

No. 843,968.

PATENTED FEB. 12, 1907.

J. W. SHARP, JR.
BATH TUB WASTE FITTING.
APPLICATION FILED MAR. 19, 1906.

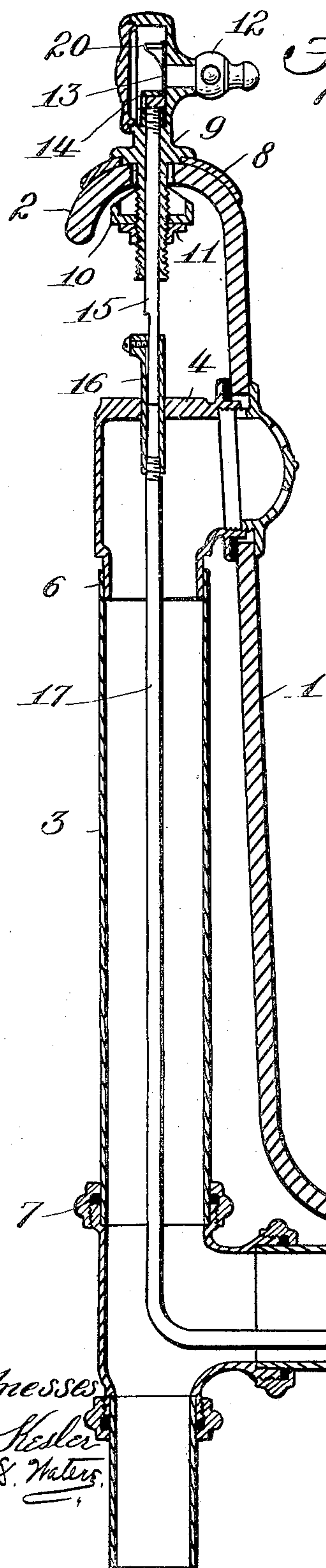


Fig. 1.

