

No. 870,924.

PATENTED NOV. 12, 1907.

W. ATTLESEY.  
HEAD FOR SHOWER BATHS, &c.  
APPLICATION FILED MAY 14, 1906.

Fig. 1.

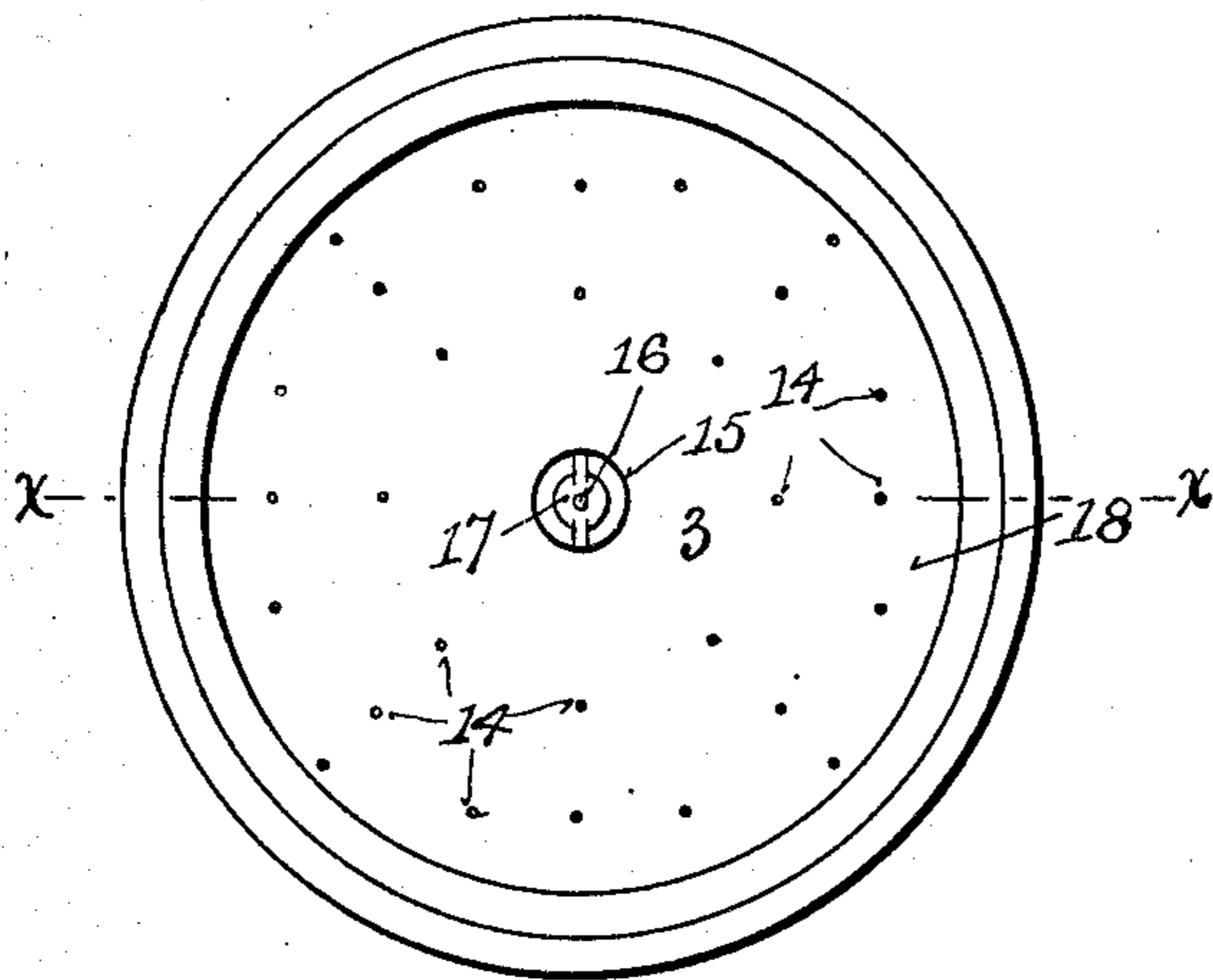


Fig. 2.

