

Sept. 5, 1939.

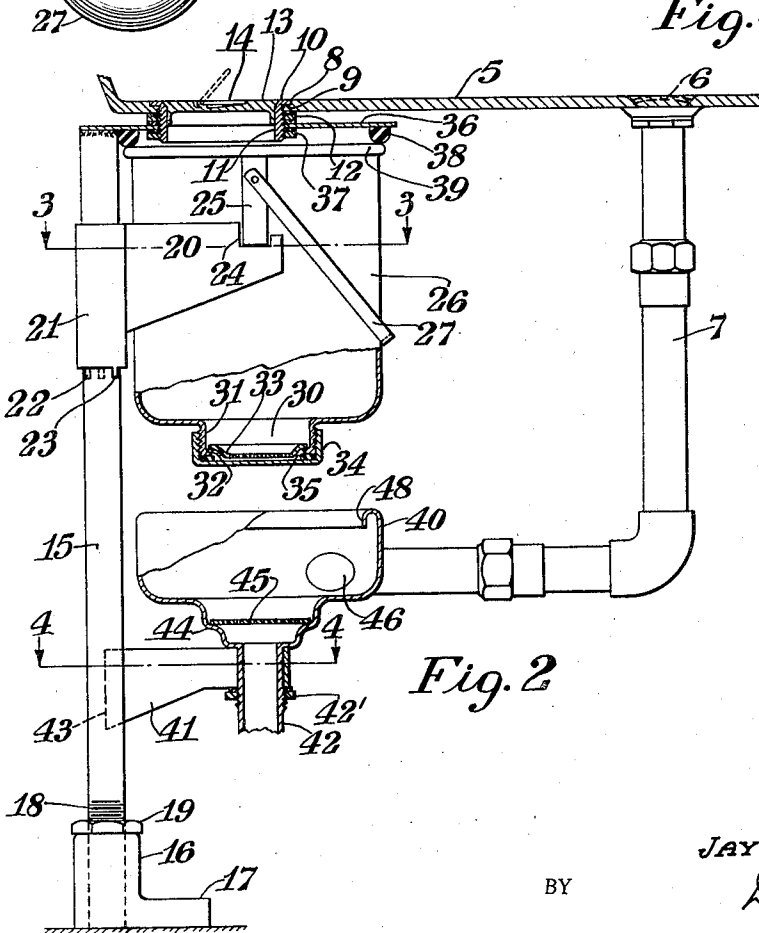
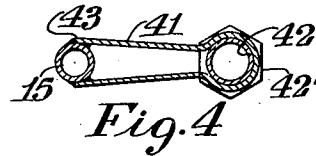
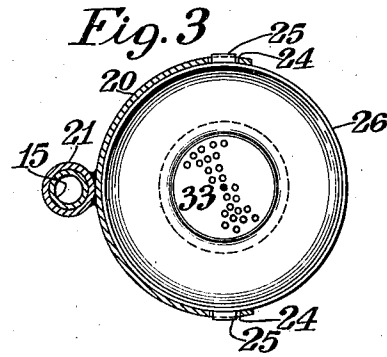
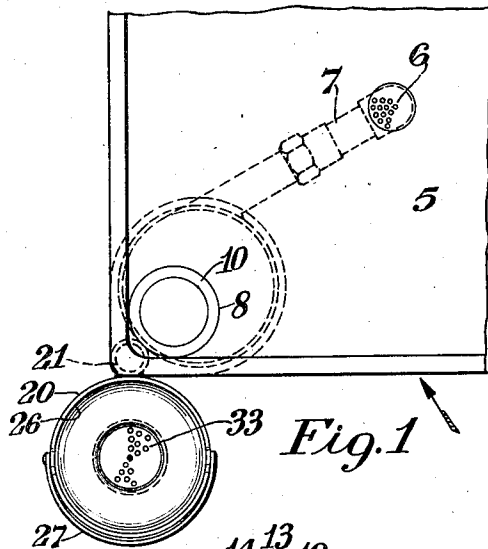
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2,172,188