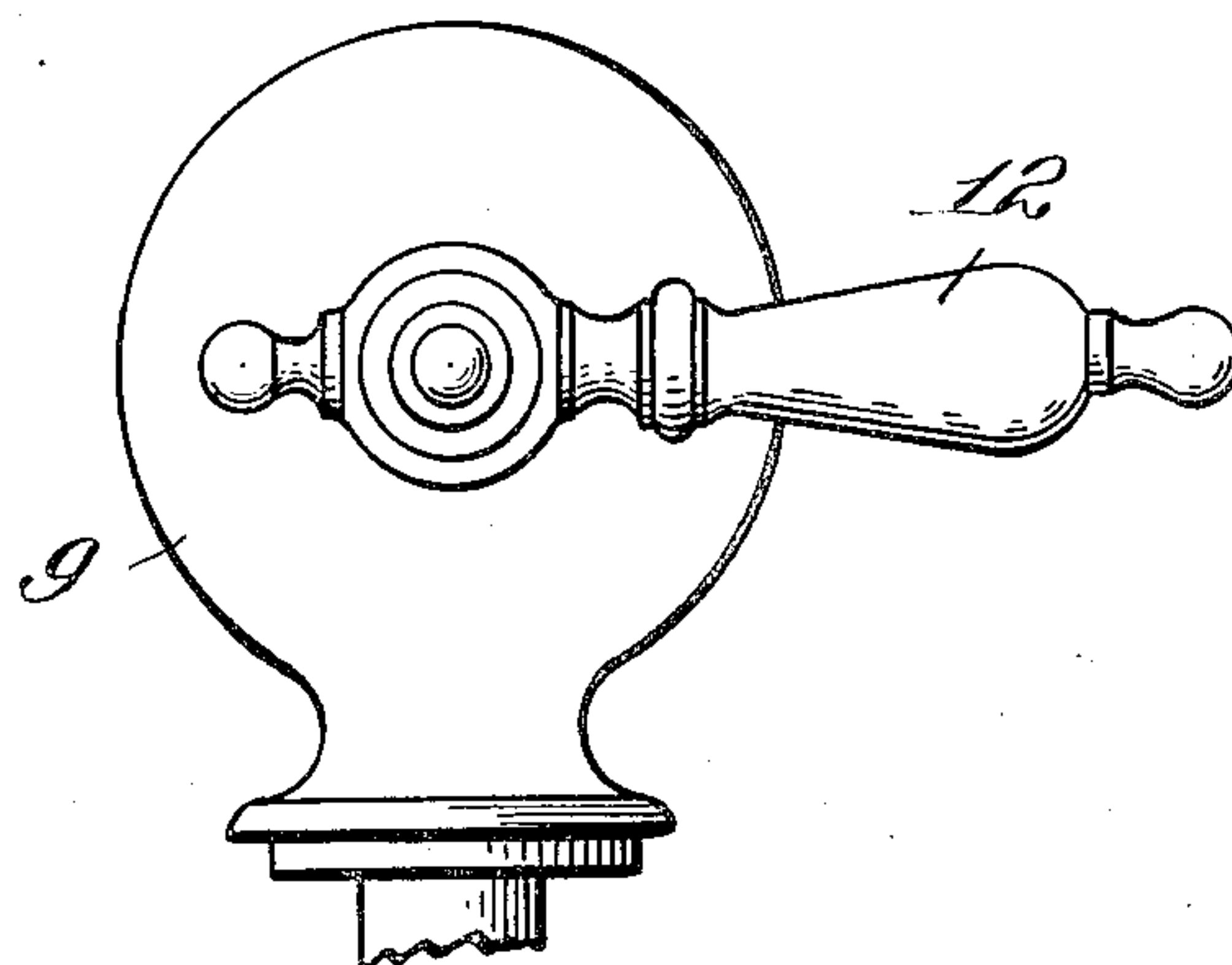


Fig. 3.