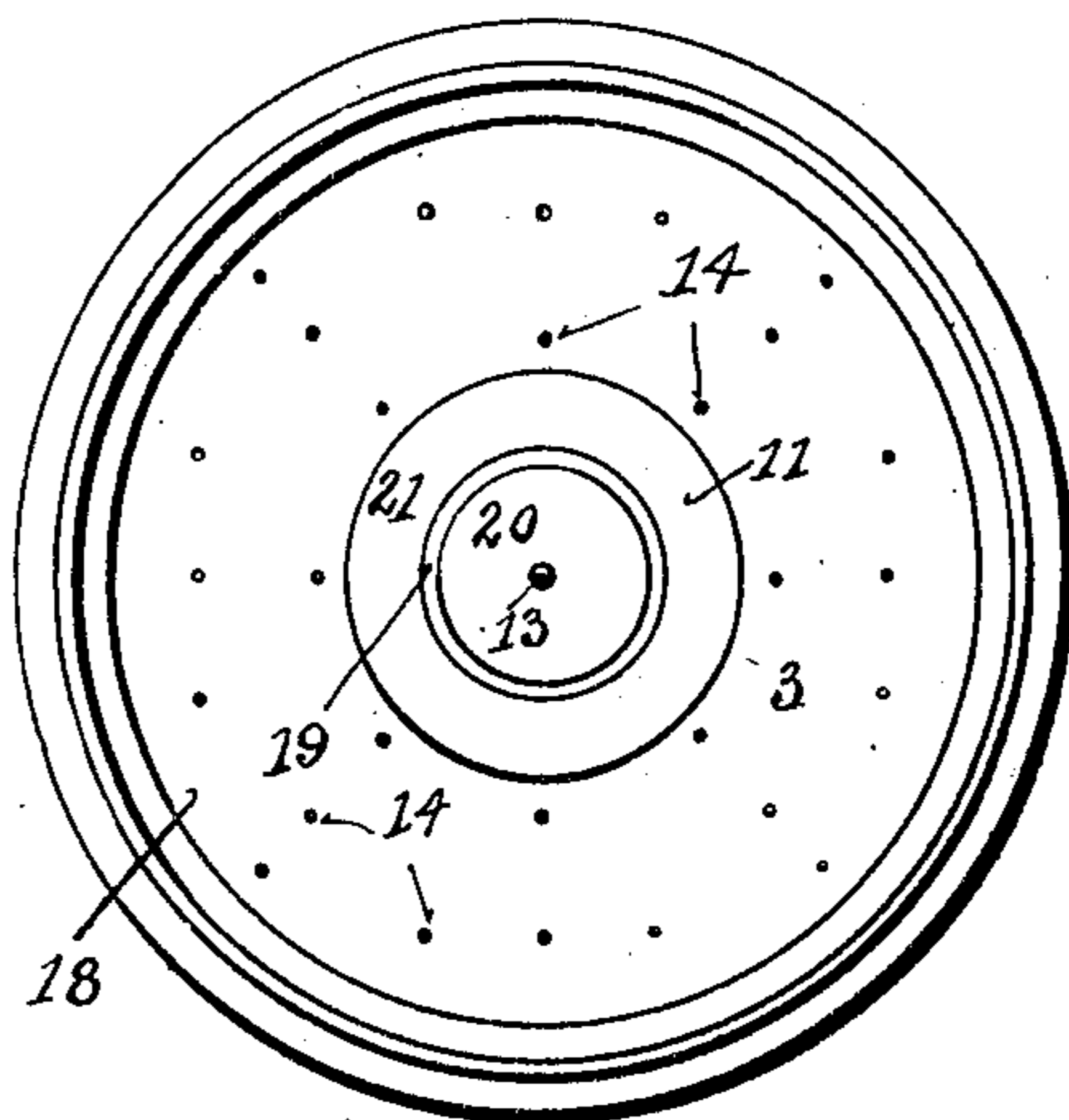


Fig. 3.