COMBINED SINK AND GARBAGE CAN

Filed Aug. 14, 1937

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

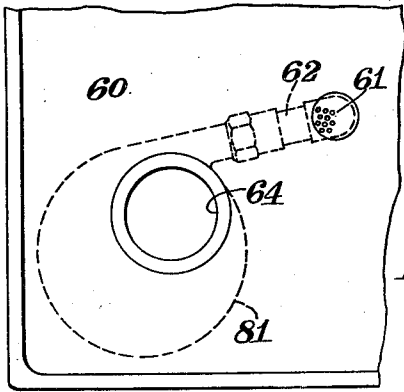


Fig. 5

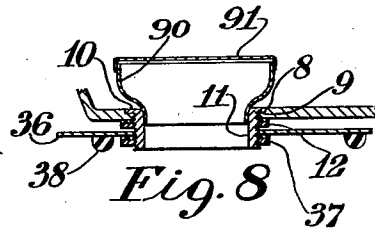


Fig. 8

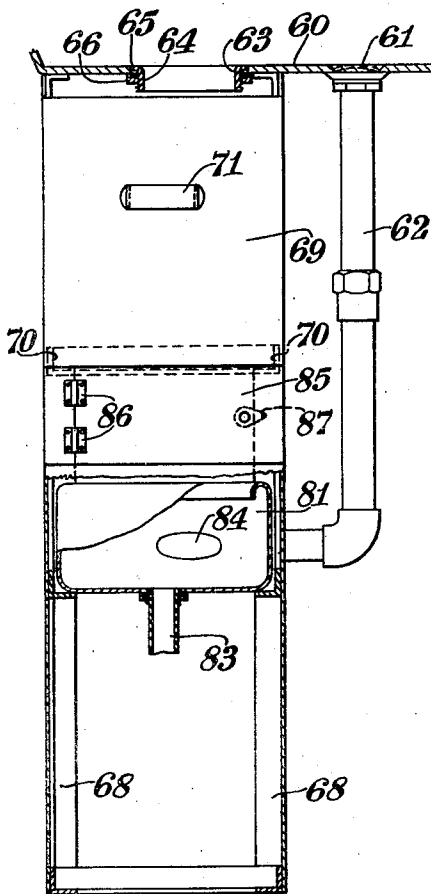


Fig. 6

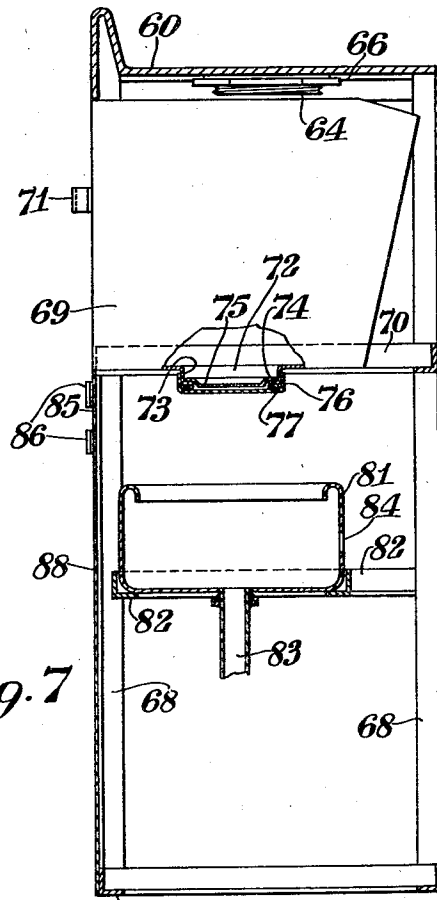


Fig. 7

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COMBINED SINK AND GARBAGE CAN

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9 Claims. (Cl. 4—187)

This invention relates to a novel apparatus adapted to be used in combination with a sink for the convenient disposal of garbage or like refuse.

5 An object of the invention is to provide means whereby garbage or the like may be discharged through an opening in the bottom of a sink or if desired through an opening in the sink drain-board, to a receptacle disposed beneath the sink or drain-board.

