Feb. 24, 1925. 1,527,471

E. W. CLINCHY ET AL

PLUMBING TRAP

Filed Nov. 16, 1923

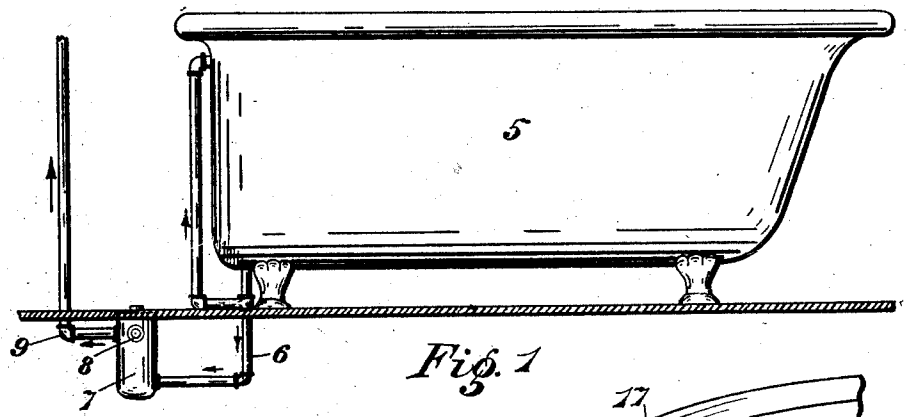


Fig. 1

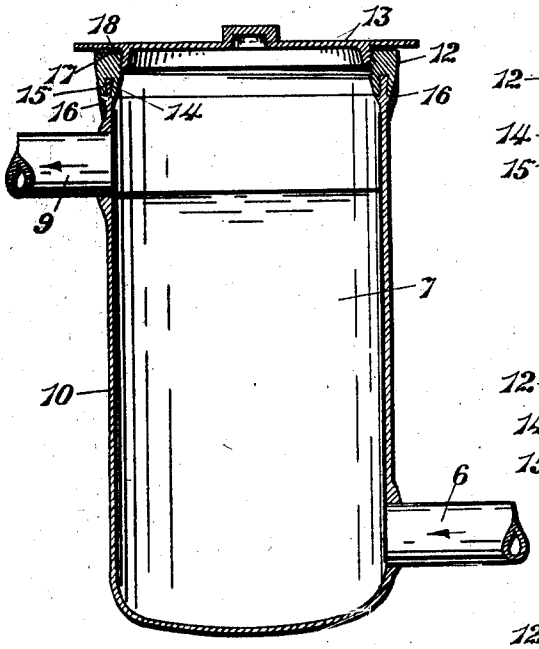


Fig 2

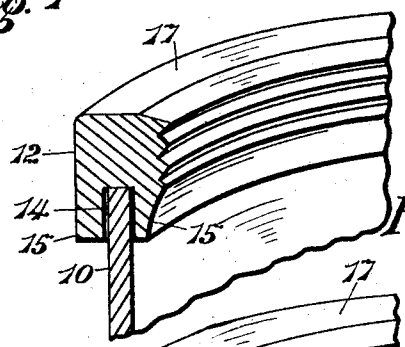


Fig 3

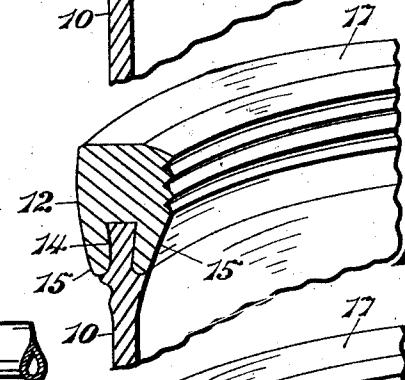


Fig 4

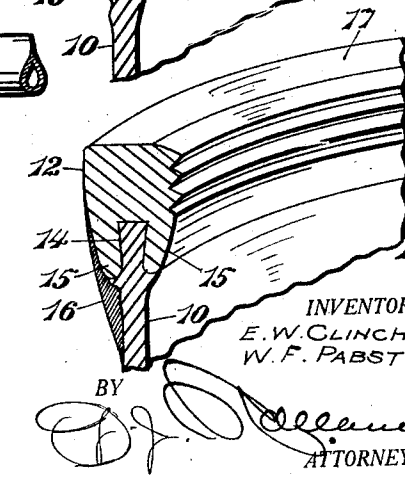


Fig 5

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UNITED STATES PATENT OFFICE.

EDWARD W. CLINCHY AND WILLIAM F. PABST, OF DENVER, COLORADO.

PLUMBING TRAP.

Application filed November 16, 1923. Serial No. 675,165.

To all whom it may concern:

Be it known that we, EDWARD W. CLINCHY and WILLIAM F. PABST, citizens of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Plumbing Traps, of which the following is a specification.

Our invention relates to plumbing traps and more particularly to certain new and useful improvements in the construction of drum traps of the type used in connection with the outlet of a bathtub to seal the same against the return flow of obnoxious gases.

