June 22, 1926.

1,590,121

H. B. PITCHER

SHOWER BATH

Filed March 28, 1924

Fig. 1.

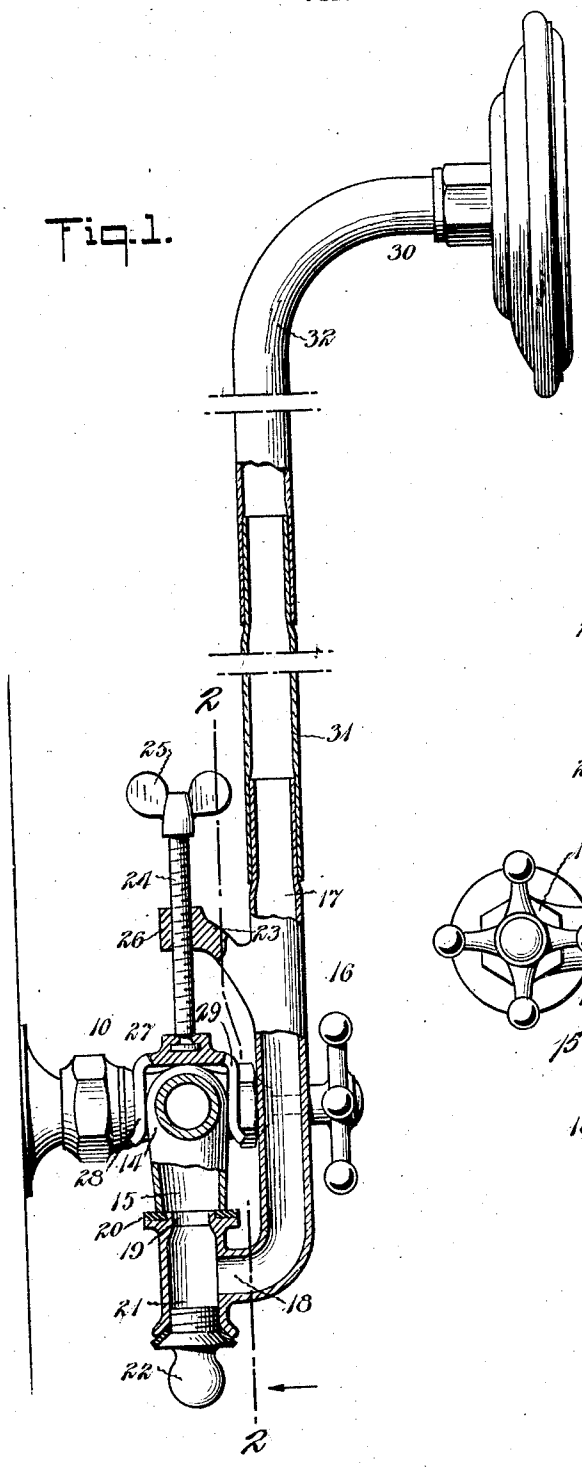
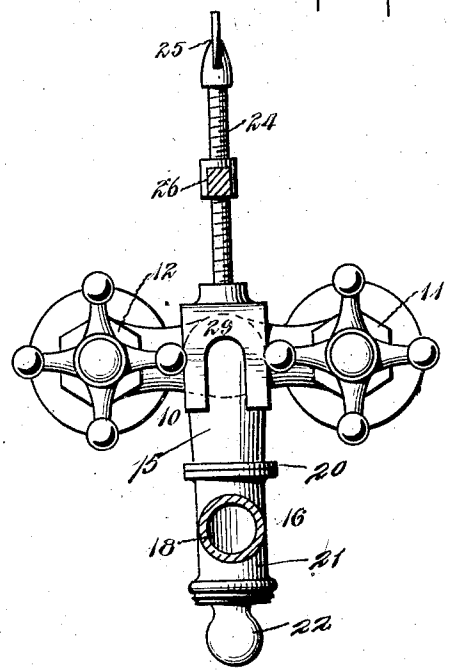


Fig. 2.



INVENTOR
Hugh B. Pitcher
BY
Warren S. Orton
ATTORNEY

Patented June 22, 1926. 1,590,121

UNITED STATES PATENT OFFICE.

HUGH B. PITCHER, OF BOONTON, NEW JERSEY.

SHOWER BATH.

Application filed March 28, 1924. Serial No. 702,494.

The invention relates in general to a shower bath of the curtainless type and particularly relates to a portable base supported shower bath of the type which is designed to be demountably attached to the usual bath tub fixtures without the use of tools.

