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LAVATORY PLUG AND MEANS FOR OPERATING THE SAME.

APPLICATION FILED JULY 22, 1907.

908,477. Patented Jan. 5, 1909.

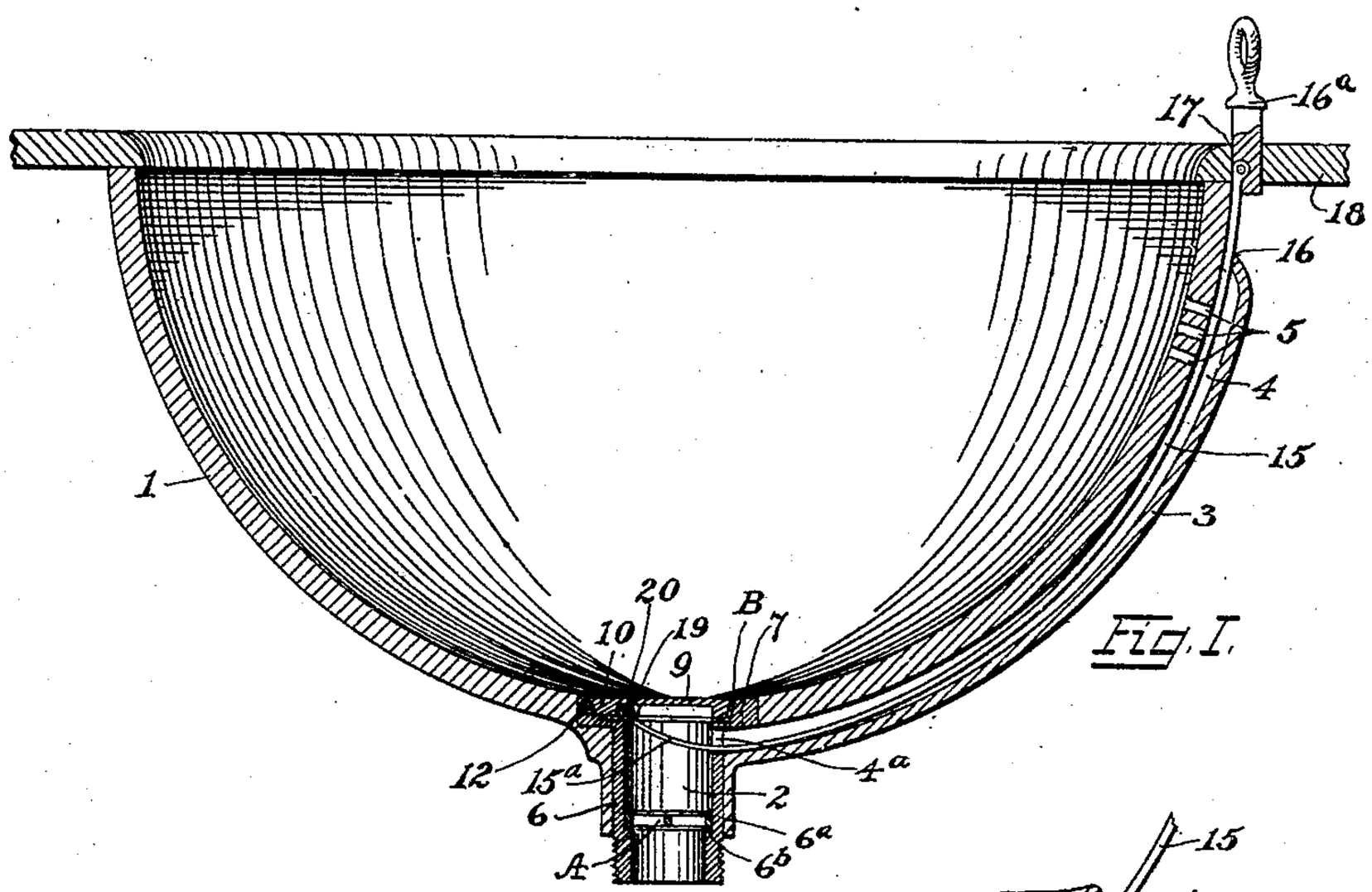

Fig. I.

