Aug. 2, 1966 G. B. LONG 3,263,935

SINK AND DISPOSAL COMBINATION

Filed Sept. 13, 1963 2 Sheets-Sheet 1

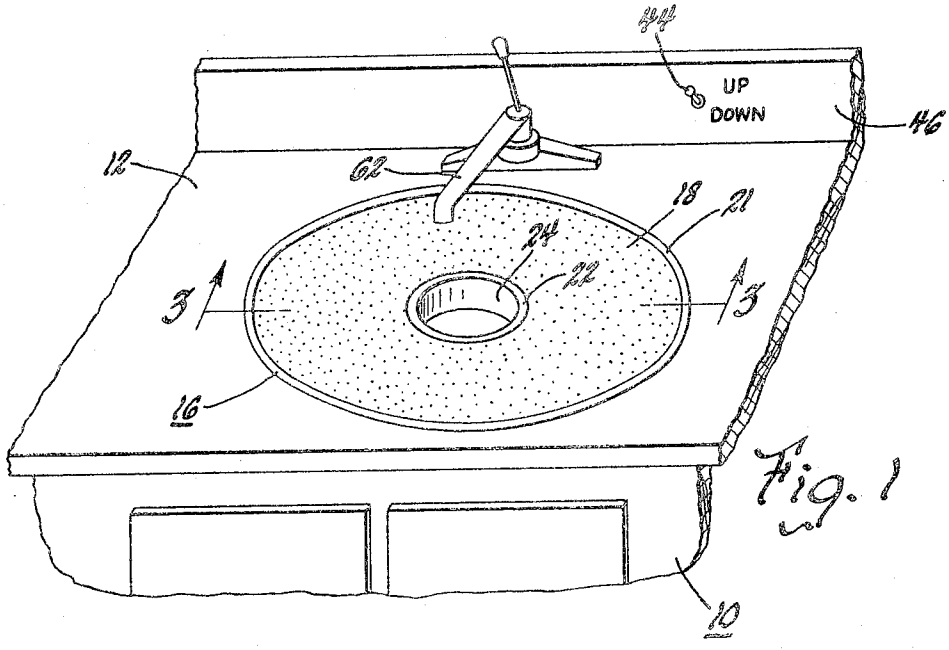


Fig. 1

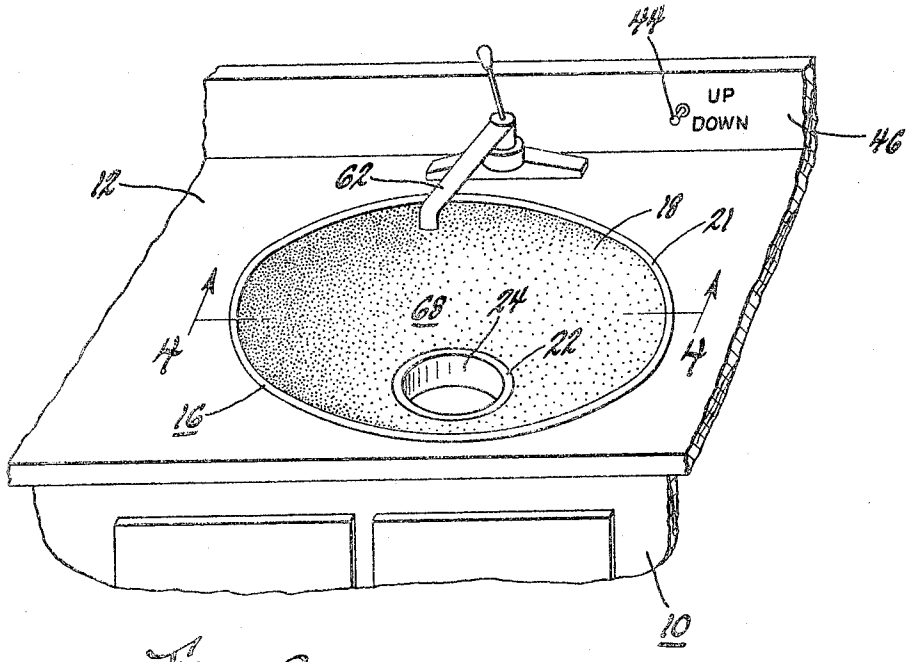


Fig. 2

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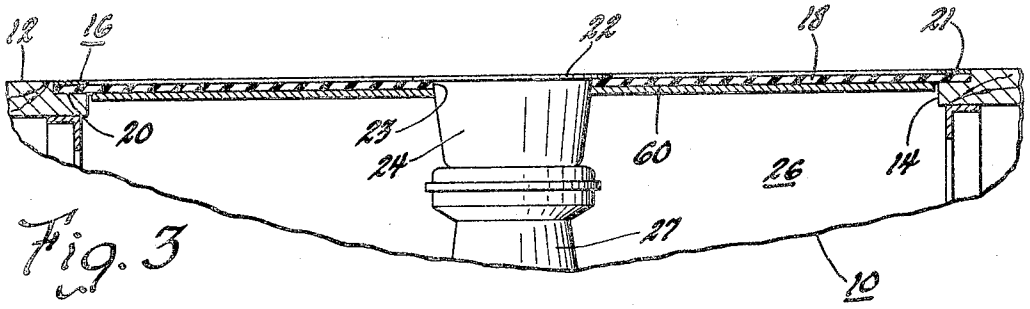


