

Aug. 4, 1931.

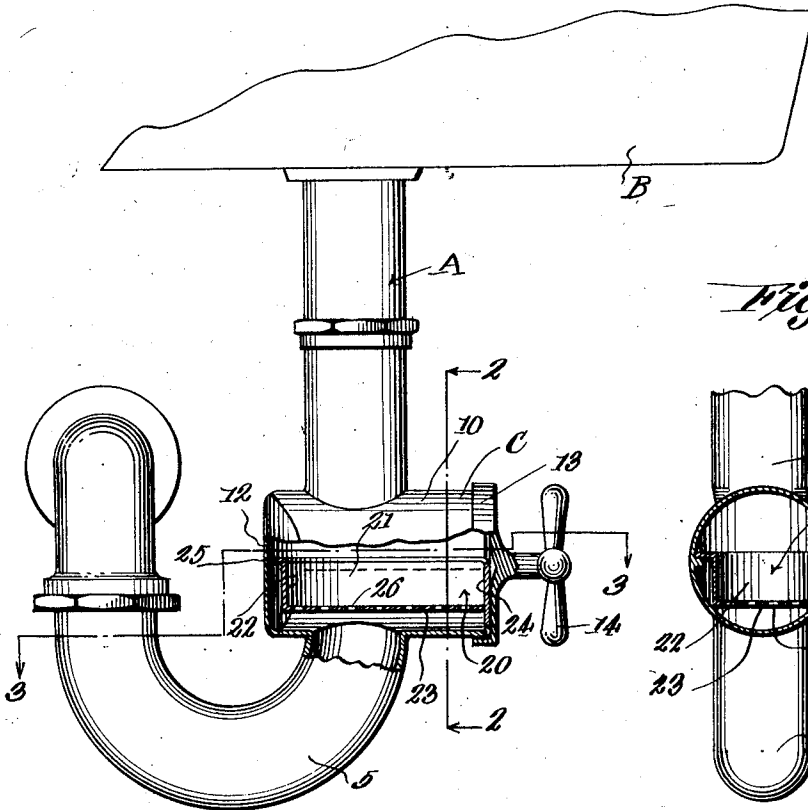
A. IZQUIERDO

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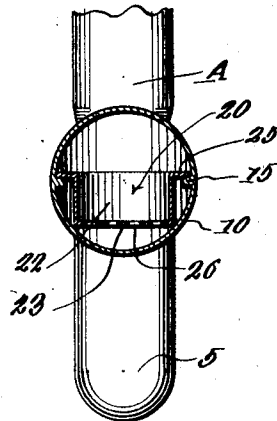
DRAIN STRAINER

Filed June 24, 1929

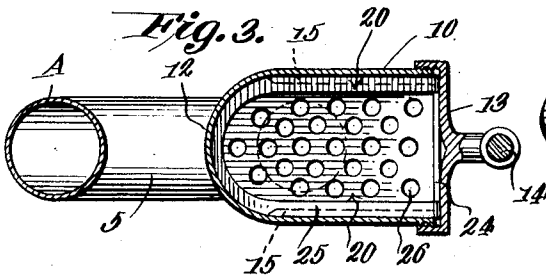
*Fig. 1.*



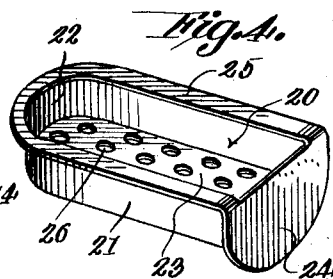
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE

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## DRAIN STRAINER

Application filed June 24, 1929. Serial No. 373,390.

This invention appertains to strainers for drain pipes and has for one of its primary objects to provide means for incorporating a removable strainer with a drain pipe for a sink or the like adjacent to or forming a part of the trap thereof so as to preclude the entrance of débris into the trap and the consequent clogging up thereof, the strainer being freely removable from the trap by the ordinary layman.

Another important object of my invention is the provision of a sliding tray incorporated with a drain pipe at the trap portion thereof, the tray being provided with a reticulated lower wall extending transversely across the pipe for permitting the free flow of water therethrough, but holding all solid matter therein with novel means for permitting the quick removal of the tray from the trap or pipe for cleaning purposes.

A further salient object of my invention is the provision of a cylindrical housing extending transversely of and forming a part of a drain pipe with a removable threaded closure for one end thereof, the casing being provided with integral guide ribs for slidably receiving a drawer or tray having flanges on the side edges thereof for engaging the guide ribs and a reticulated bottom wall extending entirely across the drain pipe for catching all foreign matter within the tray and allowing the free flow of liquid therethrough, the threaded closure plug forming means for holding the tray positively in position against accidental displacement.

