Sept. 1, 1931. H. A. MULLETT ET AL 1,821,229

COMPARTMENT SHOWER BATH

Filed Oct. 20, 1930 2 Sheets-Sheet 1

Fig. 1.

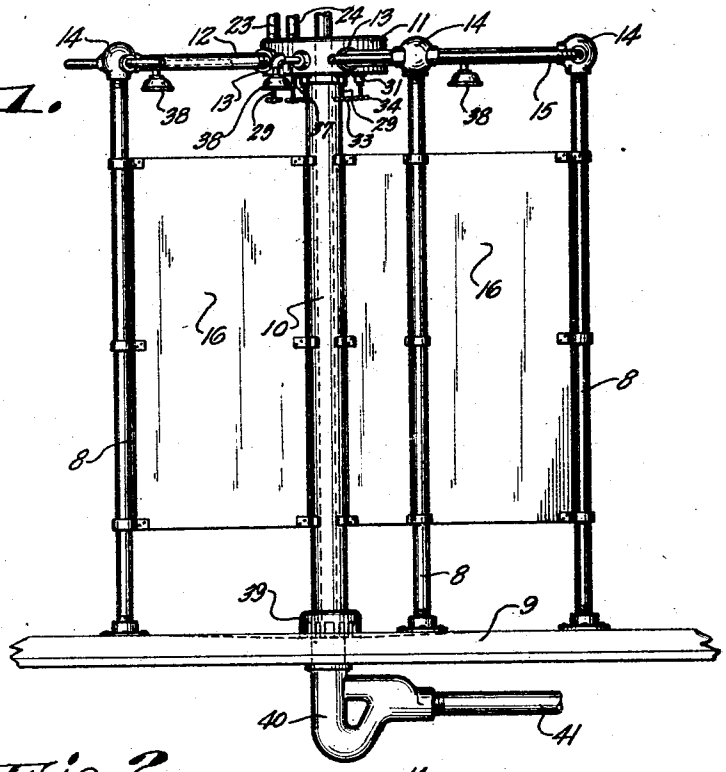
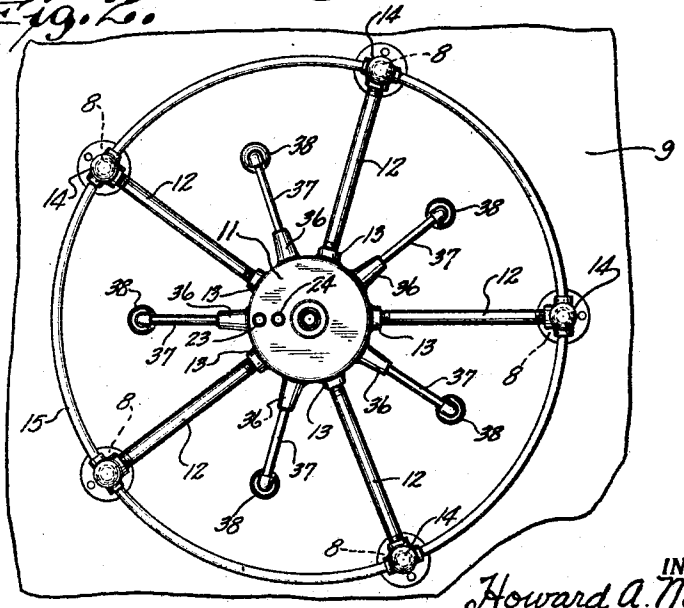


Fig. 2.



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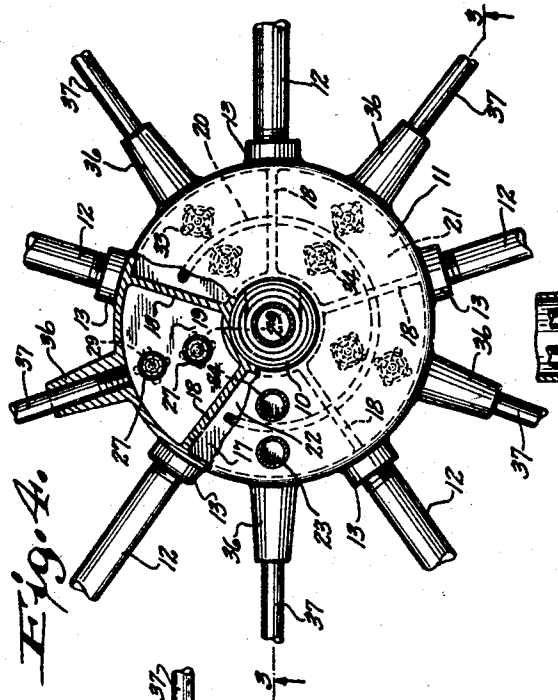


Fig. 4.

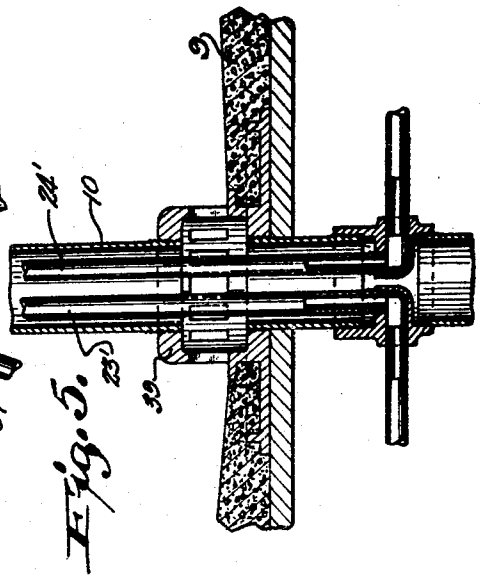


Fig. 5.