10 A further object is to provide a novel garbage receptacle in which the larger particles of refuse will serve as a filter to prevent smaller particles of refuse such as coffee grounds from passing through the opening in the bottom of the receptacle.

A still further object of the invention is to provide a novel catch basin into which the liquid portion of the garbage can drain.

20 A still further object of the invention is to utilize the water normally draining through the sink drain to flush or cleanse the above-mentioned catch basin.

A still further object of the invention is to provide an adjustable support for the garbage receptacle and the catch basin whereby the receptacle and basin are adapted to be used with sinks disposed at different heights from the floor level.

30 A still further object of the invention is to mount a garbage receptacle detachably and movably on a support whereby it may be swung from its garbage receiving position beneath the sink to a position away from the sink where it may be readily removed from its support to be emptied or cleansed.

35 A still further object of the invention is to provide a modified type of garbage receptacle in the form of a drawer which may be pulled from beneath the sink to be emptied or cleansed.

40 These and other objects will be apparent from the description to follow and by reference to the drawings.

In the drawings:

45 Fig. 1 is a plan view of a portion of a sink with the garbage receptacle swung away from the sink and illustrating by dotted lines the position of the garbage receptacle beneath the sink,

50 Fig. 2 is a view taken in the direction of the arrow shown in Fig. 1 certain of the parts being shown in section for the sake of clearness,

Fig. 3 is a section taken on line 3—3 of Fig. 2 illustrating the garbage receptacle and its supporting bracket,

55 Fig. 4 is a section taken on line 4—4 of Fig. 2,

Fig. 5 is a plan view of a sink provided with a modified type of garbage disposal means,

Fig. 6 is a front view of the apparatus shown in Fig. 5, certain of the parts being broken away to show the details more clearly,

Fig. 7 is a side view of Fig. 6, portions being shown in section for the sake of clearness,

Fig. 8 is a view of the sink shown in Fig. 2 with the cap replaced by a funnel.

Referring to Figs. 1 to 4 inclusive, there is illustrated a sink 5, provided with the usual drain opening 6 and drain pipe 7. An opening 8, which may be conveniently placed in a corner of the sink, is provided with an undercut portion 9 to receive the flange 10 of the externally threaded sleeve 11. The sleeve 11 is clamped to the sink by means of the flange 10 and the nut 12 threaded on the sleeve. As shown in the drawings, a suitable sealing gasket may be disposed between the nut 12 and the lower surface of the sink bottom.

A tight-fitting but removable cap 13, provided with a suitable handle 14, is seated in the sleeve 11, with its upper surface preferably flush with the sink bottom and the flange 10. It will be understood that during normal use of the sink, the cap 13 seals the sleeve 11. However, when it is desired to place garbage in the receptacle supported under the sleeve 11, the cap 13 will be removed.

A post 15 has its lower end supported in the upstanding boss 16 of the base 17, which base may rest or be secured to the floor. The lower end of the post is threaded as indicated at 18 and carries the nut 19. The post may be raised or lowered with relation to the base 17 to accommodate sinks of varying heights, by turning the nut. The upper end of the post is welded or otherwise suitably secured to a stationary cover 36 to be later described in detail. A substantially semi-circular bracket 20 is pivotally mounted on the post adjacent the upper end thereof by means of the sleeve 21 to which it is welded or otherwise suitably secured. The stops 22 carried by the post 15 support the sleeve 21 for rotation on the post and may also cooperate with the depending lug 23 secured to the sleeve 21 for limiting the movement of the garbage receptacle to the positions shown in full and dotted lines in Fig. 1. The outer ends of the semi-circular bracket 20 are notched as shown at 24 for the reception of the strips 25 secured at diametrically opposite points on the garbage receptacle or pail 26. The garbage pail 26 is provided with a bail 27. With the bracket 20 swung

into the position shown in Fig. 2 and by dotted lines in Fig. 1 the garbage pail is disposed beneath the sleeve 11 whereby garbage placed in the sleeve will fall into the garbage pail. However, the garbage pail may be swung into the position shown in full lines in Fig. 1 in which position it may be lifted from the bracket 20 and emptied.

