P. HAAS.

DETACHABLE FLUSH RIM FIXTURE.

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1,107,515.

Patented Aug. 18, 1914.

Fig. 1.

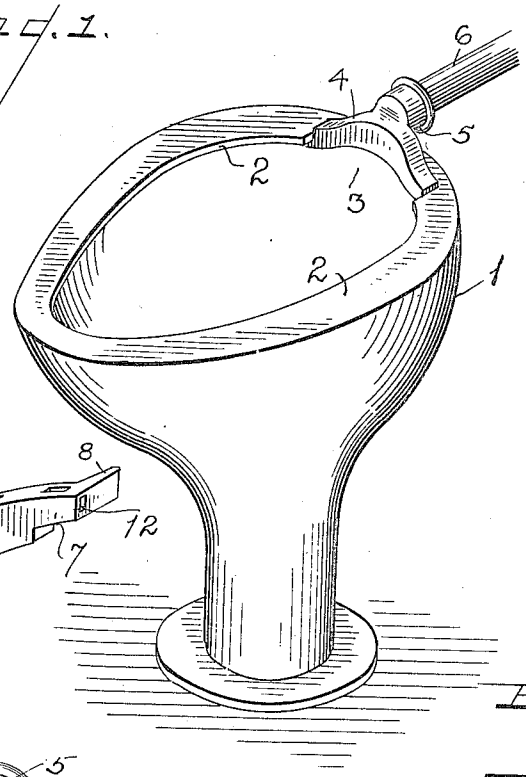


Fig. 2

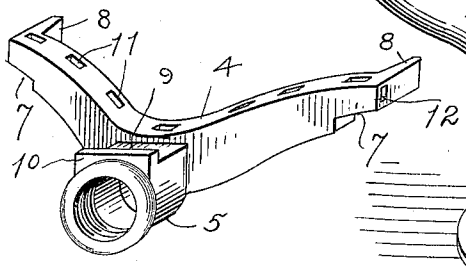


Fig. 3.

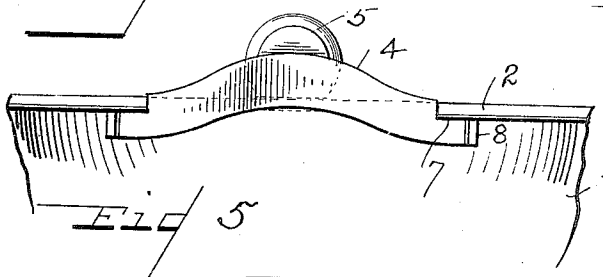


Fig. 4.

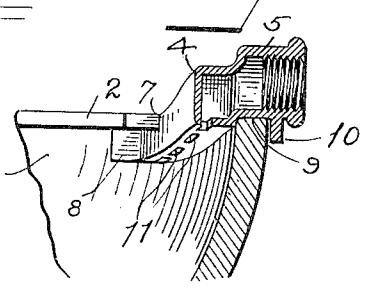
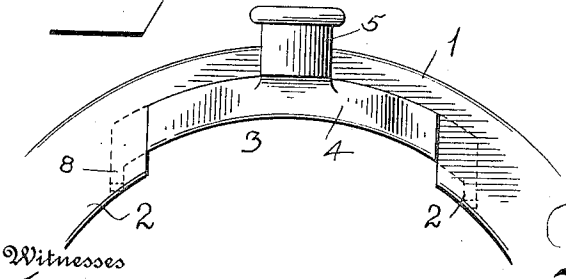


Fig 5



Witnesses

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DETACHABLE FLUSH-RIM FIXTURE.

1,107,515. Specification of Letters Patent. Patented Aug. 18, 1914.

Application filed December 2, 1912. Serial No. 734,429.

To all whom it may concern:

Be it known that I, PHILIP HAAS, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Detachable Flush-Rim Fixtures, of which the following is a specification.

My invention relates to plumbing fixtures and particularly to a detachable flush rim fitting or wash nozzle for water closets.

The object of the invention is to simplify the structure as well as the means and mode of operation of such devices whereby they will not only be cheapened in construction, but will be more efficient in use, easily and quickly detachable for cleansing and repairs, and unlikely to get out of order.

A further object of the invention is to provide a construction which will insure the thorough washing of every portion of the hopper or bowl from its highest point, and adapted to concentrate a powerful jet of water upon that portion of the bowl most susceptible to soiling.

With the above primary and other incidental objects in view as will more fully appear in the specification, the invention consists of the features of construction, the parts and combinations thereof, and the mode of operation, or their equivalents, as hereinafter described and set forth in the claims.

Referring to the drawings, Figure 1 is a perspective view of a closet hopper or bowl with the flush rim fitting forming the subject matter hereof applied thereto. Fig. 2 is a perspective view of the fitting detached from the bowl and in inverted position. Fig. 3 is a front elevation of the fitting and bowl rim. Fig. 4 is a vertical sectional view. Fig. 5 is a plan view.

Like parts are indicated by similar characters of reference throughout the several views.

