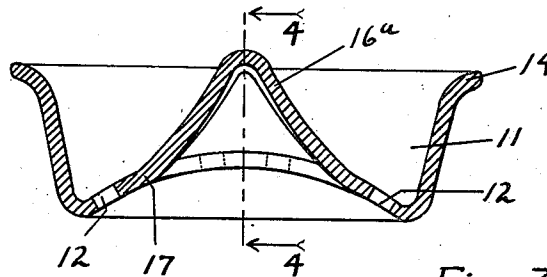


Fig. 3

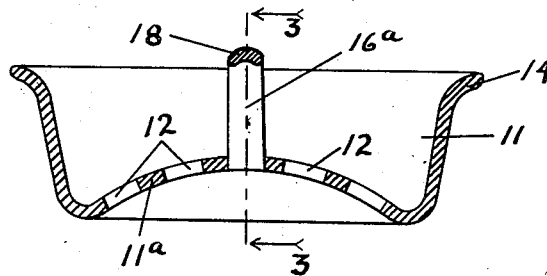


Fig. 4

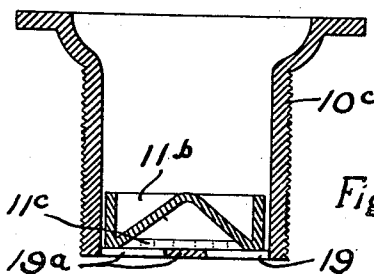


Fig. 5

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2,317,707

STRAINER FOR PLUMBING FIXTURES

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Application April 22, 1940, Serial No. 330,933

1 Claim. (Cl. 4—190)

This invention relates to a strainer which may be used in plumbing fixtures, such as sinks, bathtubs, laundry trays, and the like, to prevent the passage of solid material that might clog the drain pipes, and it has for its object the provision of a device of this character which may be readily removable for cleaning or for gaining access to the drain pipe, and which may be easily and cheaply manufactured.

In the accompanying drawing, Fig. 1 is a sectional view, taken on line 1—1 of Fig. 2, showing the invention installed in a drain fixture; Fig. 2 is a plan view of the invention removed from the fixture; Fig. 3 is a sectional view of a variation, taken on line 3—3 of Fig. 4; Fig. 4 is a sectional view taken on line 4—4 of Fig. 3, and Fig. 5 shows a modified form of the invention.

Referring more particularly to the drawing, 10 represents a drain fixture having the strainer 11 placed therein. As seen in Figs. 1 and 2, the strainer comprises a bottom portion 11^a provided with perforations 12, and an upstanding flange 13 which terminates in a peripheral lip 14, which is adapted to rest upon a shoulder 15 of the fixture 10. From the bottom portion 11^a, and integral therewith, there extends upward the bridge or grip 16. This is formed by making a pair of parallel slits through the bottom 11^a and then swaging up the intervening part into the form shown in Fig. 1. It will be seen that the strainer can be readily removed by gripping the bridge 16 between the thumb and finger; and, of course, it can be returned in the same manner. The bridge must, of course, be wide enough to possess the strength necessary to withstand the stresses to which it is subjected and still not take up more of the area of the bottom than is necessary, since the perforations 12 are outside the zone occupied by the bridge and these perforations should be as numerous and as large in diameter as practicable. As will be seen in Fig. 2, the bridge occupies the central zone and is not perforated. Preferably, its width approximates the diameter of the perforations.

In Figs. 3 and 4 a variation is shown. In this form the bottom 11^a is concave, being curved upwardly, and the bridge 16^a is subsequently swaged further upward from the curved bottom. One of the benefits of this type is that the bridge can be made higher because the initial curving

of the bottom 11^a lifts it and the unwaged bridge a part of the height, and the stretch of the metal in the bridge then continues from adjacent the point indicated at 17.

The chief advantage, however, is that in some fixtures and especially in wash bowls or lavatories, the strainer will come to rest at a lower level than in other locations, and the higher bridge may be reached with the fingers more readily.

As indicated in Fig. 4 at 18, the bridge itself may be made with an upward curve in cross-section. Such a construction gives added strength to the bridge, enabling it to withstand blows which would otherwise be likely to crush it.

Fig. 5 shows another modification. Instead of the strainer being supported by a peripheral lip 14 resting on a shoulder 15 of the fixture, the strainer 11^b has no peripheral lip but its bottom 11^c rests upon a member 19 at the bottom of the fixture 10^c. This member may be of various shapes and is fixed in position with respect to the fixture. In the drawing it is provided with arms 19^a which radiate from the center and provide open spaces between them through which the water can pass. Such a structure is common in fixtures for sinks.

I claim:

In a device of the character described, the combination with a tubular fixture, of a strainer supported within the fixture, said strainer comprising a circular bottom portion and an upstanding peripheral flange, said flange having an outwardly extending lip to rest on the fixture, said bottom portion having a pair of spaced and parallel slits in its central zone, said slits extending through the bottom but terminating at both ends short of the perimeter of the bottom, a bridge portion between said slits, said bridge being integrally connected at its ends with the bottom at the ends of the slits and being extended upwardly above the bottom to form a handle for lifting the strainer, said upturned handle extending above the plane of the upper edge of the peripheral flange and being concaved transversely and upwardly to strengthen the bridge, and the bottom of the strainer having a series of perforations in the zones outside the central zone having the slits.

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