J. W. SHARP, Jr. & A. E. BACON.

BATH TRAP.

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1,118,955. Patented Dec. 1, 1914.

Fig. 1.

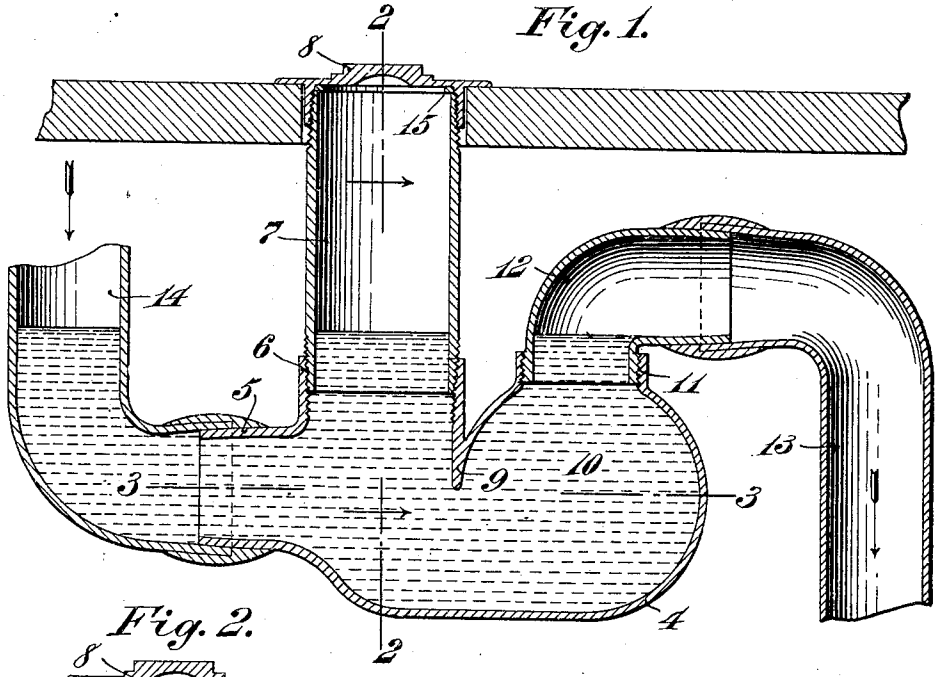


Fig. 2.

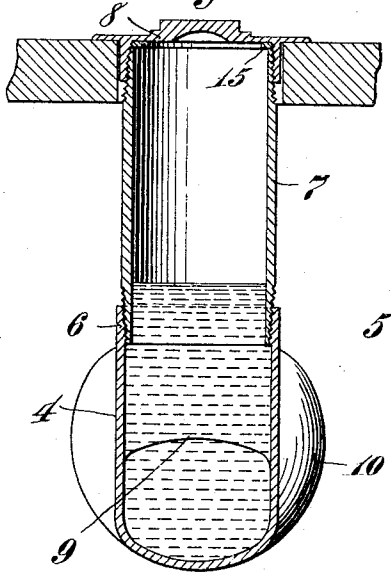
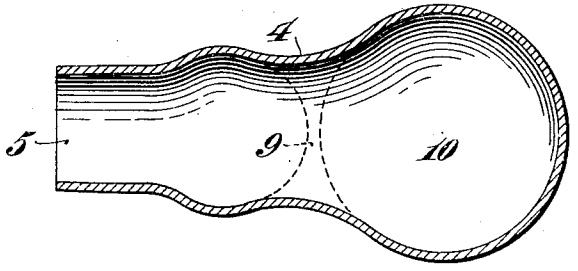


Fig. 3.



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BATH-TRAP.

1,118,955. Specification of Letters Patent. Patented Dec. 1, 1914.

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To all whom it may concern:

Be it known that we, JOSEPH W. SHARP, Jr., and ALBERT E. BACON, citizens of the United States, residents, respectively, of Berwyn, county of Chester, State of Pennsylvania, and Germantown, county of Philadelphia, State of Pennsylvania, have invented a new and useful Bath-Trap, of which the following is a specification.

Our invention relates to improvements in traps.

The object of the invention is to provide an improved trap especially adapted for use in connection with bath tubs, which will insure an efficient and continuous seal between the waste pipe and the tub and the floor opening of the clean out.

The invention also comprises an enlarged reservoir adjacent the outlet nozzle of the trap, of an improved formation and adapted to insure the maintenance of the seal between the waste pipe and the tub and clean out in the event of siphonage.

Other features of our invention are the formation of the trap so that it requires a minimum of space beneath the floor, a threaded elbow outlet nozzle, and a detachable nipple in connection with the clean out, adapted either to permit the use of nipples of varying length for varying floor levels or the adjustment of the threaded outlet nozzle.

