July 20, 1926.

1,593,087

N. A. LOGAN

OUTLET STRAINER

Filed Jan. 13, 1925

Fig. 1.

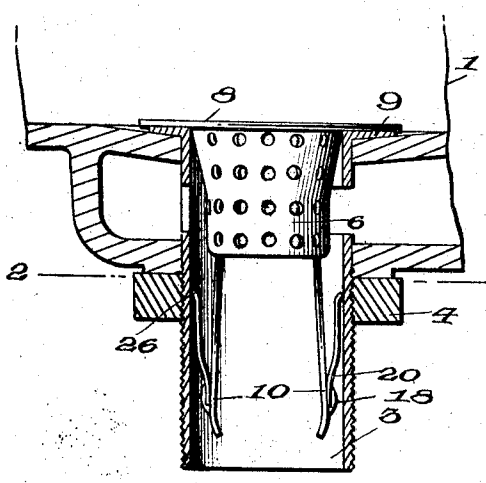


Fig. 4.

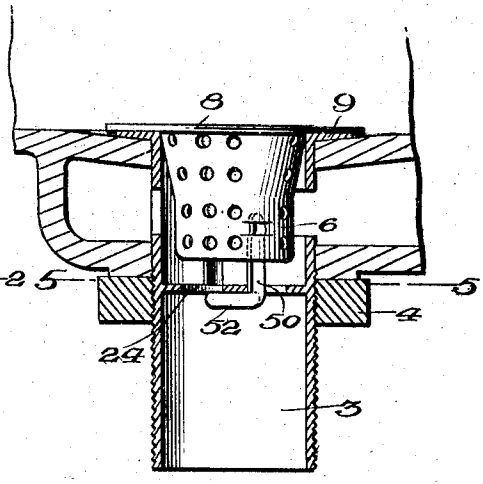


Fig. 2.

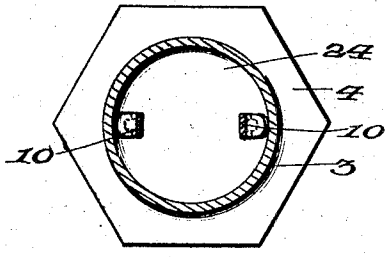


Fig. 5.

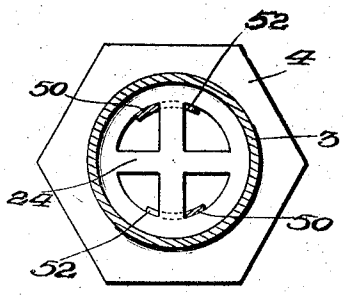
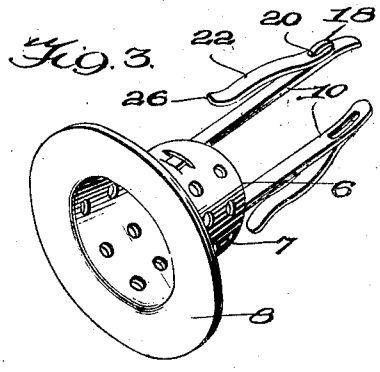


Fig. 3.



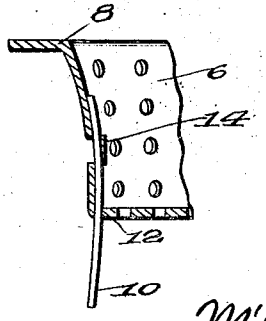


Fig. 6.

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UNITED STATES PATENT OFFICE.

NELSON A. LOGAN, OF WESTBROOK, MAINE.

OUTLET STRAINER.

Application filed January 13, 1925. Serial No. 2,195.

This invention relates to strainers especially adapted for use in connection with sinks bath tubes, wash bowls, laundry tubs, and the like, and represents an improvement over the construction illustrated and claimed in my allowed application, Ser. No. 714,715, filed May 20, 1924.

An important object of this invention is to provide a strainer which may be readily and conveniently applied to or removed from an outlet drain pipe and having simple and reliable means whereby the same may be securely and positively anchored in place.

A further aim of the invention is to provide a strainer of the class specified having simple means whereby a stopper may be conveniently applied thereto.

Also an important aim of the invention is to provide a strainer for use in sinks and the like, which is of highly simplified construction, durable in use, and cheap to manufacture.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawing forming a part of this application and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a side elevation of the improved strainer applied;

Figure 2 is a horizontal sectional view taken on line 2—2 of Figure 1;

Figure 3 is a perspective of the improved strainer detached;

Figure 4 is a fragmentary side elevation of a modified form of the invention applied;

Figure 5 is a horizontal sectional view taken on line 5—5 of Figure 4;

Figure 6 is a detail sectional view illustrating the means to hold the attaching arms in place.