The bottom of the garbage pail 26 has an opening 30 therein defined by the depending flange 31. An inwardly projecting shoulder 32 is formed on the lower end of the flange and supports the perforated plate or strainer 33. The depending flange 31 is externally threaded to receive the tight-fitting screw cap 34 provided with an annular sealing gasket 35 which closes the opening in the pail when it is desired to remove the pail from its support 20 to empty the same. It will be understood that the cap 34 prevents any liquid or small particles of garbage from dripping on to the floor, when the garbage pail is carried by means of the bail.

It may be well to point out at this time, that garbage overlying the perforated plate 33 serves as a filter and will prevent particles of refuse which may be smaller than the perforation in the plate 33, such as coffee grounds, from draining out of the garbage pail, in objectionable quantities.

In order to prevent odors from escaping from the garbage receptacle, a stationary pail cover 36 having an aperture therein of a size to snugly receive the sleeve 11, is clamped to the sleeve by means of the nut 37 threaded on sleeve 11, the cover being clamped between nut 12 and nut 37. As shown, suitable sealing gaskets may be disposed on each side of the cover plate between the plate and the nuts 12 and 37. The cover plate may be welded or otherwise suitably secured to the top or upper end of the post 15. A sealing strip 38 such as rubber is secured to the bottom face of the cover 36 and snugly engages the beaded rim 39 of the garbage pail when the same is disposed beneath the sink in a position to receive garbage.

In order to catch liquid draining from the garbage contained in the pail 26, a catch basin 40 is supported on the bracket 41 immediately below the sleeve 11 and the opening 30 in the garbage pail. The bracket 41 embraces the depending drain pipe 42 of the catch basin and is clamped thereto by the nut 42'. The other end of the bracket is welded or otherwise suitably secured to the upstanding post 15 as indicated at 43. The lower portion of the catch basin is formed with a shoulder 44 for supporting the strainer or perforated plate 45. The strainer 45 prevents garbage, which may accidentally fall in the catch basin, from being discharged into the pipe 42. It will be understood that the pipe 42 will discharge into a sewer or the like, a trap (not shown) being provided to prevent sewer gas from rising in the pipe 42.

In order to flush or clean out the catch basin 40, the drain pipe 7 discharges at 46, into the side of catch basin 40 so that the water draining from the sink will swirl about the basin. An inwardly turned flange 48 is formed on the rim of the basin, to prevent water discharging into the basin from splashing.

The above described apparatus will be used as follows. When it is desired to dispose of garbage, the cover 13 is removed and the garbage emptied into the pail 26 disposed below the sleeve 11. The liquid contents of the garbage will drain

through the strainer 33 into the catch basin 40, it being understood that the cap 34 is removed when the pail is in the position shown in Fig. 2. Any water in the sink will drain into the pipe 7 and be discharged into the catch basin 40 and flush out any small particles of garbage, dirt or stained water therein. When it is desired to empty the garbage contained in the pail 26 the screw cap 34 is threaded on to the depending flange 31 to prevent water from dripping from the pail. The pail and its supporting bracket may then be swung into the position shown in full lines in Fig. 1 where the pail may be readily lifted by means of the bail 27 from the supporting bracket 20. After the garbage has been emptied and the pail cleaned, it is replaced on the bracket 20 and moved into the position shown in dotted lines in Fig. 1 and the cap 34 removed.

In Figs. 5, 6 and 7 there is illustrated a device embodying the same principles as the previously described apparatus, but of modified construction, which may be more suitable, in certain types of kitchens. As in the device illustrated in Figs. 1 to 4, a conventional sink 60 having a drain opening 61 and drain pipe 62 is provided with an enlarged hole 63 in which is fitted the short externally-threaded sleeve 64. The margin of the sink at the opening 63 is undercut to receive the flange 65 of the sleeve. A nut 66 threaded on the sleeve 64 cooperates with the flange 65 to clamp the sleeve to the sink. An annular sealing gasket may be placed between the nut 66 and the bottom surface of the sink. The sleeve may be closed by means of a cap similar to the cap 13 shown in Fig. 2 when the garbage receptacle is not being used.