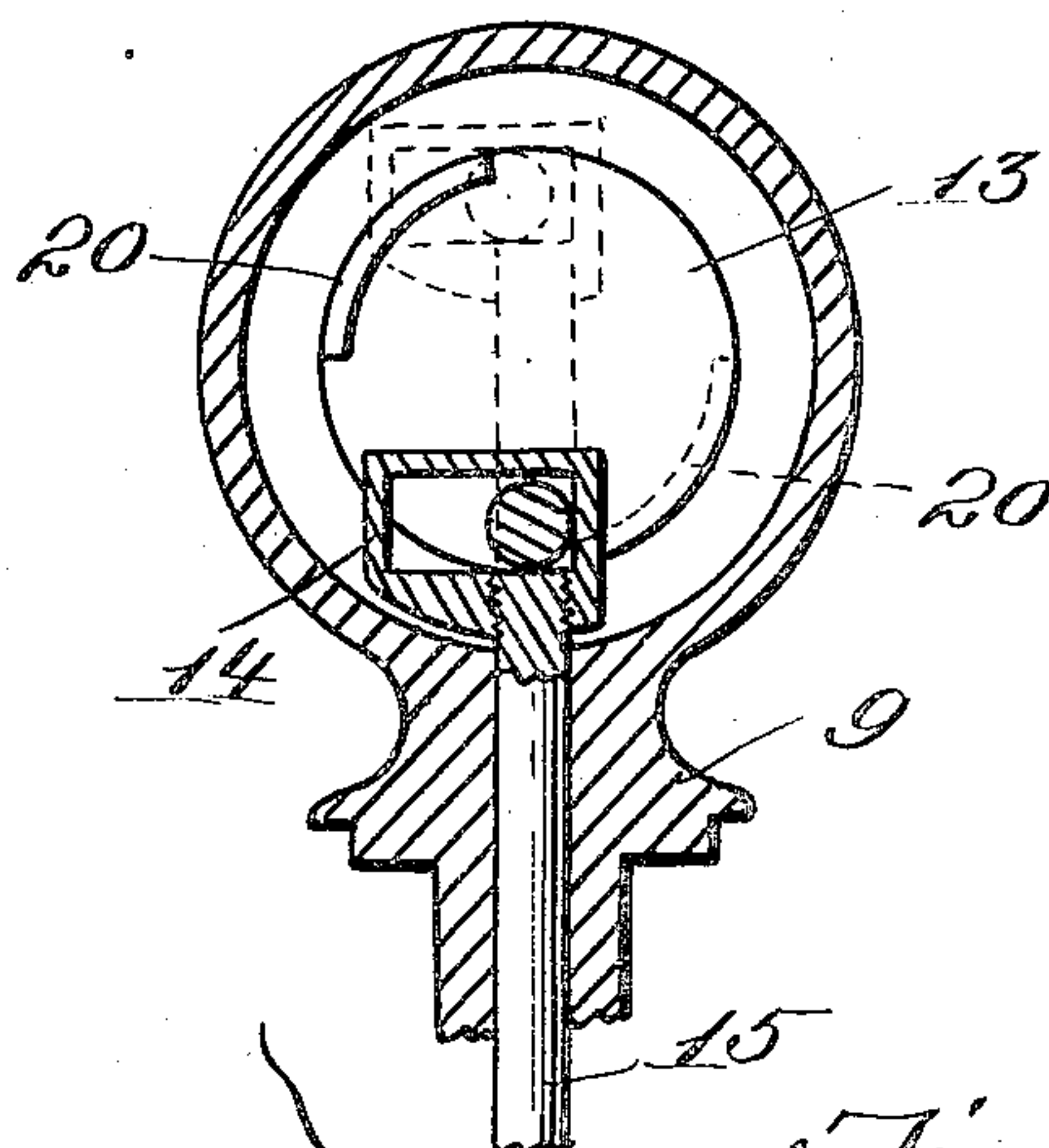


Fig. 4.

