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E. W. AUSTIN

2,792,574

STRAINER

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FIG. 1.

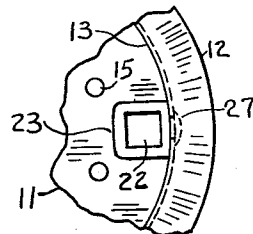


FIG. 5.

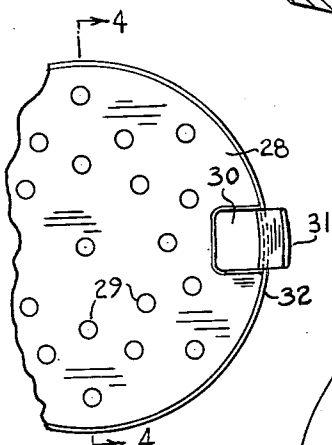
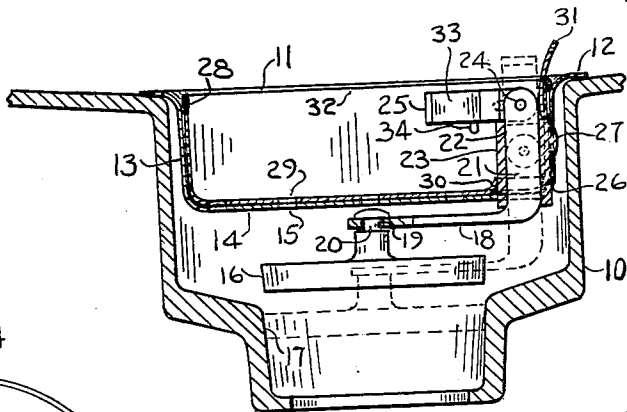


FIG. 3.

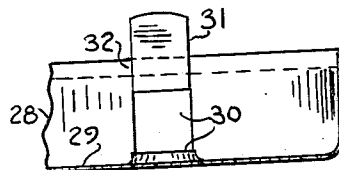


FIG. 4.

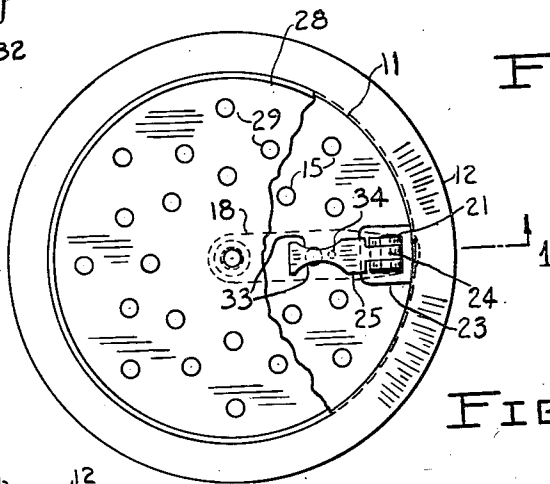


FIG. 2.

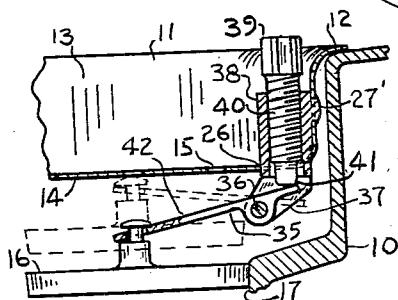


FIG. 6.

INVENTOR.

Ellsworth W. Austin

1

2,792,574

STRAINER

Ellsworth W. Austin, Des Moines, Iowa, assignor to
Donald C. Austin, Cedar Rapids, Iowa

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6 Claims. (Cl. 4—287)

My invention relates to strainers particularly adapted for use in sinks, and has for a specific object the provision of expendable cups for collecting refuse. Another object is to provide unobstructed space for said refuse when deposited in the cup, and to allow free drainage of the water.

Other objects and advantages thereof will be apparent as the description proceeds and the elements of novelty are pointed out in the appended claims, reference being had to the accompanying drawing, in which:

Fig. 1 is a vertical section (partly in elevation) of one form of my present invention, taken on the line 1—1 of Fig. 2, and arranged within a sink waste pipe.

Fig. 2 is a top plan view of the device, a portion broken away for clarity, and the sink waste pipe omitted.

Fig. 3 is a broken top plan view of an expendable cup.

Fig. 4 is a partial cross-section of the same, the plane of which is indicated by line 4—4 of Fig. 3.

Fig. 5 is a fragmental top plan view of the basket shown in Fig. 1.

Fig. 6 is a partial vertical section of a modified form of the device, the expendable cup being omitted.

Referring to the drawing, 10 denotes a conventional sink waste pipe. Neatly fitting within the upper opening of said waste pipe is strainer basket 11 having an annular flange 12 extending, for support, over the lip of said opening. 13 denotes the wall portion of the basket 11, and 14 its bottom which is clear of center lifting posts usually found in conventional sink strainers, thus to better accommodate an appreciable quantity of refuse when washed therein by the flow of waste-water through apertures 15; a stopper 16 is arranged to seat snugly within the tapered orifice 17 when engaged, and controllable in its positions to be closed or opened for the flow of waste-water.