A support comprising a base 67, which may be conveniently formed of angle iron, has bolted or otherwise adjustably secured thereto a plurality of upstanding legs 68. The upstanding legs 68 extend to the bottom of the sink and serve as a support for the garbage receptacle and the catch basin. A garbage receptacle 69 having the shape of a deep drawer is supported by means of a pair of opposed guides 70 secured to the legs 68. These guides 70 may comprise angle iron welded or riveted to the legs 68. The receptacle 69 is provided with a handle 71 to facilitate withdrawal of the receptacle 69 from beneath the sink so that the garbage contained therein may be removed. The bottom of the receptacle 69 is provided with an opening 72 defined by a depending flange 73 and an intumed shoulder 74 for supporting the perforated plate or strainer 75. The depending flange is externally threaded to receive the tight-fitting screw cap 76 provided with the annular sealing gasket 77. This construction is identical with that in the preferred form and shown in detail in Fig. 2.

It will be understood that when the receptacle 69 is in the garbage receiving position shown in Fig. 7, the cap 76 will be removed so that the liquid contained in the garbage will drain through the holes in the plate 75. The liquid drains into the catch basin 81 supported by means of the angle iron 82 welded or riveted to the upright legs 68. The bottom of the basin is provided with a pipe 83 which will carry water or other liquids discharged into the basin to a sewer. It will be understood that the pipe 83 will be provided with a trap (not shown) to prevent sewer gas from rising in the pipe. A perforated plate or strainer similar to the plate 45 shown in Fig. 2 may be provided in the basin to prevent particles of garbage accidentally falling into the basin

from passing into the pipe 83 and clogging the same. In order to flush the catch basin 81, water is drained from the sink by the pipe 62 and discharged into the side of the basin at 84. The water discharging into the basin will swirl around the basin and thoroughly clean the same. The upper margin of the basin walls may be

turned as in the device shown in Figs. 1 to 4. A door 85 hinged to the support 68 as shown at 86 is provided with a conventional latch 87. It will be understood that a fixed or removable panel 88 will be applied over the lower half of the support 68 to close the same, and together with the front wall of the receptacle and the door 85 provide a finished appearance to the apparatus. If desired the rear and side walls of the apparatus may be covered by sheet metal or the like, suitably secured to the legs 68, in order to prevent odors from the garbage escaping into the room.

The apparatus is used in the same manner as that disclosed in Figs. 1 to 4, that is, when it is desired to place garbage in the receptacle, the cover 13 having the usual handle 14 is removed from the sleeve 64 and the garbage discharged into the receptacle. Any liquid contained in the garbage will drain through the perforated plate 75 into the catch basin 81. Water draining through the pipe 62 will flush the stained water, draining from the garbage, from the basin into the sewer drain 83. As in the apparatus illustrated in Figs. 1 to 4 the garbage first deposited into the receptacle will cooperate with the perforated plate 75 to act as a filter to prevent small articles of garbage from falling into the catch basin 81 and will also tend to strain and remove minute particles from the liquid draining into the catch basin. By opening the door 85 the tight fitting screw cap 76 may be applied to the depending flange 73 to seal the opening 72 and then by pulling on the handle 71 the receptacle 69 may be withdrawn from the supporting structure and emptied and cleansed.

In Fig. 8 there is shown a section of the sink and fittings illustrated in Fig. 2. The cap 13 has been replaced by funnel 90 which fits snugly and removably in the sleeve 11. The funnel prevents articles and water in the sink from entering the garbage pail 26. While the funnel is shown as applied to sink 5, it may also be used with sink 60 if desired. The funnel 90 is closed by means of the snug-fitting but removable cap 91 which prevents odors from escaping from the garbage pail. This cover is removed when garbage is to be discharged into the pail 26. A large stopper or cover plate may be used at the bottom of the funnel instead of at the top as shown, if desired.