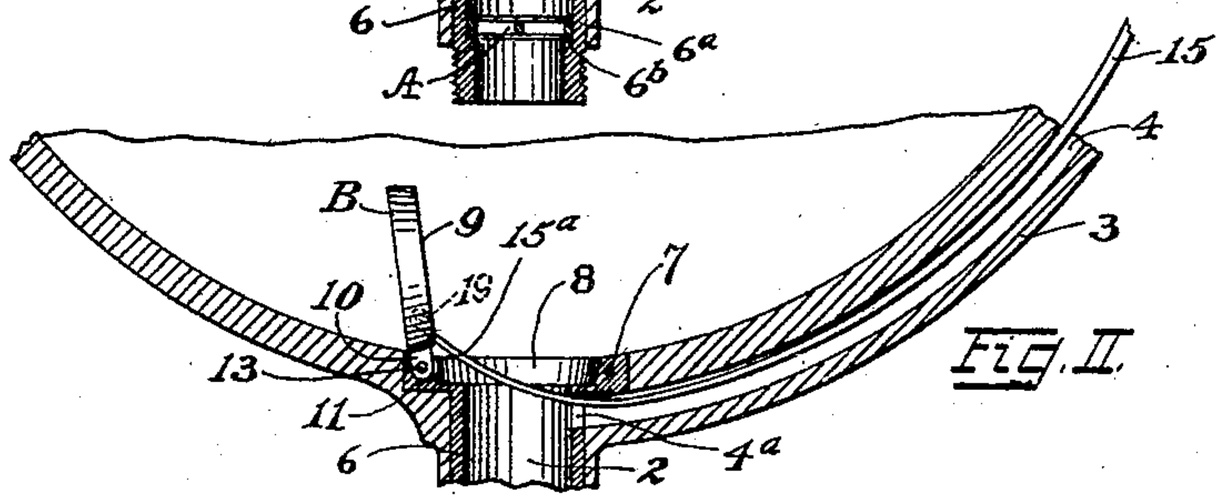

Fig. II.

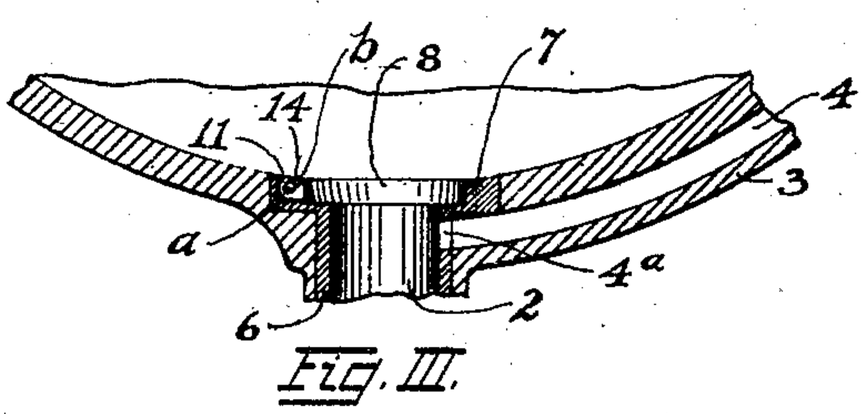

Fig. III.

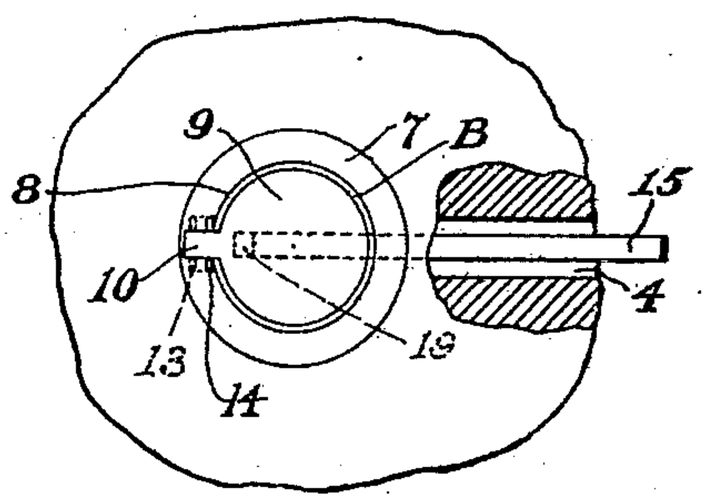

Fig. IV.

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UNITED STATES PATENT OFFICE.

BERNERD N. MILES, OF NORTH RIDGEVILLE, OHIO, ASSIGNOR OF ONE-HALF TO OBED C. BILLMAN, OF CLEVELAND, OHIO.

LAVATORY-PLUG AND MEANS FOR OPERATING THE SAME.

No. 908,477. Specification of Letters Patent. Patented Jan. 5, 1909.