In such devices heretofore known, it has been the usual practice to secure the base of the shower bath to the tub fixtures by means of hanging U-hooks, the lower ends of which were engaged by wing-nuts which were screwed into position to cause the hooks to draw the attachment into engagement with the fixture. It was difficult to attain access to these nuts and such fastening means did not lend themselves readily to a quick demounting of the shower bath from the tub for it required the manipulation of four screws underneath the attachment.

Further, the known forms of attachments comprised a multiplicity of parts which were very apt to become lost, and from a commercial standpoint had to be made of rather weak and easily bendable construction and in general did not provide a form of shower bath sufficiently rugged to withstand rough usage.

Accordingly, one of the objects of the invention is to provide a cheap form of shower bath which will have a pleasing and apparently expensive appearance. This object is attained first by the use of an improved form of base for the shower bath and which due to its inclusion of elements for securing the bath as a whole will be referred to hereinafter as a hold-fast, and second by an improved form of upstanding conduit leading to the usual shower heads. Referring to the first feature the invention contemplates the providing of a hold-fast for clamping the shower bath securely to the bath tub fixture and which will be characterized by minimizing of movable parts, the securing of the parts in the unit in such way that losses are minimized and which will at the same time provide a structure sufficiently rugged to withstand the rough usage to which such devices are liable to be subjected when frequently mounted and demounted from their operative position on different forms of tubs.

Referring specifically to the upright conduit feature it is noted that in shower baths now in general use, it was believed that the joints fastening the separable parts had to be threaded and otherwise had to follow conventional water-pipe practice in order to insure against leakage. It has been found that threaded and packed connections are not necessary and the present disclosure features a sectional form of shower bath which can be fabricated to any desired height and the parts of which can be readily removed and demounted without necessity of involved screwing operations.

Accordingly, the invention features the providing of an upright water conduit formed of demountable and interchangeable sections which are connected simply by telescoping an end of one section into a receiving end of another section.

Incidental to this general object, further desideratum of the invention are to provide in a commercially perfected type of such devices a construction, which combines strength with lightness, which does not warp or develop leaks with the alternate passage of hot and cold water therethrough, and which may be constructed economically with the least possible amount of refined machinery parts and which as a matter of fact, may be formed almost entirely of castings, pressings and drawn tubing.

Various other objects and advantages of the invention will be in part obvious from an inspection of the accompanying drawings and in part will be more fully set forth in the following particular description of one form of mechanism embodying my invention, and the invention also consists in certain new and novel features of construction and combination of parts hereinafter set forth and claimed.

In the drawings, Figure 1 is a view in side elevation of a bath tub fitting, with parts broken away, and with a preferred embodiment of the invention positioned thereon and shown partially in axial section, and

Figure 2 is a vertical sectional view taken on the line 2—2 looking in the direction indicated by the arrow.

In the drawings there is shown a bath tub fixture 10 of conventional design provided with the usual valve controlled hot-water faucet 11, and cold-water faucet 12, both leading to a mixing chamber 13 from which depends an outlet nozzle 15 as is usual with the illustrated type of bath room fittings.

The shower bath selected to disclose the

invention is of the base supported type and includes a base 16 in the form of a J-shaped casting. The casting comprises a vertically extending tube 17, the lower end of which extends laterally to form a T 18, the upper end 19 of the head of which is designed to fit the nozzle 15 with a gasket 20 interposed therebetween as is usual in such connections. The lower end of the T is provided with an outlet 21 to convey the water therefrom directly into the bath tub and is provided with a readily removable closure 22.

The casting 16 is provided above the T with an integral bracket 23 which extends laterally from the upstanding tube 17 and is spaced from the T a distance sufficient to overhang the fixture 10. The outer end of the bracket 23 is enlarged vertically and is provided with a vertically extending aperture through which is threaded a binding screw 24. It is a feature of this disclosure that ready access be provided to this screw in order to facilitate the quick mounting and demounting of the casting and for this purpose the upper end of the screw is provided with turning wings 25. These wings are positioned in spaced relation to the associated parts of the shower bath and from the tub and preferably extend above the same so that the screw may be easily turned through the nut 26 and thus forced into position to clamp the fittitng 10 between the jaws provided by the T and screw. This nut is made relatively long so as to obtain a long bearing for the screw as it passes through the bracket and this long connection tends to minimize distortion of the screw when the shower bath is in use.

An inverted U-shaped saddle 27 is rotatably mounted on the lower end of the screw and includes depending arms 28 and 29 which straddle the central portion of the fixture 10 and assist in preventing any tendency of the shower bath to rock about its connection with the nozzle 15.

