I. MAISANO.

STRAINER FOR WASTE PIPES, SINKS, AND THE LIKE.

APPLICATION FILED AUG. 8, 1919.

1,333,433. Patented Mar. 9, 1920.

2 SHEETS—SHEET 1.

Fig. 1.

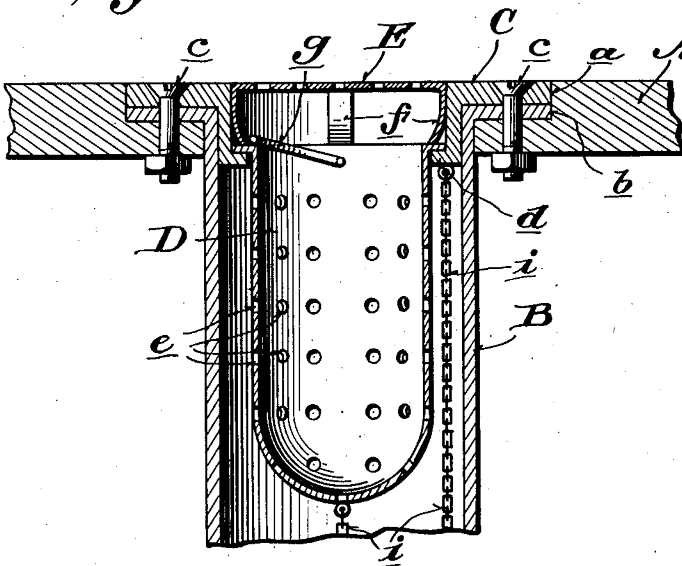
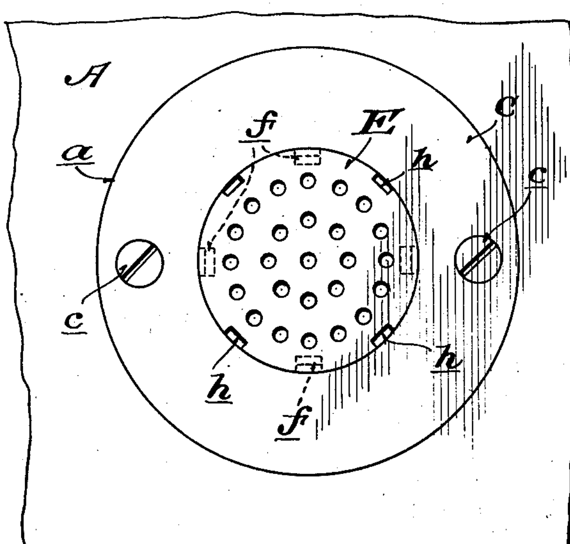