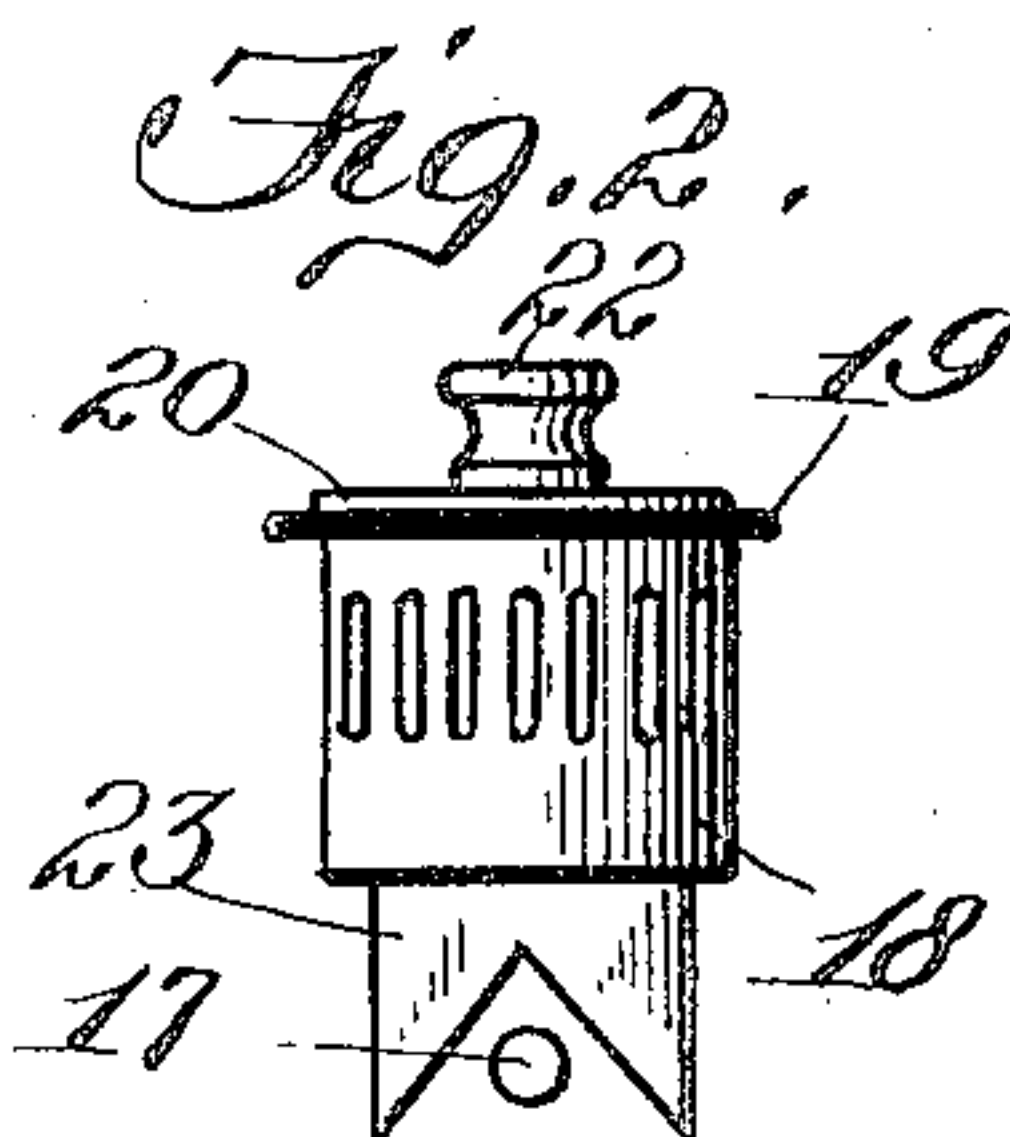


Fig. 2.

Witnesses
C. D. Hester
M. C. S. Waters

Inventor
Joseph W. Sharp Jr.
By
Lester C. Latham & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH W. SHARP, JR., OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
HAINES, JONES & CADBURY COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

BATH-TUB WASTE-FITTING.

No. 843,968.

Specification of Letters Patent.

Patented Feb. 12, 1907.

Application filed March 19, 1906. Serial No. 306,830.

To all whom it may concern:

Be it known that I, JOSEPH W. SHARP, JR., a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Bath-Tub Waste-Fittings, of which the following is a specification.

The present invention relates to bath-tub waste-fittings, and is designed particularly for use in connection with bath-tubs of the rolled-rim type, although adaptable to tubs other than the particular type referred to.

The object of the invention is to provide plug-operating means for the waste-pipe which will permit manipulation of the tub-plug without the necessity of plug-chains or similar devices now commonly used, the fitting and plug-operating means being preferably secured to and supported by the rolled rim of the tub, so as to admit of ready adjustment, the parts at the same time being closely and compactly assembled beneath or within the overhang of the rim of the tub and for the most part housed within the waste-pipe.

In the accompanying drawings I have shown one embodiment of my invention, and in said drawings Figure 1 is a sectional view through one end of the tub, showing the waste-pipe, its tub connections, and the plug-operating instrumentalities. Fig. 2 is a detail view of the plug for the bottom waste connection. Figs. 3 and 4 are detail views in elevation and section, respectively, of the operating-head for the plug-manipulating devices.

Referring to the drawings by numerals, like numbers indicating like parts in the several views, 1 denotes the tub, which is of usual or any desired construction and which has the rolled edge or rim 2. Conveniently located relative to the said tub 1, preferably at one end thereof, as is customary, is the waste-pipe having vertical limb 3, the upper horizontal limb 4 forming the overflow connection and the lower horizontal limb 5 forming the bottom connection. The vertical limb 3 is preferably joined to the elbows of the horizontal limbs 4 and 5 by slip-joints 6 and 7 to allow for variations in height, and

the horizontal limb 5 is also connected to its end fittings by similar slip-joints to provide for lateral adjustment.

Mounted upon the rolled rim 2 of the tub 1 is a supporting plate or scutcheon 8, which carries a fitting 9, which, as will be seen from Fig. 1, depends through a suitable opening bored in the tub-rim 2 and is firmly clamped in position by means of a clamping-washer 10 and nut 11, housed within and beneath the tub-rim, so that the fitting is in open and accessible position, where it may be readily placed and secured or removed and adjusted when desired. The head of the fitting 9 contains the actuating means for the plug-operating instrumentalities, said actuating means comprising a pivoted handle 12, having at its inner end within the fitting 9 a cranked disk 13, engaging a slotted head 14 at the upper end of a vertically-reciprocable plug-lifting rod 15, which extends downwardly through the fitting 9 into proximity with the upper end of the waste-pipe joint 4. The said waste-pipe joint 4 is drilled or bored at its upper end to receive a sleeve 16, which carries an L-shaped plug-operating rod 17, the horizontal limb of which traverses the horizontal limb of the waste-pipe and engages a fin depending from the plug. The said plug is made up of the apron 18, having the water-escape slots in the skirt thereof, the plug fitting the waste-opening in the bottom of the tub with a sliding fit, so as to insure a straight vertical lift of the plug and prevent tilting or jamming of the same. Surmounting the plug is a packing-washer 19, upon which is placed a clamping-washer 20, the parts being held together by the plug-stem 21 and cap-nut 22, which engages the screw-threaded upper end of the plug-stem 21, as clearly shown in Fig. 1. Depending from the plug-stem 21 is a fin 23, having a V-shaped centering-notch at its lower end, which is engaged by the horizontal limb of the plug-operating rod 17, so that when the rod is lifted it exerts a lifting action centrally of the plug. It will be seen that this arrangement of lifting-rod and the closely-fitting apron 18 insures a straight lift of the plug without danger of tilting the same and jamming it in its seat. Furthermore, the plug may be readily re-