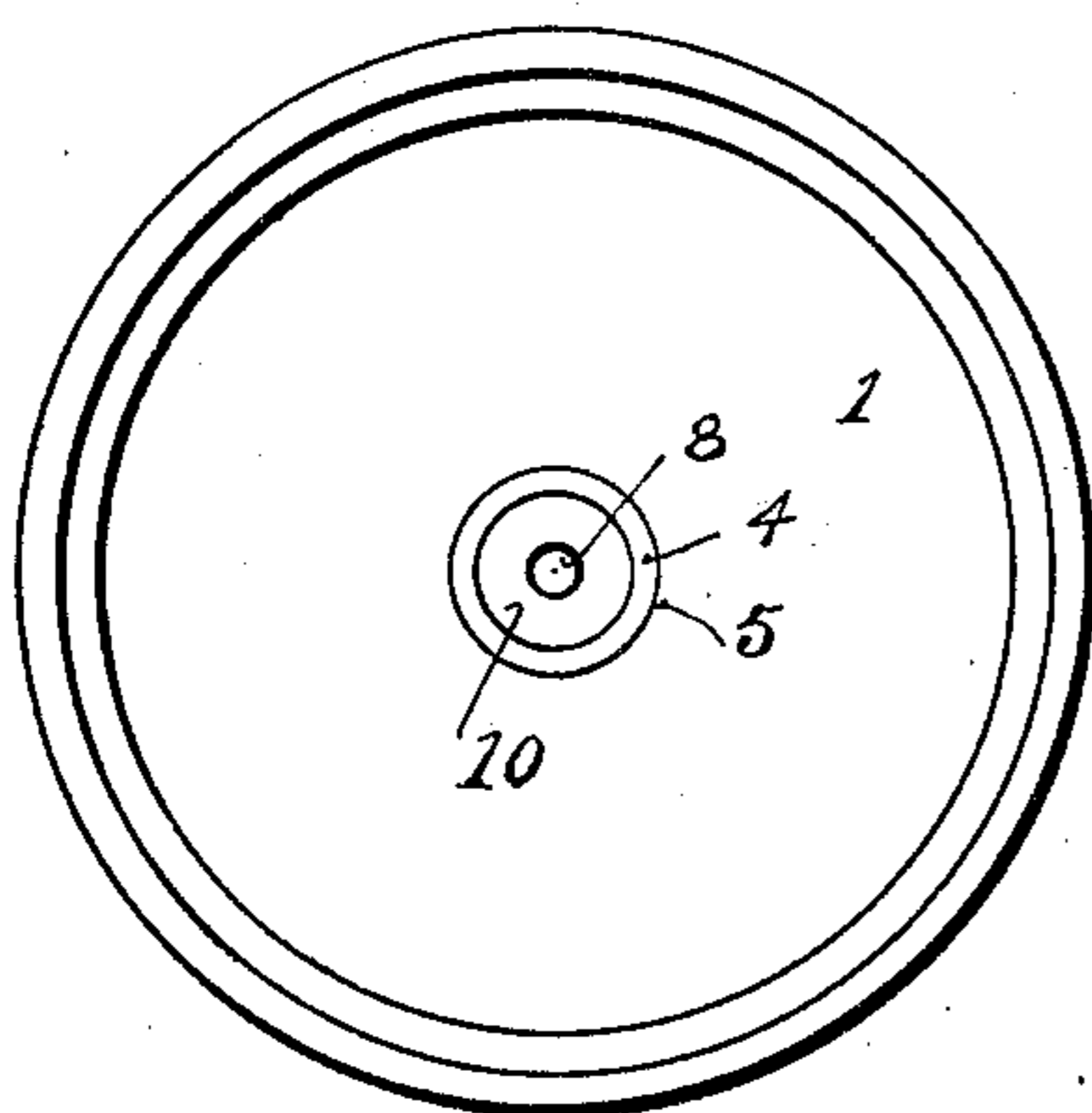
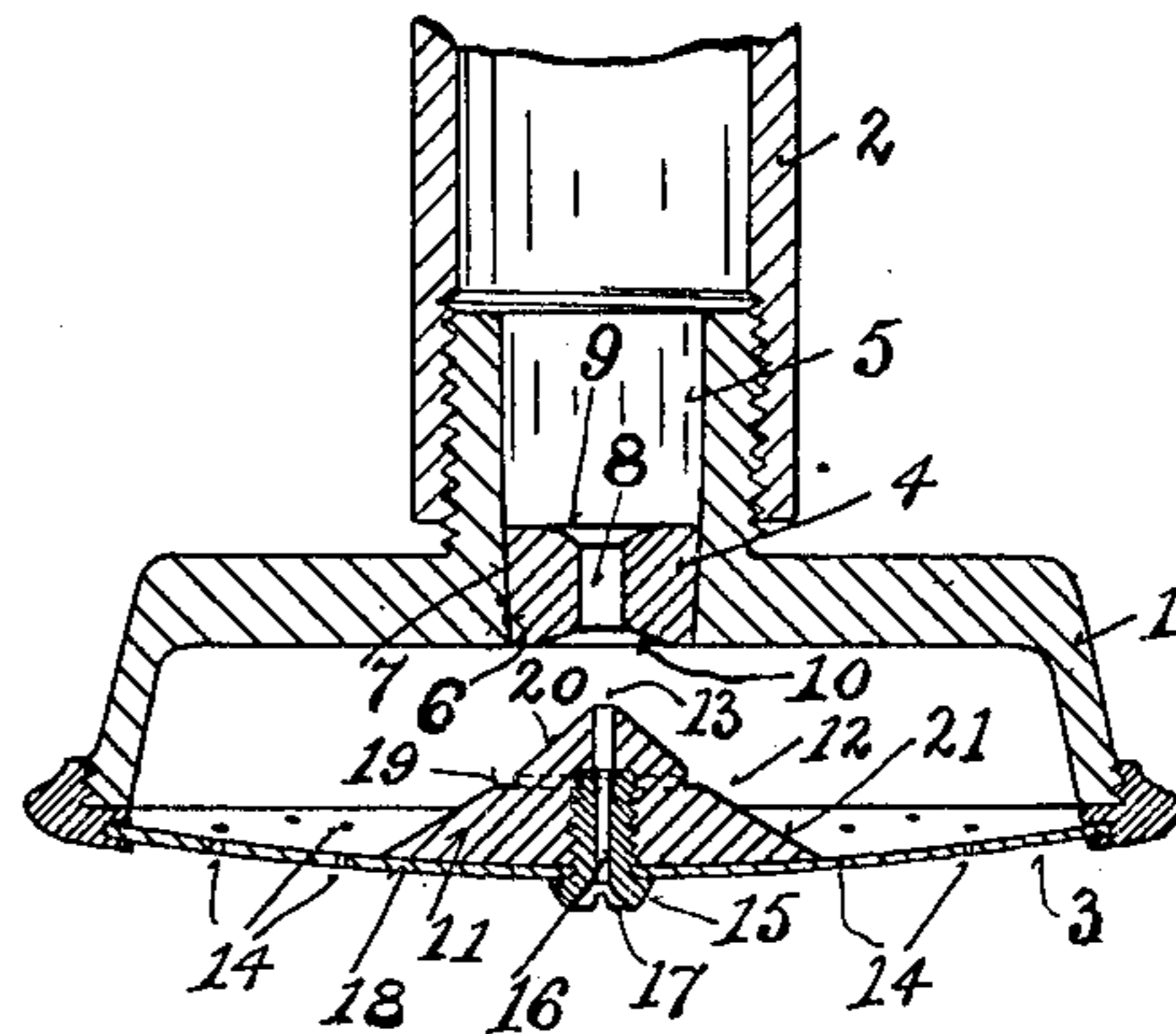