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

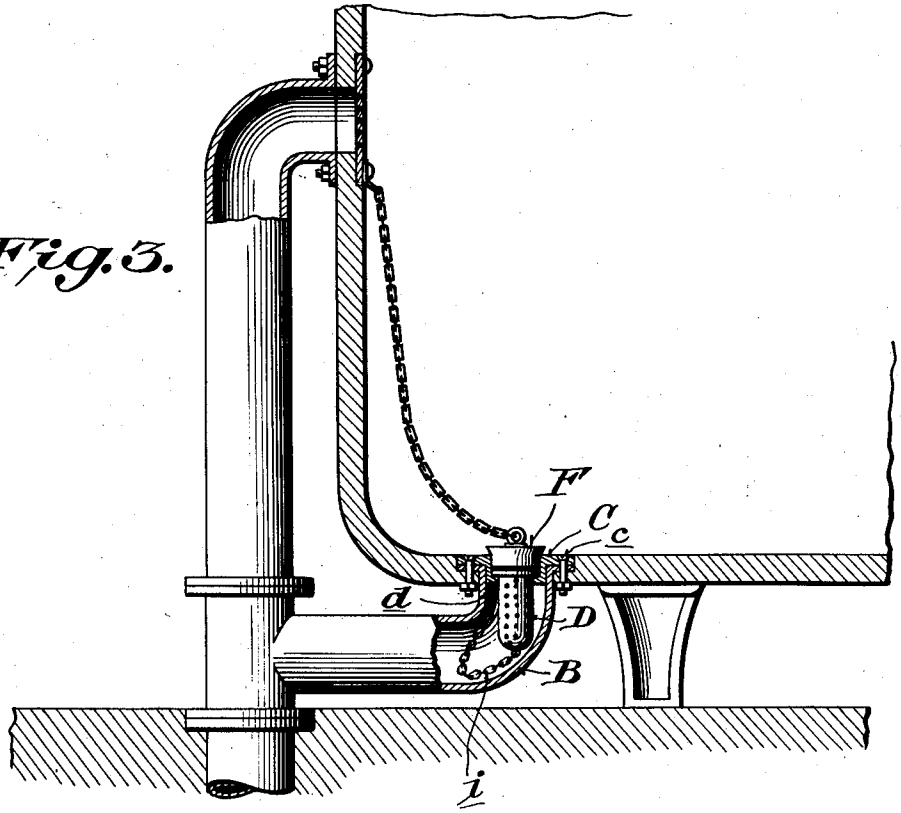
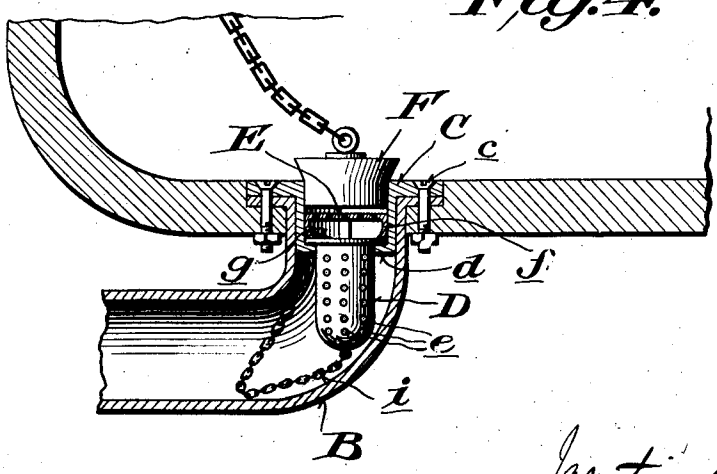


Fig. 4.



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UNITED STATES PATENT OFFICE.

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STRAINER FOR WASTE-PIPES, SINKS, AND THE LIKE.

1,333,433. Specification of Letters Patent. Patented Mar. 9, 1920.

Application filed August 8, 1919. Serial No. 316,062.

To all whom it may concern:

Be it known that I, IGNATIUS MAISANO, a citizen of the United States, residing at Wilmington, in the county of New Castle and State of Delaware, have invented new and useful Improvements in Strainers for Waste-Pipes, Sinks, and the like, of which the following is a specification.

My invention relates to a device for use with the drain or waste pipe of a sink or the like to retain solid matter, as vegetable parings, bread crumbs, pasty substances, threads, hair, etc., liable to choke the waste pipe, the invention also being applicable to bath tubs, and the construction such that the device shall be simple in design, composed of few parts, not liable to get out of order, and readily removable or separable for the purposes of emptying, cleaning or disinfecting. It also has other objects and advantages as will appear.

In the accompanying drawings,—

Figure 1 is a view in vertical section showing my invention adapted more especially to a sink in which a strainer is desirably employed with the discharge or drain pipe. Fig. 2 is a plan of Fig. 1. Figs. 3 and 4 show adaptations to a bath tub or wash bowl.

Referring more particularly to Fig. 1, A represents in part the body of a sink having a shouldered perforation *a* preferably circular. B is a drain or waste pipe provided with an upper continuous flange *b* resting upon the inturned shoulder of the sink body A. C is a cylindrical socketed member the outer flange of which is seated upon the flange *b* of the waste pipe B, the connection between the parts being effected by means of bolts *c*. The cylindrical flanged member C has an inturned annular shoulder or lip *d* upon which rests the flange of the strainer D. Thus close unions are effected between the engaging flanges of the sink A, the drain or waste pipe B and the cylindrical socketed member C, whereby there can be no collection of foreign or unsanitary matter. This strainer, which may be spun up of suitable metal, is practically of thimble shape, and has perforations *e*. The inner wall of the member C is true or unbroken, that is to say unprovided with a ledge or seat upon which extraneous matter might settle in the discharge of water from the sink. The strainer D extends a considerable distance within the drain or waste pipe B. A perforated plate or disk E rests within the circular opening of the member C flush with the surface of the sink and is provided with prongs *f* preferably having slight resiliency. These prongs for a certain distance below the plate or disk E are straight or at a right angle to the surface of said plate but at their lower ends are inwardly curved as shown. This disk E when forced into said opening is given by means of its prongs *f* a steady seat within said member, and the lower ends of these prongs, resting upon the flange of the strainer D, hold the latter in fixed position. The shape given to these prongs enables the plate or disk E to be readily inserted within the socket of the member C, and when these prongs are brought in contact with the flange of the strainer D they rest upon it in such a way as to firmly maintain it against movement which might be caused by the inrush of water from the sink. A bail or ring *g* attached to the flange of the strainer D admits of its removal as may be required. The strainer may be furnished with a chain *i* to guard against displacement or loss. Notches *h* are cut in the periphery of the perforated plate E, whereby the latter may be lifted out by the use of some convenient instrument.