Heretofore closet bowls of the type herein shown, have usually been constructed with a water conduit extending about the periphery of the bowl beneath the inturned flange thereof. This conduit is usually provided with perforations, which become clogged by deposit or sediment. Such flush conduits being located beneath the level of the bowl rim are insanitary, since any stoppage of the soil pipe which might cause the bowl to fill or overflow, would result in the contents of the bowl filling such flush conduit and backing into the supply pipe, thus perhaps contaminating the water supply of the house. Furthermore in such former construction it is necessary to drill through the wall of the bowl to admit the water supply to the flush conduit. These difficulties are overcome in the present construction by locating the inlet conduit in a plane above the level of the bowl rim, thus at the same time obviating the necessity of drilling the side wall of the bowl and placing the inlet at such height that the contents of the bowl cannot possibly back into the supply conduit.

In the drawings, 1 is a water closet bowl or hopper of ordinary form and construction. The bowl is provided with an inward projecting flange 2 about the periphery thereof, except for a limited distance at the rear of the bowl where the flange is omitted as at 3. The flush rim fixture forming the subject matter hereof engages within the opening 3 over the side wall of the bowl 1 and beneath the adjacent ends of the inturned flange 2.

The flush fixture comprises a transverse hollow conduit 4, preferably rectangular in cross section from the medial portion of which projects laterally a threaded sleeve or conduit connection 5 with which the water supply conduit 6 is connected. The transverse conduit 4 is arched vertically, whereby when the extremities of the conduit are engaged beneath the ends of the inturned flange 2, the central portion of the conduit will project above the rim of the bowl with the lateral connection 5 overhanging the edge of the bowl. The transverse conduit 4 is also formed arcuate in a horizontal plane to correspond with the contour of the bowl. The extremities of the transverse conduit 4 are shouldered or rabbeted as at 7, within which rabbets the ends of the flange 2 engage as shown in Fig. 3. The extremities of the conduit 4 are extended laterally as at 8 to afford a wider bearing upon the under side of the flange 2. The under side of the lateral connection 5 is provided with a flat face 9 to engage and rest upon the edge of the bowl rim, and a pendant gib or lip 10 engaging the outer face of the bowl rim to retain the device in place.

The device is engaged with the bowl by drawing the opposite ends of the conduit 4 beneath the flange 2 by an outward movement of the device, and then hooking the

lip or gib 10 over the edge of the bowl wall. On its under side the conduit 4 is provided with a series of perforations 11 adapted to direct jets of water downward over the interior rear surface of the bowl. In the extreme ends of the conduit are additional orifices 12 adapted to direct jets of water in opposite directions about the periphery of the bowl.

It is to be noted that the jets of water from both the orifices 11 and 12 engage the interior of the bowl in its highest plane, and thus insures the washing of the entire inner surface of the bowl or hopper. The water connection being located above the level of the rim there is no projection within the bowl which would receive and retain a deposit of matter. Furthermore in case of stoppage of the waste pipe the bowl would overflow before the inlet pipe could be contaminated. The device is at all times accessible, and is easily removed and replaced.

From the above description it will be apparent that there is thus provided a device of the character described, possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modification in its form, proportion, detail construction, or arrangement of parts, without departing from the principle involved or sacrificing any of its advantages.

While in order to comply with the statute, the invention has been described in language more or less specific as to certain structural features it is to be understood that the invention is not limited to any specific details, but that the means and construction herein described comprise but one mode of putting the invention into effect, and the invention is therefore claimed broadly in any of its possible forms or modifications within the scope of the appended claims.

Having thus described my invention I claim:

1. The combination with a bowl having an inturned recessed flange of a detachable flush nozzle comprising an arcuate transverse conduit of greater length than the recess in the inturned flange the ends of which project beneath the inturned flange at opposite sides of the recess, the medial portion of which projects above the rim of the bowl due to the curvature of the arcuate conduit, and a supply conduit having communication with the transverse conduit above the rim of the bowl and projecting at a right angle thereto, the transverse conduit being perforated throughout its lower side and having terminal perforations therein.

2. The combination with a bowl having an inturned recessed flange of a detachable flush nozzle comprising an arcuate conduit of greater length than the width of the recess, the ends of which extend beneath the inturned flange at each side of the recess, such projecting ends being offset to form shoulders in which the extremities of the flange engage, a plurality of perforations in said conduit, and a supply conduit leading thereto.

3. The combination with a bowl having an inturned recessed flange of a detachable flush nozzle comprising a perforated conduit bent into an arcuate form horizontally to conform with the curvature of the bowl and arched vertically sufficient to project the medial portion of the conduit above the rim of the bowl when the extremities of the conduit are engaged beneath the extremities of the inturned flange, a horizontally disposed supply conduit communicating with the first mentioned conduit above the rim of the bowl on which the supply conduit rests, shouldered extremities for the first mentioned conduit in which the extremities of the flange engage, and laterally disposed fingers carried by the first mentioned nozzle engaging the under side of the flange.

4. As an article of manufacture, the herein described flush nozzle comprising the conduit 4 curved both horizontally and vertically and having the perforations 11 and 12 therein, the shoulders 7 formed in the extremities of the conduit 4, the laterally extending fingers 8 projecting from said shouldered extremities and the horizontally disposed supply conduit 5 communicating with the medial portion of the conduit 4.

In testimony whereof, I have hereunto set my hand this 29th day of November 1912.

PHILIP HAAS.

Witnesses:
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L. E. FELDMAN.