In the form of the invention shown in Figs. 1, 2, and 5, I employ an offset lifting arm 18 having eye 19 for receiving stopper stem 20 which is suitably reduced in diameter and has its end riveted over at assembly for loosely retaining the same; the square shank 21 being slidable within aperture 22 extending the full vertical length of protruding element 23; and coactive with shank 21 and hinged thereto with pin 24 as a pivot, I provide extension 25 which folds into the horizontal position shown in full lines in Figs. 1 and 2, to retain stopper 16 in its raised position, and takes the position shown in dotted lines of Fig. 1 for allowing stopper 16 to be seated. In practice, the protruding element 23 serves a multiple purpose, i. e., as a means for mounting a stopper lifting device such as the form described or the form of the modified arrangement to be described later, and also being firmly secured to the inside edge of the basket 11, with a tongue piercing the basket bottom 14 at 26, and a rivet lug 27 piercing wall portion 13, said protruding element provides a means for accurately locating the expendable cup 28 within the basket for efficient operation thereof. When expendable cup 28 is in place, its apertures 29 should align or register correctly with apertures 15 of the basket, this accomplishment being made by the protruding ele-

2

ment 23 acting as a key against relative rotation. The expendable cups are usually constructed of stiff waterproof paper, and conform closely to the inside of the basket, and a cutout 30 is made to closely fit about the protruding element 23, a portion of the material thus cut is folded upward to form an ear or finger grip 31 for facilitating the removing and disposing of the cup with its collected refuse; the protruding element 23 having its uppermost portions appreciably below the flange 12 of the basket, allows a continuous upper portion and reinforced lip 32 for said cup. In service, it is desirable to facilitate the operation of the stopper, and to easily remove the entire device from the sink, and in view of such, extension 25 is shaped with indented sides for finger grips 33; pin 34 projects from the inside flat surface of extension 25 to prevent the extension from passing entirely through aperture 22 after the device has been assembled.

In the modification shown in Fig. 6, the stopper 16 is controlled by an arrangement including rocker 35 having its fulcrum at pin 36 which is supported between a pair of lugs 37 protruding downward from the lower end of element 38 which replaces the previously described protruding element 23, and is secured in place within the basket 11 in the same manner, and functions to accurately locate the expendable cup 28 as in the form heretofore described. Rivet lug 27' is furnished to secure element 38 to the basket wall portion 13; thumb-screw 39 threaded at 40 to engage internal threads of said element 38 provides a means for applying downward pressure on the short arm of said rocker 35, as at 41, thus to tilt the rocker and raise the stopper 16 which is loosely retained for its proper operation at the end of the long arm 42.

Specific embodiments of the present invention have been herein described in detail yet other modifications and changes may be made by those skilled in the art, without departure from the spirit of the description and claims. For instance the protruding element within the basket, may be varied in form and contour.

I claim:

1. A strainer adapted to fit within the opening of a sink waste pipe, said strainer comprising a basket having a wall portion and a bottom with draining apertures therein, an expendable strainer cup with like apertures therein and disposed to fit snugly within said basket, a protruding element within said basket and attached to said wall portion to become a substantial part therewith, that when the cup is in use said protruding element serves to key said cup against relative rotation with said basket to register said cup apertures with said bottom apertures, a stopper for said waste pipe, a stopper actuating means disposed within said protruding element.

2. A strainer adapted to fit within the opening of a sink waste pipe, said strainer comprising a basket having a wall portion and a bottom with a plurality of outlets therein, an expendable strainer cup with like outlets therein and disposed within said basket, an element protruding from the inside of said wall and adapted to resist relative rotation of said cup and said basket to align said cup outlets and said bottom outlets, a stopper for said waste pipe, and a stopper actuating means disposed within said element.

3. A strainer basket adapted to fit within the opening of a sink waste pipe, a protruding element adjacent the inside edge of said basket and adapted to receive a stopper lifting means, a stopper for said waste pipe concentrically disposed in respect to said basket, a stopper lifting means within said protruding element and disposed to span the appreciable horizontal distance to said stopper and attached thereto to lift the same.

3

4. A strainer basket having a cylindrical wall portion disposed within the opening of a sink waste pipe, an element interrupting the inside cylindrical contour of said wall, an expendable cup formed to fit snugly within said basket and aligned therewith by said element for collecting refuse and allowing the free passage of waste water, a stopper for said sink waste pipe, a stopper actuating means disposed within said element for lifting the stopper and retaining the same in its lifted position.

5. A strainer basket and a stopper to fit within a sink waste pipe, a protruding element adjacent the inside edge of said basket, a stopper actuating means disposed

4

within said element comprising a slidable, non-rotating shank and a stopper connecting arm for actuating said stopper.

6. A strainer basket and a stopper to fit within a sink waste pipe, a protruding element adjacent the inside edge of said basket, a stopper actuating means disposed within said element comprising a thumbscrew threaded therein to actuate a rocker connected to said stopper to lift the same.

No references cited.