Fig. 4.



Witnesses:  
Homer Bradford.  
Cordelia O'Leary.

Inventor:  
William Attlessey,  
by A. D. Hubbs, His Attorney

# UNITED STATES PATENT OFFICE.

WILLIAM ATTLESEY, OF CINCINNATI, OHIO.

## HEAD FOR SHOWER-BATHS, &c.

No. 870,924.

Specification of Letters Patent.

Patented Nov. 12, 1907.

Application filed March 14, 1906. Serial No. 305,939.

*To all whom it may concern:*

Be it known that I, WILLIAM ATTLESEY, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Heads for Shower-Baths or the Like, of which the following is a specification.

My invention relates to that class of heads for shower baths or the like intended to emit the water in spray-form, and it is the object of my invention to provide a head of this character in which the spray is finely divided and projected in desired manner while economizing in the water employed. I accomplish this by reducing the size of the column of water entering the interior of the head and employing a deflector in the interior of the head for the water for directing the deflected water sidewardly so that the water may be distributed among the sidewardly disposed apertures in the head and permitted to emerge therefrom in a finely divided gentle spray; further in providing said deflector with a central aperture, in locating said aperture co-incident with the apex of said deflector, and in disposing said apex and aperture centrally with relation to the inflow-opening of the head, whereby the column of water projected through said inflow-opening is divided, part thereof being projected with force through said central aperture and part thereof deflected by said deflector toward said sidewardly disposed apertures in the cap for emerging from the latter in the form of a gentle spray; further in providing a detachable ingress-plug, and a detachable centrally disposed egress-plug, whereby the ingress or egress of water may be regulated for spraying various quantities of water within a given time without change of the head proper, or for accommodating the head for different pressures of water, and the invention will be further readily understood from the following description and claims, and from the drawing, in which latter:

Figure 1 is a plan view of my improved device. Fig. 2 is a bottom view of the cap. Fig. 3 is a plan view of the head with the cap removed; and, Fig. 4 is a central cross-section of my improved device on the line  $x-x$  of Fig. 1.

1 is the base which may be suitably secured to a supply pipe 2.

3 is the cap suitably secured to the base as by being screw-threaded thereto.