removed from its seat for cleaning or for renewal of washers. The said sleeve 16 has adjustable connection with the rod 15, as shown, so as to permit ready adjustment of the plug-operating means to meet different requirements, and this adjustable connection, it will be noted, is so arranged as to be readily accessible, while at the same time it is compactly assembled and housed beneath and within the overhanging rim of the tub.

From the foregoing it will be seen that a very compact, convenient, and simple device for operating the tub-plug is provided in which the plug-operating parts are conveniently housed, the waste-pipe closed except for the small opening in its top for the traversing lifting-rod, in which the entire fitting is assembled within the overhang of the tub-rim, and which is particularly adapted to rolled-rim tubs having the usual standard waste-pipe without materially changing the construction or relation of the parts.

In operation the handle 12 will be thrown to its proper position and through its cranked disk 13 and the slotted head 14 will exert an upward pull on the lifting-rod 15 and the L-shaped plug-operating rod 17, with the result that the plug 19 will be raised vertically from its seat and allow the water to escape readily through the perforated apron with which said plug is provided. In order to prevent throwing over of the handle 12 and excessive movement of and undue strain on the rods 15 and 17, I provide the crank-disk 13 with a projection 20, which will strike the rod 15 when the crank-disk 13 has been rotated partly around, so as to prevent overthrowing of the crank-disk and raising the plug-operating rod 17 too high, which, if it occurred, would result in bending or straining the horizontal leg of the rod or jamming of the parts.

It will be obvious that the construction herein shown and described may be varied to some extent within the skill of the mechanic without departing from the spirit or principles of my invention, and as all such mechanical changes and expedients are clearly within the purview of my invention I do not limit myself to anything shown and described except so far as I am limited by the terms of the appended claims.

Having thus fully described my invention, what I claim is—

1. A waste-fitting for bath-tubs and the like, comprising a closed waste-pipe adapted to be removably attached to a tub-wall and having a vertical limb and two horizontal limbs connected, respectively, with bottom and overflow openings of the tub; a plug for said bottom opening; an L-shaped plug-lifting rod traversing the lower horizontal and vertical limbs of said waste-pipe and projecting through the closed top thereof; a rod-operating device mounted on the rim of the tub; and an adjustable connection between said operating device and said projecting lifting-rod, located between the tub-rim and the top of the waste-pipe in open and accessible position.

2. In combination with a rolled-rim tub; a waste-pipe lying within the overhang of the rim and having bottom and overflow connections with said tub; a bottom plug; an L-shaped plug-lifting rod traversing said waste-pipe and projecting from the top thereof; a rod-operating device mounted on the tub-rim and depending therethrough; and an adjustable connection between said device and said rod, located between the tub-rim and the top of the waste-pipe in open and accessible position.

3. In combination with a rolled-rim tub, a waste-pipe lying within the overhang of the rim and having bottom and overflow connections with said tub; a bottom plug; an L-shaped plug-lifting rod traversing said waste-pipe and projecting from the top thereof; a supporting plate or scutcheon mounted on the tub-rim; rod-operating instrumentalities secured on said scutcheon and depending through said rim; and an adjustable connection between said rod and said operating instrumentalities, located between the tub-rim and the top of the waste-pipe in open and accessible position.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH W. SHARP, JR.

Witnesses:

MORTIMER A. JONES,
ALFRED GRIER.