Application filed July 22, 1907. Serial No. 384,888.

To all whom it may concern:

Be it known that I, BERNERD N. MILES, a citizen of the United States, residing at North Ridgeville, in the county of Lorain and State of Ohio, have invented certain new and useful Improvements in Lavatory-Plugs and Means for Operating the Same, of which the following is a specification.

My invention relates to improvements in lavatory-plugs and means for operating the same, or, more particularly, to means for positively opening and closing the discharge-opening or orifice of a lavatory-bowl, or similar liquid containing vessel.

The primary object of the invention is to provide a generally-improved pivotally-mounted waste-plug or valve and operating device specially designed for and which may be readily attached to any lavatory-bowl or washbasin of the usual construction, and which will be exceedingly simple in construction, cheap of manufacture and efficient in use.

Another object of the invention is to provide an improvement in devices which will not only positively open and close the waste-plug or valve but will positively hold and maintain the same in its respective open and closed positions.

A further object is to improve the constructions of the mountings of the waste-plug and operating device whereby said parts may be readily removed for inspection, repair, or substitution of new parts.

A still further object is to provide a pivotally-mounted detachable waste-plug mounted upon and seated within the discharge-opening-bushing, of standard size and conventional style, and an improved operating-member pivotally and detachably-secured to said waste-plug and slidably-mounted within the discharge-orifice or duct of the usual integral discharge-conduit of the lavatory-bowl.

With these and other ends in view, the invention consists in the novel construction, arrangement and combination of parts, hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the accompanying drawings, forming a part of this specification, Figure I, is a vertical sectional view of an ordinary lavatory-bowl, showing the improved waste-plug and operating mechanism attached thereto in closed position. Fig. II, a similar view of the lower or discharge portion of the bowl, with waste-plug in open position. Fig. III, a similar view, with waste-plug removed. Fig. IV, a top plan view of the discharge portion of the bowl, with waste-plug closed.

Similar characters of reference designate like parts throughout all the figures of the drawings.

The invention is shown as applied to an ordinary lavatory-bowl 1, provided with the usual central discharge-opening or orifice 2, and integral overflow-conduit 3, having the usual overflow-duct 4, communicating below with said discharge-opening 2, and above with the ordinary overflow-outlets 5, in the wall of the bowl. The bushing 6, is provided with a flanged-head 7, and an annular recess 8, adapted to receive and contain and form a seat for the waste-plug 9, mounted as hereinafter described. The bushing 6, is provided at its side with an opening 4^a, forming a continuation of the overflow-duct 4, and is further provided with a depending sleeve 6^a, designed to be connected with the usual waste-pipe. The depending-sleeve 6^a, carries a catcher or strainer disk-plate A, mounted upon an annular shoulder 6^b.

The waste-plug 9, may carry a rubber gasket B, and is provided with a hinge-lug 10, adapted to fit within a recess 11, formed in the head 7, of the bushing 6, and just above and diametrically-opposite the opening 4^a, of the overflow-duct 4. The waste-plug 9, is pivotally-mounted, and the hinge-lug 10, may be secured by a cross-pin 12, inserted from the sides of the head, but preferably, by means of such pin passing simply through the hinge-lug 10, the projecting ends thereof forming trunnions 13. If desired, however, the trunnions 13, may be formed integral with the hinge-lug 10. The trunnions 13, rest within trunnion-bearing-recesses 14, extending from the sides of said recess 11, and also extending upwardly and inwardly in the form of slot-openings, away from the rear of said recess 11, the lower or bearing portions "*a*", of said recesses 14, being near the rear and bottom of said recess 11, while the upper or open ends "*b*", thereof extend to the upper exposed surface, or inner edge of the flanged ring or head por-

tion 7, preferably the former as shown most clearly in Figs. III, and IV, of the drawings.