Referring to the drawings:—Figure 1 is a central longitudinal vertical section. Fig. 2 is a vertical section on line 2—2 of Fig. 1. Fig. 3 is a horizontal section on line 3—3 of Fig. 1.

Similar numerals refer to similar parts throughout the several views.

The main casting or body 4 is provided with the following nozzles or openings; the nozzle 5, which is adapted to connect with a drain pipe 14 of the bath tub; the nozzle or opening 6 for the cleanout, to which nipple 7 is disengageably connected, having at the top and on the floor level the cap 8; and the nozzle or opening 11 in which is threaded the nozzle 12, which is adapted to be connected with the waste pipe 13. To the right of opening 6 is a downwardly extending projection or curtain 9 and to the right of this curtain is the comparatively large spherical reservoir 10, from the top of which extends the threaded nozzle 12 above referred to.

In the operation of our improved trap the water from the tub rises in nipple 7 to the level of the water in nozzle 12. When the flow from the tub has ceased a body of water, normally just above the threaded connections at outlet 11 and opening 6, will remain in the device, as shown in Fig. 1. This forms an efficient seal between waste pipe 13 and the tub and the floor opening of the cleanout, and, at the same time, submerges the screw joints at openings 6 and 11.

If, for any reason during the flow of water from the tub, siphonage should occur, the breaking of the seal between reservoir 10 and the chambers to the left of curtain 9 is effectually prevented by the construction of our device. That is to say, the dimensions and formation of reservoir 10 relative to the dimensions and formation of the other parts of the trap and to the distance between the lower end of curtain 9 and the bottom wall of the trap, are such that when air finally passes beneath curtain or apron 9 and reaches opening 11 to break the siphon, a sufficient body of water will fall back to maintain the seal between waste pipe 13 and the cleanout and drain pipe.

The threaded elbow nozzle 12 is adapted to permit the connection between the trap and waste pipe 13 to be made from any one of a number of positions of the trap relative to the waste pipe, thus aiding in the location of the trap in cramped spaces beneath the floor. In attaching said nozzle to the main casting 4, nipple 7 may be detached from the casting to permit the nozzle 12 to be turned above opening 6, when the nipple may be again screwed into opening 6. Another purpose of having nipple 7 threaded into opening 6 is to permit the interchangeability of nipples of different lengths to suit the varying floor levels.

The cap 8 has a straight thread and is provided with the washer 15 for engagement with the top of nipple 7. The lower end of nipple 7 has a tapered thread engagement in opening 6 of body 4. It is also to be noted that the greater extension of main body or casting 4 is horizontal so that a minimum amount of space beneath the floor is required and that the formation and po-

sition of cleanout nozzle 6 relatively to the other parts of the trap, is such as to permit the ready cleaning of the trap in the event of a stoppage in any part of the same.

What we claim is:—

1. A horizontally disposed bath trap, comprising a single casting having a horizontally extending base parallel with the longitudinal axis of the casting, and provided at one end in the space comprised between the top of the trap and said base with an unobstructed spherical chamber of relatively large dimensions having a discharge opening at the top and, at one side of said chamber, with a relatively short apron forming with the base a restricted inlet to said chamber, the trap provided at its other end with a restricted inlet portion slightly above the plane of said base, and in the top of the casting to the inlet side of the spherical chamber with a cleanout opening.

2. A horizontally disposed bath trap, comprising a single casting having a horizontally extending base parallel with the longitudinal axis of the casting, and provided at one end, at the bottom of the trap, with an unobstructed spherical chamber of relatively large dimensions having a discharge nozzle at the top, at the other end with an inlet nozzle above the plane of the horizontally extending base and below the plane of the top of the spherical chamber, between the inlet and discharge nozzles with a cleanout nozzle projecting upwardly from the top of the casting, and between cleanout and spherical chamber with a relatively short depending curtain.

3. A horizontally disposed bath trap comprising an oblong body having a horizontally extending base parallel with the longitudinal axis of said body and provided at one end with a relatively large spherical chamber formed in part by said base and having a discharge opening at the top, at the other end with a restricted inlet portion substantially midway between the plane of the top of the spherical chamber and the plane of the horizontally extending base, immediately to the spherical chamber side of the restricted inlet portion and above one end of said horizontally extending base with an enlarged cleanout portion, smaller in cross-section than the spherical chamber, and between cleanout portion and spherical chamber with a depending wall terminating above the plane of the bottom of the restricted inlet portion.

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Witnesses:
MAE HOFMANN,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."