While two modifications of the invention have been described it is apparent that many variations may be made within the scope of the invention and the invention therefore is not to be considered as limited by the description.

What I claim is:

1. In combination with a sink having a drain and an opening therein, said drain being located at the bottom of said sink, a receptacle supported below said opening, said receptacle having an opening in the bottom thereof, a catch basin supported below said receptacle, said drain discharging into said basin for flushing the same.

2. In combination, a sink having a drain opening in the bottom thereof and a second opening, a support, liquid receiving means carried by said support and disposed in spaced relation below said second opening, a conduit extending from

said drain opening to said means, a receptacle carried by said support and disposed above said liquid receiving means and below said second opening for receiving garbage discharged there-through, said receptacle having an opening in the bottom thereof whereby liquid may drain from said receptacle into said liquid receiving means.

3. In combination, a sink having a drain opening and a second opening, a receptacle, a support, means carried by said support for holding said receptacle in garbage receiving position below said second opening, said receptacle being movable away from said sink and having an opening in the bottom thereof through which liquid may drain, means disposed below said second opening adapted to receive liquid draining from said receptacle, a conduit extending from said drain opening and discharging into said last-mentioned means whereby liquid passing through said conduit will flush said last-mentioned means, and means for closing the opening in the bottom of the receptacle.

4. In combination, a sink having spaced openings therein, a support under said sink, a receptacle carried by said support and adapted to be held in garbage receiving position below one of said openings, said receptacle having an opening in the bottom thereof through which liquids may drain, means carried by said support for receiving liquid draining from said receptacle, a conduit extending from a second sink opening to said means, and means for temporarily closing the opening in the bottom of said receptacle.

5. In combination, a sink having spaced openings therein, a support, a receptacle carried by said support and adapted to be held in garbage receiving position below one of said openings, said receptacle having an opening in the bottom thereof through which liquids may drain, means for receiving liquid draining from said receptacle, a conduit extending from a second opening in the bottom of said sink to said means, whereby liquid may be drained from said sink and discharged into said means.

6. In combination, a sink having spaced openings therein, a support, a receptacle carried by said support and adapted to be held in garbage receiving position below one of said openings, said receptacle having an opening in the bottom thereof through which liquids may drain, means for receiving liquid draining from said receptacle, a conduit extending from a second sink opening to said means, and means having sealing engagement with the top of said receptacle to prevent odors escaping therefrom.

7. In combination, a sink having a plurality of openings in the bottom thereof, a receptacle supported below said sink and adapted to be moved into garbage receiving relation with one of said openings, said receptacle having an opening in the bottom thereof, through which liquid only will pass, a basin disposed below said receptacle and adapted to receive liquid draining from said receptacle, a conduit opening at an angle into a side wall of said basin and into another of said openings in said sink whereby water discharging through said last-mentioned opening will flow into said basin to flush the same, and means for conveying liquid discharged into said basin to a sewer or the like.

8. In combination, a sink having a drain opening and a second opening therein, an adjustable upright member, a bracket rotatably carried by said member, a garbage receptacle detachably carried by said bracket and movable therewith

into garbage receiving position below said second opening and movable out of garbage receiving position away from said sink, whereby said receptacle may be removed from said bracket, said
 5 receptacle having an opening in the bottom thereof through which liquid may drain, a catch basin supported on said upright member below said bracket and in vertical alinement with said
 10 second opening to receive liquids draining from said receptacle, a conduit extending from said drain opening and opening into said catch basin whereby liquids passing through said drain opening will be discharged into said basin to flush the same.
 15 9. In combination, a sink having a drain opening and a second opening therein, an adjustable

supporting frame disposed below said sink, a garbage receptacle slidably and removably mounted on said supporting frame and adapted to receive garbage discharged through said second opening, said receptacle having an opening
 5 in the bottom thereof through which liquid may drain, a catch basin supported on said frame below said receptacle and in vertical alinement with said second opening to receive liquids draining from said receptacle, a conduit extending
 10 from said drain opening to said basin whereby liquids draining from said sink through said drain opening will be discharged into said basin to flush the same.

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