Fig. 3 shows an arrangement more particularly adapted to bath tubs but also applicable to sinks, wash bowls and the like. Instead of the perforated plate or disk E a solid plug F may be substituted, it to be removed when the tub is to be emptied. I do not claim the construction shown in Fig. 3, which indicates how the ordinary plug F may be used independently of the perforated plate E.

In Fig. 4, the perforated plate or disk E is retained, and the cylindrical flanged member C has sufficient length to admit of the insertion of the plug F.

In some cases where water under high pressure is used and the device placed immediately under the faucet, the plate E may be withdrawn and the water directly discharged into the strainer D, this having a quieting effect upon the water as it passes through the numerous perforations *e* against the walls of the waste pipe B for escape from said pipe.

Inasmuch as the waste pipe B is usually placed under the faucet, the water impinging upon the perforated plate E will, on

passing through it into the strainer D, in a measure detach any soapy, greasy or other liquid from the solid matters contained therein. But if the full force of the water from the faucet be desired to cleanse the strainer D, or a liquid or a soluble disinfectant is to be used therewith, the perforated plate E may be lifted out and conveniently cleansed or disinfected. The water though entering the strainer D under full force—the plate E being removed—will not splash out of the mouth of the waste pipe B.

In either form of my invention the strainer D is held securely in place upon the annular shoulder *d* of the flanged member C by the perforated disk or plate E, the spring prongs *f* of which serve not only to hold the plate properly within its socket but to press upon the flange of the strainer D thus holding it firmly in place. The primary object of the plate E, especially when my invention is applied to a bath tub, is to prevent any article, as a small body of soap, from falling into the strainer D; but upon its removal solid matter too large to pass through the perforations of said plate will be swept by the escaping water into the strainer D for removal and disposition away from the waste pipe. Should an article of value, as a ring or other small piece of jewelry, fall into the tub it will lodge in the strainer D and readily be discovered before the emptying thereof.

Preferably the cylindrical flanged member C and the inserted plate E are flush with the inner surface of the tub, bowl, sink or the like, whereby the device shall offer no obstruction. While my invention is shown as of reduced size for the adaptations specifically mentioned, it may be given greater proportions for street drains and other uses where a considerable body of water is to be directed into a waste pipe.

It is not entirely essential to my invention that the prongs *f* of the plate E shall be elastic or resilient, as they may be non-elastic provided they subserve the purpose of maintaining the plate E in position within the cylindrical member C and rest upon the flange of the strainer D.

Having thus described my invention, I claim:—

1. In combination with a supporting body having an opening provided with an inner inturned continuous flange, a drain pipe with a continuous flange seated upon said inner inturned continuous flange, a socketed member, with a straight or unbroken interior circular wall, inserted in said body and furnished with an exterior continuous flange seated upon the flange of said drain pipe, and also with an inner inturned flange or lip, a strainer substantially of thimble shape with an upper flange resting upon said inner inturned flange or lip, and a perforated plate seated in said socketed member so as to be flush with its upper surface and provided with depending prongs each with a straight portion in close contact with the straight interior circular wall of said socketed member for a certain distance, and a lower inwardly curved part engaging the flange of said strainer so as to maintain the latter in place.

2. In combination with a supporting body having an opening provided with an inturned flange, a drain pipe having a flange adapted to seat on said inturned flange, a member insertible in said body and having an exterior flange resting upon the flange of said drain pipe and also an inner inturned flange and an upper extension or socket, a strainer substantially of thimble shape having an upper flange adapted to rest upon said inner inturned flange, a perforated plate seated within the member insertible in said body and having resilient prongs extending within said insertible member and resting upon the flange of said strainer, and a plug seating within the extension of said insertible member.

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

IGNATIUS MAISANO.

Witnesses:
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