Fig. 3

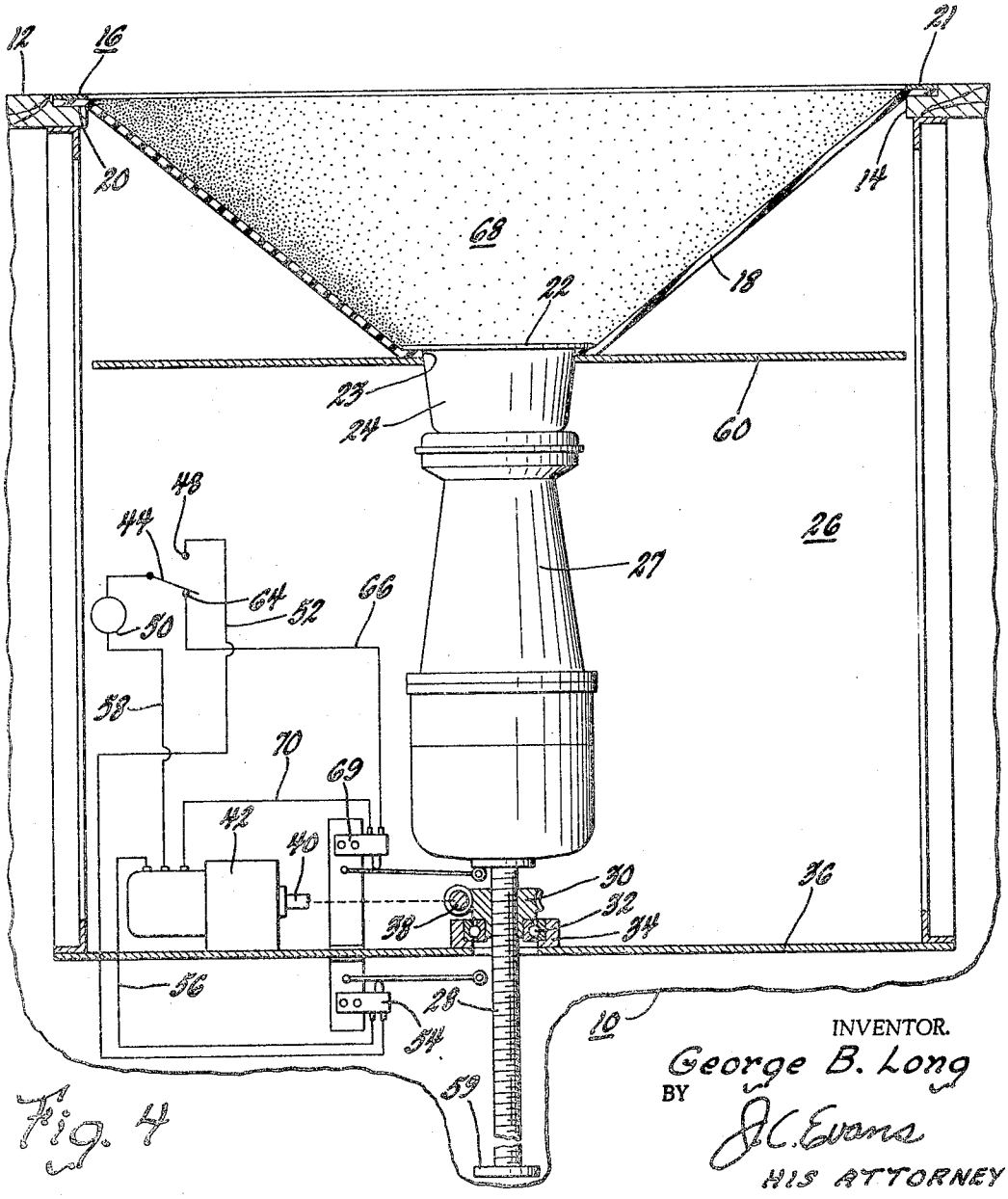


Fig. 4

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SINK AND DISPOSAL COMBINATION

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This invention relates to plumbing fixtures and more particularly to sink or lavatory fixtures.

One problem with present day plumbing fixtures of the sink or lavatory type is that they are located in work areas of limited size and, accordingly, often do not have as much adjacent work surface area as might be desired by a typical user.

An object of the present invention, therefore, is to improve sink type plumbing fixtures by the provision of a work surface area thereon that does not materially increase the overall dimensions of the fixture.

A further object of the present invention is to provide a sink type plumbing fixture including the provision of means for varying sink capacity in a limited space by deforming a resilient horizontal work surface into a shape forming a substantial sink cavity space from what was previously work surface area.

A still further object of the invention is to provide an improved sink arrangement including a small capacity sink receptacle or the like in a sheet of resilient material that is selectively deformable to form a substantial work surface area contiguous with the small capacity sink receptacle or a sink cavity of substantial capacity drained through the small capacity sink.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawings wherein a preferred embodiment of the present invention is clearly shown.

In the drawings:

FIGURE 1 is a view in perspective of a portion of a built-in cabinet including the plumbing fixture of the present invention;

FIGURE 2 is a perspective view like FIGURE 1 showing the fixture in another operative position;

FIGURE 3 is an enlarged, fragmentary view in vertical section taken along the line 3—3 of FIGURE 1; and

FIGURE 4 is an enlarged view in vertical section taken along the line 4—4 of FIGURE 2.