It may be noted from the construction thus described that the base of the shower bath comprises in effect but three parts, a casting, a screw and a saddle, but the saddle may be omitted thus forming the base of the shower bath solely of two clamping parts which can not be separated. The shower bath herein disclosed is marketed as an article comprising several tubular sectional parts including the base hereinbefore described, a head 30 of conventional form and one or more lengths of connecting tubing, one of which is shown at 31. The upright conduit formed of the tube 17, tube 31 and L 32 forming part of the head 30 distinguishes from similar forms of upright water-conduits in that it is of larger diameter than such constructions now known and is formed of extremely thin gage tubing. In practice this tubing may be so thin that it is springy and yet possesses sufficient strength to meet service requirements.

Instead of the usual threaded and other conventional forms of water-tight joints between the tubing heretofore used in sectional shower baths, the present disclosure features a telescoping of the end of one of the sections into the receiving end of the next adjacent section.

While it is within the scope of this disclosure to draw the tube ends to a tapered fit the present disclosure illustrates the drawing of the tubes at one end of each section to a slightly reduced external diameter, but uniform in diameter from end to end. It is understood that the showing of this reduction is much exaggerated in the drawing and in practice it has been found sufficient to slightly swedge the telescoping end of each joint so that it will simply have a snug fit in the receiving end of each adjacent section. It has been found that if one tube telescopes the other for a material distance no leakage occurs when the shower is in operation even though there is a material pressure on the water supply as is the case of city pressure in some communities. In general, it has been found that when the telescoped distance is greater than the diameter of the telescoped parts no leakage occurs. While the disclosure features a snug water-tight fit it is understood that this fit is not so snug that the parts can not be separated by a manually directed pull separating the parts in their longitudinal direction.

In operation the base casting with or without the other sectional parts is disposed in position on the faucet, the screw is advanced towards the faucet and the saddle is disposed in position straddling the fixture after which the screw is tightened up securely to hold the casting in the upright position shown in Figure 1. If a low shower is desired, the crook neck 32 of the head 30 is telescoped into direct engagement with the tube 16 of the casting and is rotated about the axis of the tube so as to point the head in the direction in which the water stream is to be projected.

Should a high shower be desired, one or more of the intermediate tubes 31 are disposed between the base and head 30 and in telescoped engagement with each other and with the base and head as previously suggested.

By means of a device of the character described it is possible to provide a hold-fast which will be in the form of a single casting and which will feature the quick mounting of a shower bath on tubs having different forms of water fixtures. The shower bath can be readily adjusted for different heights and it is within the scope of the disclosure to provide different forms of replaceable heads and other forms of discharge nozzles.

The device can be easily demounted and as opposite ends of the tubes are exposed the several parts can be easily cleaned and dried. The device as a whole can be easily collapsed into a small place and arranged to fit compactly in a small hand satchel.

Having thus described my invention, I claim:

1. In a shower bath, a holdfast for clamping the same to a bath tub faucet and comprising a single casting including an upstanding tube with its upper end reduced to provide a telescopic fit in a superposed tubular section, a T forming a continuation of the lower end of the upstanding tube, the upper end of the head of said T fashioned to fit a depending outlet of the faucet and constituting the fixed element of a clamping device, and the lower end of the head opened to discharge into the tub a bracket extending rigidly and laterally from the upstanding tube above the T, and below the reduced end, the outer end of the bracket provided with a threaded aperture forming a long bearing nut, a screw threaded through the nut and provided at its upper end with wings positioned relatively close to the tube and provided at its lower end with a saddle for bearing down on the tub faucet and thus forming the movable element of the clamping device.

2. In a shower bath, a holdfast for clamping the same to the bath tub faucet and comprising a single casting including an upstanding tube, a T forming a continuation of the lower end of the upstanding tube, the upper end of the head of said T positioned to fit a depending outlet of the faucet and constituting the fixed element of a clamping device, a bracket extending rigidly and laterally from the upstanding tube above the T, and below the reduced end, the outer end of the bracket provided with a threaded aperture forming a long bearing nut, a screw threaded through the nut and provided at its lower end with a saddle for bearing down on the tub faucet and thus forming the movable element of the clamping device, said saddle being of inverted U-shape rotatably mounted at the lower end of the screw to straddle the fixture and assist in preventing the shower bath from rocking about its connection with the faucet.

3. In a shower bath, a holdfast for clamping the same to the bath tub faucet and comprising an upstanding tube adapted to be positioned in fluid communication with the faucet, an extension for overlapping the faucet, a screw threaded through the extension and an inverted U-shaped saddle rotatably carried by the lower end of the screw and adapted to straddle the faucet and to be forced down by the screw into bearing engagement with the faucet.

Signed at New York city in the county of New York and State of New York this 14th day of March, A. D. 1924.

HUGH B. PITCHER.