It is an object of our invention to furnish a trap of the above described character with a rim of novel form which provides a seat for the screw-cover of the trap and which is devoid of inwardly projecting and sharp parts as in many of the traps at present in use, interfere with inserting the hand in installing the fixture and in removing accumulated solids when the trap is in operation.

Another object of our invention resides in the provision of a trap-rim of simple, strong and durable construction in rigid and air-tight connection with the body portion of the trap, and in the method of forming said connection.

With the above and other objects in view, our invention consists in the construction and assembly of elements illustrated in the accompanying drawings in which similar characters of reference designate corresponding parts throughout the several views and in which—

Figure 1 represents a side elevation of a bathtub and its plumbing fixtures in which a drum trap constructed in accordance with our invention, is included;

Figure 2, a vertical sectional elevation of the trap drawn to an enlarged scale, and

Figures 3, 4 and 5, fragmentary and sectional perspective views showing different steps in applying the rim-member of the trap to the cylindrical body member of the same.

Referring more specifically to the drawings, 5 designates a bathtub of conventional construction, 6 the drain pipe connected with the outlet of the tub and 7 the trap connected with the drain pipe. The outlet pipe of the trap has been shown at 8 and the vent pipe has been designated by the reference character 9.

The improved trap comprises a cylindrical body member 10 made of lead or other ductile or malleable metallic substance which is provided with openings for the connection of the above described conduits.

The cylinder which is open on top, has at its upper edge a rim for the application of a screw-cover and it is in the formation and method of application of this rim that our invention more particularly resides.

The rim as shown in the drawings, consists of a ring 12 preferably made of brass or other similar composition, which has interiorly a female screw thread to co-operate with a corresponding male thread on the before mentioned cover 13.

The ring has in its lower edge a concentric groove 14 adapted to admit the edge-portion of the body member of the trap as illustrated in Figure 3.

With the parts thus relatively positioned, lips 15 of the ring formed at opposite sides of its groove, are pressed together and the metal of the lead cylinder is simultaneously compacted inside the groove and upset against the edges of the lips as shown in Figure 4.

The operation is preferably performed by means of a milling tool applied at the juncture of the two members of the trap while the latter is rotated in a lathe or similar machine.

By bending one or both of the lips in the above stated manner, the groove 14 which originally is rectangular in section is caused to assume a dove-tail shape and the action of the milling tool upon the malleable metal of the body member of the trap compacts the edge portion of the same within said groove to completely fill the same.

The rim member 12 is thus permanently locked upon the body member 10 of the trap and the joint between the members is rendered substantially gas tight by the intimate contact of the upset portions of the lead with the edges of the lips 15.

The joint between the members is rendered further impervious to the escape of gases by the application of a filling of solder at the outside of the trap as shown at 16 in Figure 5.

The rim 12 of the trap, provides a flat seat 17 for the screw cover 13 and in order to still further provide against the escape of gases from the trap, a gasket 18 of fiber or other suitable material is placed between

the seat and the flange of the cover with which it engages.

Having thus described our invention, it will be evident that the rim formed and applied as shown and hereinabove set forth, provides an effective and permanent medium for the gas-tight connection of the cover with the body portion of the trap, and when the cover is detached from the trap, the rim provides a smooth entrance to the cylindrical body member of the same, for its connection with the conduits of the fixture or for the removal of accumulated matter.

What we claim and desire to secure by Letters Patent is:

1. An article of manufacture, a plumbing trap comprising in combination with a cylindrical body member of ductile material, a rim-member having an annular groove into which an edge portion of the body-member is fitted, the material of which the body member is composed being upset against the edges of the rim-member at opposite sides of the groove.

2. An article of manufacture, a plumbing trap comprising in combination with a cylindrical body member of ductile material, a rim-member having an annular groove into which an edge portion of the body-member is fitted, the material of which the body member is composed being upset against the edges of the rim-member at opposite sides of the groove, and a filler of solder covering the joint between the members.

3. An article of manufacture, a plumbing trap comprising in combination with a cylindrical body member of ductile material, a rim-member having concentric lips pressed together at opposite sides of an edge-portion of the body member and providing a groove of dove-tail section in which said edge-portion is compacted, the material of which the body member is composed being upset against the edges of the lips.

4. An article of manufacture, a plumbing trap comprising in combination with a cylindrical body member of ductile material, a rim-member having concentric lips pressed together at opposite sides of an edge-portion of the body member and providing a groove of dove-tail section in which said edge-portion is compacted, the material of which the body member is composed being upset against the edges of the lips, and a filler of solder covering the joint between the members.

5. As an article of manufacture, a plumbing trap comprising in combination, a rim-member having an annular groove of dove-tail section between annular lips of substantially equal lengths, and a body member of ductile material having an edge portion fitted in said circular groove and having its material below the rim member upset against the edges of the lips thereof.

6. As an article of manufacture, a plumbing trap comprising in combination, a rim member having an annular groove of dove-tail section between annular lips, a body member of ductile material having an edge portion fitted in said circular groove and having its material below the rim member upset against the edges of the lips thereof, and a filler of solder covering the joint between the members flush with the outer surfaces of the same.

In testimony whereof we have affixed our signatures.

EDWARD W. CLINCHY.
WILLIAM F. PABST.