Referring now to the drawings, in FIGURES 1 and 2, a built-in cabinet **10** is illustrated having a top surface **12** with an opening **14** formed therein for receiving a sink or lavatory type plumbing fixture **16** constructed in accordance with certain of the principles of the present invention.

The sink fixture **16** more particularly comprises a sheet **18** of a suitable resilient material, for example, natural or synthetic rubber or a plastic such as Hypalon, a chlorosulfonated polyethylene compound manufactured by Du Pont, having the outer periphery thereof located within a recess **20** in top surface **12** surrounding the opening **14** where it is fastened by suitable means, for example, a fastening strip **21**. In the illustrated embodiment, sheet **18** is representatively shown as being substantially elliptical, it being understood that other geometric shapes would be equally suited for use in the present invention. The sheet **18** has an opening **23** formed substantially centrally thereof through which an open end portion **22** of a small capacity sink bowl or receptacle **24** projects with the main body of the receptacle **24** depending from the membrane **18** into an interior space or cavity **26** or machinery compartment

in the cabinet **10**. The bottom of the receptacle **24** connects to the upper end of a garbage disposal unit **27** that has one end thereof connected to an elongated screw element **28** threadably engaging a rotatable drive element **30** rotatably supported by a bearing **32** located in a support element **34** fixed to a support platform **36** within the cabinet. The garbage disposal unit is drained through suitable flexible conduits to a house plumbing drain system or the like located exteriorly of cabinet **10**. The drive element **30** has gear teeth formed on the outer periphery thereof located in engagement with a worm **38** operatively connected to the shaft **40** of a reversible electric motor **42** controlled by a switch **44** located on a rear panel **46** of the cabinet **10**.