In the drawing, the numeral 1 designates a basin such as a wash basin, a bath tub, a sink, or the like, and which is provided with a main water outlet within which an outlet pipe 3 is secured. Suitable means 4 may be employed to secure the outlet pipe 3 in position.

The improved strainer is formed from a single piece of metal stamped or otherwise formed into the shape of a slightly tapered cup-shaped body 6 having perforations 7 for the passage of water and fine particles. However, large particles will be confined within the body 6 so that the same can be removed in any suitable manner and prevented from clogging up the drain pipe. The upper portion of the cup-shaped body is provided with an integral annular attaching flange 8 which may rest flatly on the bottom of the basin or upon the upper surface of the annular flange 9 of the outlet pipe 3.

Figs. 1 and 3 illustrate that the cup-shaped body 6 is provided with a pair of oppositely arranged attaching arms 10, which extend a substantial distance below the body 6 and which are extended through openings 12 in the lower portion of the cup-shaped body. Fig. 6 clearly illustrates that the upper portions of the arms are arranged flatly in contact with the inner surface of the body 6 and are secured thereto by fastening straps 14, the said fastening straps being formed by providing opposite sides of the body with incisions arranged substantially parallel to each other to define partly severed portions which are pressed inwardly to cooperate with the side walls in forming alined openings to snugly receive the arms 10. The straps 14 press tightly against the inner sides of the arms 10 and thereby hold the arms in firm contact with the inner walls of the cup-shaped body 6.

In carrying out the invention the lower portions of the arms 10 may be provided with outwardly projecting lugs 18 which extend through openings 20 in the lower portions of attaching springs 22 of leaf formation. Fig. 1 plainly illustrates that the spring leaves 22 are curved outwardly away from the arms 10 toward their upper ends and are adapted to the walls of the body 3 in the manner illustrated so as to securely and positively hold the strainer in place. The upper terminal portions of the springs 22 are provided with abrupt turns as shown at 26.

Or if desired the arms which are designated in Fig. 4 by the numerals 50 may be provided at their lower ends with laterally extending attaching portions 52 curved longitudinally as shown in Fig. 5 and adapted to engage beneath the spider 24 so as to detachably anchor the basket or strainer in position.

With reference to the foregoing description it will be seen that a strainer constructed in accordance with this invention may be readily and conveniently applied to an outlet of almost any size within reasonable

limits and will provide a convenient means for collecting refuse which would be likely to clog the drain system. Also as the cup-shaped body is formed from one piece of metal and is comparatively smooth on the inside a rubber or other stopper may be inserted into the body or conveniently placed on the top of the body to prevent the escape of water.

Having thus described the invention, what is claimed is:

1. A strainer comprising a reticulated body, attaching arms secured at their upper portions to said body and extending below the body, the lower terminal portions of the arms having fastening members, and leaf springs connected to said fastening members and being extended outwardly from said arms to engage a fixed object to hold the body in place.

2. A strainer comprising a metallic tapered recticulated body having the rear end thereof provided with an annular attaching flange, the opposite sides of the body being provided with spaced incisions and the portions between the incisions being pressed inwardly to define straps, and attaching arms securely confined between said straps and the inner wall of the body, said arms being extended below the lower end of the body.

3. A strainer comprising a metallic tapered reticulated body having the rear end thereof provided with an annular attaching flange, the opposite sides of the body being provided with spaced incisions and the portions between the incisions being pressed inwardly to define straps, attaching arms securely confined between said straps and the inner wall of the body, said arms being extended below the lower end of the body, and longitudinally curved leaf springs carried by the lower portions of the arms and having object engaging means.

4. A strainer comprising a reticulated body, attaching arms secured at their upper portions to said body and extending a substantial distance below said body, the lower portions of the arms having outwardly projecting fastening lugs, and leaf springs having openings receiving said lugs, said lugs being securely engaged with said leaf springs to hold the same in position.

5. A strainer comprising a reticulated body, attaching arms secured at their upper portions to said body and extending a substantial distance below said body, the lower portions of the arms having outwardly projecting fastening lugs, and leaf springs having openings receiving said lugs, said lugs being securely engaged with said leaf springs to hold the same in position, said springs being curved longitudinally away from said arms for engagement with a drain pipe.

In testimony whereof I affix my signature.

NELSON A. LOGAN.