A still further object of my invention is to provide an improved strainer for drain pipes of the above character, which will be durable and efficient in use, one that will be simple and easy to manufacture, and one which can be placed upon the market at a reasonable cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described, claimed, and illustrated in the accompanying drawings, in which drawings:

Figure 1 is a side elevation of a drain pipe

showing my improved device incorporated therein, parts of the device and drain pipe being broken away and in section;

Figure 2 is a vertical section taken on the line 2—2 of Figure 1 looking in the direction of the arrows showing my improved strainer tray mounted within the casing;

Figure 3 is a horizontal section taken on the line 3—3 of Figure 1 looking in the direction of the arrows, and

Figure 4 is a detail perspective view of the strainer tray.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A generally indicates a strainer pipe for a sink B including the usual U-shaped trap 5, and C my improved device incorporated with the strainer pipe A within the length thereof between the sink B and the trap 5.

My improved device C comprises a cylindrical housing or casing 10 which extends transversely across the pipe A and extending outwardly on opposite sides thereof. This casing includes an integral rear wall 12 and the side wall at its forward end is provided with external threads for receiving a threaded closure cap 13 which can be provided with a manipulating handle 14 for facilitating the placing and removing of the cap on and off the casing.

The inner surface of the side wall of the casing 10 is provided with longitudinally extending guide and supporting ribs 15 which may be formed integral with said side wall, and these ribs are located at a point equidistant of the upper and lower portions of said casing.

In conjunction with the casing I employ the removable tray 20 which can be formed of sheet metal. This tray 20 includes longitudinally extending side walls 21, an arcuate rear wall 22, a flat bottom wall 23 and a front wall 24. The front wall 24 extends below the bottom wall 23 and the side walls 21, so as to constitute a finger grip to facilitate the placing of the tray in position and this wall also extends beyond the side walls. The upper edges of the side walls 21 and the rear wall 22 are

provided with laterally extending flanges 25 and the flanges of the side walls are adapted to rest on the guide and supporting ribs 15 formed on the casing 10. The flange formed on the rear wall 22 is adapted to abut against the integral rear wall 12 of the casing so as to preclude the passing of solid matter between the same and the rear wall of the casing.

10 The front end of the tray when in position within the casing extends slightly beyond the front edge of the casing and is adapted to be engaged by the screw cap 13 which cap urges the same into the casing to bring the flange on the rear wall thereof into intimate contact with the rear wall 12 of the casing, thereby positively locking the tray in position against accidental turning movement.

15 The lower wall of the tray can be formed of reticulated material and in the present instance I have shown the bottom wall thereof provided with a plurality of drain openings 26.

20 When the tray is in position in the casing as shown in Figures 1 and 2 of the drawings, it can be seen that the same completely extends across the drain pipe and thus all water draining from the sink will of necessity pass through the tray and into the trap 5. The apertures 26 will permit the free passage of water through the tray, but will positively hold all foreign matter back from the trap and in the tray. By this construction the clogging up of the trap is prevented and all debris can be easily and quickly removed from the drain pipe.

30 When it is desired to remove the strainer tray for cleaning purposes, it is merely necessary to grasp the handle 14 and unthread the cap 13 from the side wall of the casing, after which the fingers grasp the front wall 24 of the tray and the tray is removed. The debris within the tray can now be dumped out of the same and the tray cleaned and then replaced in position in the pipe. After the tray has been inserted, the cap can again be threaded into position, which as stated holds the tray in place.

35 From the foregoing description, it can be seen that I have provided an effective and simple device for preventing the clogging up of a drain pipe and for permitting the effective and easy cleaning thereof.

40 Changes in details may be made without departing from the spirit or the scope of this invention, but:

45 What I claim as new is:

50 In a drain including a pipe having a trap and a casing extending diametrically through the pipe above the trap and projecting beyond the opposite sides thereof, having a cylindrical side wall and a rear wall, longitudinal ribs on the inner face of the side wall above the trap, a removable cover threaded on the front of the casing; a removable tray slidably mounted in the casing including spaced side walls, front and rear walls and a perforated bottom wall, the front wall extending beyond the bottom and side walls, laterally extending flanges formed on the upper edges of the side and rear walls and forming a continuation of the front wall, said flanges resting upon the ribs of the side wall of the casing, and engaging the inner face of the wall and rear wall of the casing, the front wall engaging the inner face of the removable cover, the side edges of the bottom wall engaging the inner faces of the side wall of the casing at a point below said ribs, as and for the purpose specified.

55 In testimony whereof I affix my signature.  
ANGEL IZQUIERDO.

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