When the switch **44** is in its "up" position, as illustrated in FIGURE 1, it closes a contact **48** to complete a circuit from a suitable power source **50** through a conductor **52**, a limit switch **54**, and a conductor **56** to motor **42** and thence through a conductor **58** to cause the motor to rotate in a predetermined direction to drive the worm **38** so as to rotate element **30** to drive the screw element **28** upwardly into the cavity **26** whereby the receptacle **24** has the open end portion **22** located substantially in the plane of the top surface **12** of cabinet **10** as best illustrated in FIGURES 1 and 3. When the receptacle **24** reaches its raised position, a plate **59** on the end of screw **28** opens limit switch **54** to de-energize motor **42**. In its raised position the sheet **18** of resilient material is substantially flat and a planar surface **60** secured to the open end portion **22** of the receptacle **24** is located in juxtaposition with the underside thereof to form a solid laminar work surface in surrounding relationship with the bowl **24**. In the illustrated embodiment, the small sink **22** is located below the outlet of a spigot **62** so that it can be used as a limited space for carrying out tasks that do not require a substantial sink space, as for example, manicuring, peeling vegetables, or the like.

On the other hand, if it is desired to have a substantial sink space in the illustrated embodiment of the invention, the switch **44** is moved to the position illustrated in FIGURE 2 to close a contact **64** for completing a circuit from source **50** through a conductor **66**, a limit switch **69**, a conductor **70** to motor **42** and thence through conductor **58** back to source **50**. In this case, the motor **42** will rotate in a direction to cause the worm **38** to rotate element **30** so as to drive the screw **28** exteriorly of the interior cabinet space **26** whereby the sheet **18** is stretched between the fastening strip **21** on the outer periphery thereof and the bowl **24** to form a sink cavity or space **68** as best illustrated in FIGURES 2 and 4 for carrying out tasks requiring greater sink capacity. In this case, the small bowl or sink **24** serves as a drain from the large capacity cavity **68** into the garbage disposal unit **27**.

While in the illustrated embodiment of the invention an electromechanical arrangement is illustrated as the means for stretching the sheet **18** into a shape to form a large sink cavity, it will be appreciated that the invention in certain of its aspects contemplates an arrangement wherein a work surface area is effectively deformed by other means such as a fluid system or the like to concave shape to convert a horizontal work space into a sink-like cavity with the deformable material being associated with a small capacity receptacle that serves as a limited sink space when the material is in its horizontal disposition.

In view of the aforesaid explanation of the invention, it will be appreciated that the invention is well suited for use in a limited work space where a conventional sink arrangement would not have sufficient work space area because it enables a user to selectively provide a relatively

large work surface area or a sink capacity approaching that of a conventional sink arrangement by merely positioning a switch element or the like into one of a plurality of positions.

While the embodiment of the present invention as herein disclosed constitutes a preferred form, it is to be understood that other forms might be adopted.

What is claimed is as follows:

In combination, a fixed member, a layer of elastic material, means for fastening the outer periphery of said layer to said fixed member for locating said layer of elastic material in a horizontal work surface plane, a receptacle depending from said layer having an open end portion communicating through said layer forming access to a small capacity sink region contiguous with the horizontal work surface formed by said layer of elastic material, a garbage disposal unit communicating with said receptacle, means including said garbage disposal unit for moving said receptacle relative to said fixed member to stretch said layer of elastic material from its horizontal disposition to form a sink cavity having a larger capacity than the above-mentioned sink region.

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