The operating device comprises a flat spring-metal strap 15, slidably-mounted within the overflow-duct 4, the upper portion extending through a bearing-opening 16, at the upper end of the overflow-conduit 3, and being suitably connected to or terminating in an operating-handle 16ª, extending through a suitable opening 17, of the lavatory-slab 18, at the rear of the bowl 1. The strap 15, preferably tapers from top to bottom as shown, so that a more flexible portion 15ª, is formed at the lower end, said flexible portion 15ª, extending through the opening 4ª, of the bushing 6, and upwardly and outwardly, terminating in a pivot-head or loop 19, secured beneath the waste-plug 9, near the pivoted end thereof by means of a cross-pin 20. If desired, however, the pivot-head or loop 19, may be secured to the waste-plug 9, near the opening 4ª, and, if desired, the waste plug may be pivoted near the opening 4ª, of the overflow-duct 4. When it is desired to open or raise the plug 9, the operating-handle 16, is pressed downwardly moving the strap 15, toward the discharge-opening 2, and, it will be observed that, owing to the construction and relative position of the parts, the plug 9, is not only positively held in its closed and open positions, as shown in Figs. I and II, but the spring-action or pressure of the flexible portion 15ª, being at all times downwardly, and outwardly toward the pivoted side of the plug when the latter is being moved to its open position, the trunnions 13, are thus securely maintained in the lower or bearing portions of the bearing-recesses 14. By removing the cross-pin 20, the plug 9, and strap 15, are disconnected, and either one or both may be removed from their respective operative positions.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of my invention will be readily understood.

Having thus described my invention, without having attempted to set forth all the forms in which it may be made, or all the modes of its use, I declare that what I claim and desire to secure by Letters Patent, is,—

1. A lavatory attachment, comprising a bowl provided with a discharge-opening and an overflow-conduit intersecting said discharge-opening, a waste-plug pivotally-mounted above said discharge-opening, and a spring-member slidably-mounted within said overflow-conduit and pivotally-secured to the under side of said waste-plug.

2. A lavatory attachment, comprising a bowl provided with a discharge-opening and an overflow-conduit, a waste-plug pivotally-secured at the side of said discharge-opening, and normally resting above said discharge-opening, and an operating-member mounted within said overflow-conduit and provided with a flexible lower portion pivotally-secured to the under side of said waste-plug.

3. In a lavatory attachment, the combination with a bowl provided with a discharge-opening, bearing-recesses at the side of said discharge-opening, and an overflow-conduit intersecting said discharge-opening at the side opposite and below the horizontal plane of said bearing-recesses; of a waste-plug-pivotally-mounted in said bearing-recesses, and an operating-member slidably-mounted in said overflow-conduit and provided with a flexible lower portion pivotally-secured to said waste-plug near the pivoted side thereof said flexible portion being adapted to normally hold down said waste-plug but to press upwardly and outwardly toward the pivoted side thereof when said waste-plug is moved to its open position by the movement of said operating-member toward said discharge-opening.

4. In a lavatory attachment, the combination with a bowl having a discharge-opening, an overflow-conduit intersecting said discharge-opening, a bushing seated in said discharge-opening and provided at its side with an opening communicating with said overflow-conduit and a flanged head having a recess above the horizontal plane of and diametrically-opposite said opening communicating with said overflow-conduit, said recess being provided at its sides with upwardly and inwardly-extending trunnion-bearing-recesses; of a waste-plug provided with a hinge-lug resting in said recess and provided with trunnions taking into said bearing-recesses, and an operating-strap or bar mounted within said overflow-conduit and having a flexible lower portion extending through said communicating opening of said bushing and pivotally-secured to the under side of said waste-plug near said hinge-lug.

5. In a lavatory attachment, a bowl provided with a discharge-opening and an overflow-conduit intersecting said discharge-opening, a waste plug pivotally secured above said discharge-opening and on the side opposite said overflow-conduit, and a flexible operating-member mounted within said overflow-conduit and having its lower portion extending upwardly and outwardly from the intersecting portion of said overflow-conduit and pivotally-secured to said waste-plug near the pivoted side thereof.

6. A lavatory attachment, comprising a bowl provided with a discharge-opening and an overflow-conduit intersecting said discharge-opening, a waste-plug pivotally-mounted at the side of said discharge-opening opposite said intersecting portion of said

overflow-conduit, and an operating-member slidably-mounted in said overflow-conduit and provided with a flexible portion pivotally-secured to the under side and in close proximity to the pivoted portion of said waste-plug, said operating-member adapted to raise said waste-plug when pressed downwardly and said flexible portion positively holding said waste-plug in its respective open and closed positions.

7. A lavatory attachment, comprising a bowl provided with a discharge-opening and an overflow-conduit, a bushing seated in said discharge-opening and provided with an undercut bearing-recess, a waste-plug provided at its side with a bearing resting in said undercut bearing-recess, and an operating-member slidably-mounted in said overflow-conduit and provided with a flexible lower portion pivotally-secured to said waste-plug and resiliently maintaining the same in operative relationship with said undercut bearing-recess.

In testimony whereof I have affixed my signature, in presence of two witnesses.

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Witnesses:
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