4 is a plug releasably fitted within the supply opening 5 of the base. This releasable fit is preferably obtained by tapering the outer wall of the plug slightly as shown at 6, the opening 5 having a similar tapered bore 7, the plug being rammed into the opening, making a close fit but permitting release of the plug. This

plug has a central aperture 8, and in different plugs this aperture may be of different sizes, so that a head of different capacity may be readily obtained by substituting a different releasable plug. The plug preferably has an outer tapered recess 9 and an inner tapered recess 10 for preventing counter-currents in the water, *i. e.* permitting smooth flow of water into the head.

Opposite the plug there is a deflector 11. This deflector is secured to the cap, or if desired may be part of the cap. It is shown cone-shaped. It has a sloping wall 12. The wall of the recess 10 and the wall 12 of the deflector 11 slope in the same general directions, the said walls being spaced apart in the interior of the head, this construction permitting a ready and smooth flow of water.

13 is a central aperture in the deflector. The axis of this last-named aperture coincides with the axis of the aperture 8. When the water is projected through the aperture 8 it strikes the deflector and, the aperture 13 being in line therewith, part of the stream is projected with force through said last-named aperture, thereby forming a central stream ejected from the shower head with force, while the balance of the stream passing through the aperture 8 is deflected sidewardly by the deflector toward the sidewardly disposed apertures 14.

In order to regulate the size of the stream projected through the aperture 13, I provide a releasable plug 15 having a central aperture 16 merging into a flaring opening 17 at the exterior end of said plug. Plugs having apertures of other sizes may be used for regulating the size of the central stream ejected from the head, the flaring opening 17 preventing a diffusion of said stream. I prefer to make the plug 15 in the shape of a screw having a central longitudinal bore, using the screw for the purpose of fastening the deflector to the perforated plate 18 of the cap. As will be noted from Fig. 4, the central bore of the screw is smaller than the central aperture 13. Using a screw having a smaller or larger bore will vary the size of the central egress-stream from the head. I prefer to interrupt the slope of the wall of the deflector, as see the groove 19 for interrupting the flow of the stream along said deflector toward the cap. When the water reaches the groove it is projected sidewardly, thereby diffusing the water throughout the interior of the head and causing the water to be ejected from the sidewardly disposed apertures in the head in a gentle spray. The force of the water is thereby broken and equalized throughout the head, giving a gentle spray and economizing in the water employed. For aiding in this diffusion of the water throughout the interior of the head, I prefer to

make the apex end of the deflector with a more abrupt slope, as see the slope 20, than the base end of the deflector, as see slope 21.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. A head for shower baths or the like having an ingress-opening and comprising a deflector whose axis is coincident with the axis of said ingress-opening and provided with an egress-opening in line with said ingress-opening, said head also having side egress-apertures, said deflector being opposite said ingress-opening and having sloping sides for directing the flow of water toward said side egress-apertures, and said sloping sides having an annular interruption therein, substantially as described.
2. In a head for shower baths or the like, the combination with a base, a removable plug having an ingress-opening therein and arranged for substitution of other plugs having different sized ingress-openings, a cap having a deflector provided with sloping sides, the said cap having egress-openings between said deflector and outer edge of the cap, substantially as described.
3. In a head for shower baths or the like, the combination with a base, a removable plug having an ingress-opening therein and arranged for substitution of other plugs having different sized ingress-openings, a cap having a deflector provided with sloping sides, the said cap having egress openings between said deflector and outer edge of the cap, said deflector having an aperture, and a releasable egress plug having an aperture and arranged for substitution of other plugs having different sized aper-

tures, the said apertures in said egress-plug, deflector and ingress-plug having coincident longitudinal axes, substantially as described.

4. In a head for shower baths or the like, the combination of a base, a removable plug therefor having an ingress-opening merging into a recess at each end of said ingress opening, said recesses having outwardly flaring walls, said plug being arranged for substitution of other plugs having different sized ingress-openings, a cap for said base having sidewardly disposed egress-apertures, and an interior deflector for said cap having sloping sides and an egress-opening opposite said ingress-opening, said ingress-opening and egress-opening being spaced apart in the interior of said head, substantially as described.

5. In a head for shower baths or the like, the combination of a base, a removable plug therefor having an ingress-opening merging into a recess having an annular sloping wall in the interior of said head, a cap for said base having sidewardly disposed egress-apertures, an interior deflector for said cap having a central egress-opening, said deflector and egress-opening being opposite said recess and ingress-opening and spaced from the latter in the interior of said head, said sloping wall having an annular interruption, substantially as described.

In testimony whereof I have subscribed my name hereto in the presence of two subscribing witnesses.

WILLIAM ATTLESEY.

Witnesses:

CORDELIA O'HEARN,  
A. F. HERBSLEB.