

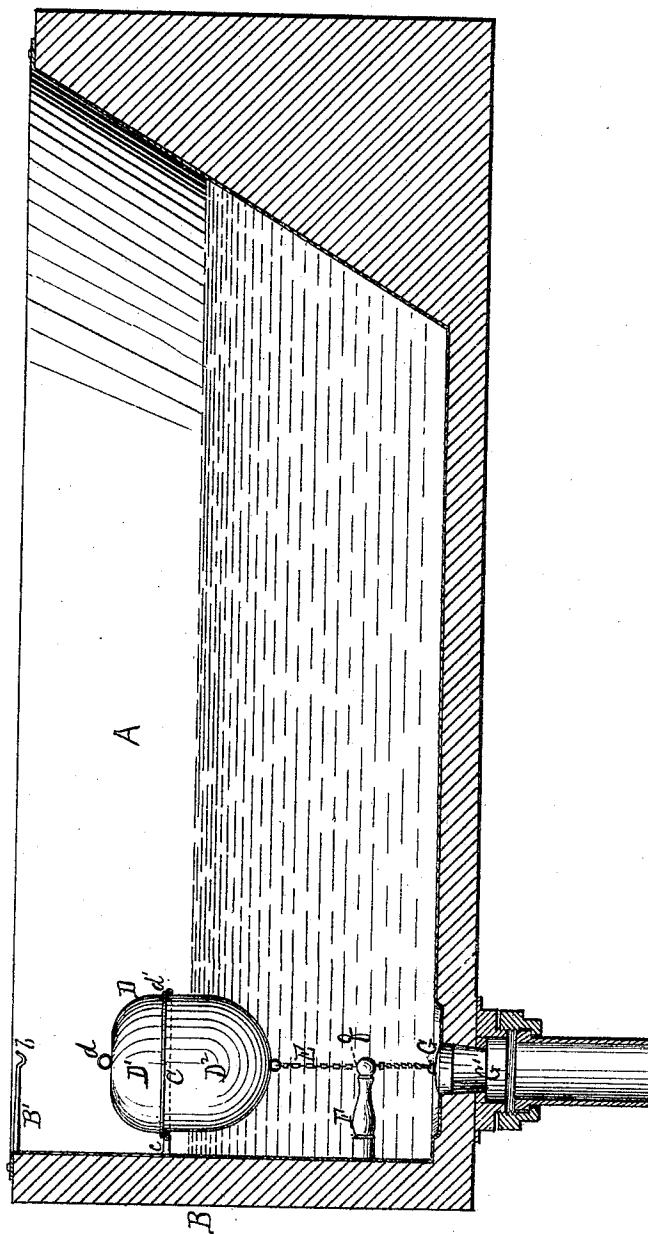
C. A. BLESSING.

BATH-TUBS.

No. 172,600.

Patented Jan. 25, 1876.

Fig. 1.



Witnesses:
Edwin James.
John O. Jones.

Inventor:
Charles A. Blessing.
per J. E. J. Holmeads
Attorney.

UNITED STATES PATENT OFFICE.

CHARLES A. BLESSING, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN BATH-TUBS.

Specification forming part of Letters Patent No. 172,600, dated January 25, 1876; application filed May 5, 1875.

To all whom it may concern:

Be it known that I, CHARLES A. BLESSING, of the city of Philadelphia and State of Pennsylvania, have invented certain Improvements in Bath-Tubs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing and the letters of reference marked thereon, making part of this specification, in which—

Figure 1 represents a longitudinal sectional view of my improvement.

My invention relates to that class of bath-tubs in which the discharge-orifice is designed to perform the function both of the overflow and discharge.

The nature of my invention consists in securing to the foot-piece of the bath-tub a hollow cylindrical plate or bearing, in which rests and operates a hollow egg-shaped ball. To the bottom of this ball is attached a chain or cord, to which is fastened the plug which fits in the discharge-orifice. The great advantage of this arrangement is that it furnishes an automatic device simple in construction, by means of which the overflow may be provided for, while it not only saves the expense of employing an extra pipe to carry off the surface-water, but also the expense of connecting this extra pipe with the discharge, and the whole arrangement can be located in the bath-tub without in any manner interfering with the comfort or convenience of the person bathing.

The construction and operation of my invention are as follows: A is the bath-tub, which is constructed in the usual manner. To the foot-piece B is attached, by means of the shank *c*, the hollow cylindrical plate or bearing C. Preferably this plate may be cast and the shank *c* have screw-threads cut thereon. The plate will then be attached to the foot-piece B by screwing the shank *c* into holes cut therein. This plate C is secured to the foot-piece B at the same distance from the top of the bath-tub as is now usually located the overflow-orifice, and extends sufficiently far into the bath-tub to bring the center of the plate or bearing on a true vertical line with the center of the discharge-orifice G'. This plate C, as shown in the drawing, is represented as being permanently secured to the foot-piece B; but instead the shank *c* may be

made to slide up and down in a groove formed on or in the foot-piece and fastened at any desired point by means of a set-screw, so that the plate and ball may be raised or lowered, as occasion may require, and the quantity of water to be held in the bath-tub may be increased or diminished. When this is done, of course the cord or chain E is either lengthened or shortened. D is a hollow egg-shaped sphere or ball, constructed out of any suitable material that will readily float in water, and having its upper section D¹ dome-shaped and its lower section D² elongated. The object of elongating the section D² of the ball is that no matter how great the pressure of the excess of water may be when the ball is raised this elongated section will prevent it from being thrown out of the hollow plate or bearing C. This ball D is formed with a flange, *d'*, extending around the same, and connecting the two sections D¹ D², said flange, when the discharge-orifice is closed, resting on the plate or bearing C. To the center of the bottom of the section D² of the ball D is attached one end of a chain or cord, E, the other end being fastened to the plug G that closes the discharge-opening G'. F is a guide-rod, which is attached to the foot-piece B below the plate or bearing C, and is formed with an opening, *f*, at its outer end, through which passes the chain E. The main object of this guide-rod F is to prevent the chain from being thrown so far out of a true vertical line, should the feet of the bather come in contact therewith, as to prevent the plug G from falling into its seat in the discharge-orifice G', when the excess of water passes out and the ball has fallen into its place in the plate C. Should the chain not be interfered with in this manner the pressure of the water would be sufficient to keep it in its proper position, and the guide-rod could therefore be dispensed with. B' is a rod, attached to the upper section of the foot-piece, and is formed with a small hook, *b*, at its outer end, upon which the ball D and its attachments are suspended by means of the loop *d*, when it is desired to raise the plug G to let the water out of the tub. G' is the discharge-orifice, which is located in the bottom of the tub and near to the foot-piece B, so that when the water is discharged none shall

collect and remain between the opening G' and the foot-piece, as is now usually the case.

The operation is as follows: After a sufficient amount of water is let flow into the bath-tub, if the water is still allowed to run, when the pressure of the water is sufficient to overcome the weight of the plug and ball, the ball D will be caused to raise, and by means of the chain E to lift up the plug G, thus opening the discharge-orifice G'. This orifice will continue opened until the excess of water is reduced, when the ball will fall into its place in the plate or bearing C, causing the plug G to rest in its seat in the orifice G'.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

In a bath-tub, an egg-shaped ball, D, plate C, chain E, and plug G, with or without the guide-rod F, the whole constructed and arranged to operate substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

C. A. BLESSING.

Witnesses:

EDWIN JAMES,

E. J. MIDDLETON, Jr.