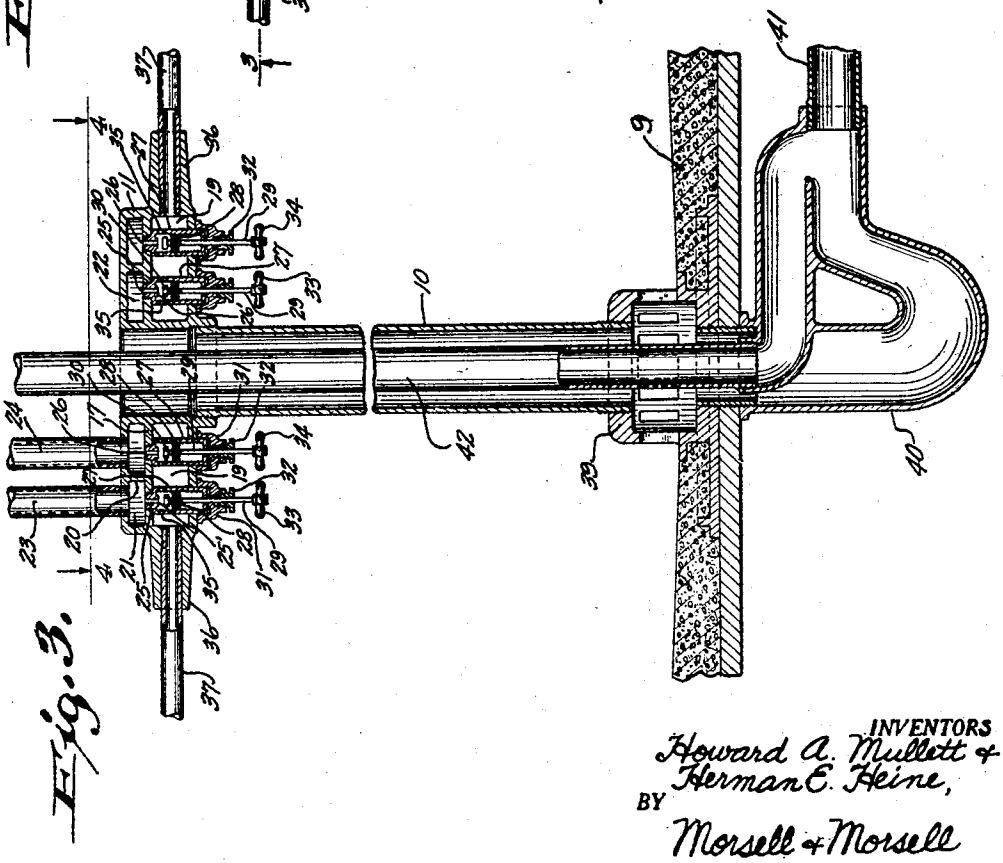


Fig. 3.

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UNITED STATES PATENT OFFICE

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COMPARTMENT SHOWER BATH

Application filed October 20, 1930. Serial No. 489,809.

This invention relates to improvements in compartment shower baths.

The present invention constitutes a modification of the subject matter of U. S. Patent No. 1,747,838, dated February 18th, 1930, wherein is disclosed a compartment shower bath of circular form providing for a plurality of associated compartments of sector-like form.

The construction in the afore-mentioned patent provides a compact arrangement for a plural number of associated shower compartments, minimizing in the frame-work and fittings required, and permitting a common supply and drain for all of the shower compartments so grouped, with individual valve controls for each shower compartment.

Insofar as the present structure follows the prior arrangement, the objects and advantages residing in the prior construction are also attributable to the present invention. In the present invention, however, a mixing chamber common to all of the shower compartments is mounted on the upper end portion of the central post and the various discharge nozzles extend radially from the common mixing chamber into their respective shower compartments and are provided with separate control valves. This arrangement lends itself very advantageously to the use of overhead supply pipes which may be necessary in many installations. On the other hand, the present construction may be used to equal advantage where supply pipes from below are required.

A further object of the invention is to provide a compartment shower bath which may be readily trapped and vented.

A further object of the invention is to provide a circular type compartment shower bath which is of very simple construction and arrangement, may be installed in a minimum amount of space, is relatively inexpensive, is strong and durable and is well adapted for the purposes set forth.

With the above and other objects in view, the invention consists of the improved compartment shower bath, and its parts and combinations as set forth in the claims, and all equivalents thereof.

In the accompanying drawings in which the same reference characters indicate the same parts in all of the views:

Fig. 1 is a side view of the compartment shower bath with parts broken away and in section;

Fig. 2 is a plan view thereof;

Fig. 3 is an enlarged vertical sectional view of the central support, mixing chamber, valves and associated parts, taken on line 3—3 of Fig. 4;

Fig. 4 is a view taken on line 4—4 of Fig. 3, with portions broken away and in section to show details of construction; and

Fig. 5 is an enlarged, fragmentary vertical sectional view of the lower portion of the central standard and base showing an alternative supply pipe arrangement.

Referring now more particularly to the drawings it will appear that the compartment shower bath includes a tubular frame-work comprised of five upright tubes 8 arranged at equal intervals in circular formation and having their lower end portions suitably embedded in or secured to a dished concrete slab 9. A central hollow standard 10 also has its lower end portion secured to the slab 9 and the upper end portion of said standard extends centrally into a hollow mixing chamber casing 11, of circular form in horizontal section. The inner ends of top frame arms 12 are threaded into spaced-apart bosses 13 formed on the sides of the casing 11, and said arms, five in number in the form shown, extend outwardly radially horizontally. The outer ends of said arms 12 are engaged by fittings 14 on the upper ends of the tubes 8 and the fittings also secure to the adjacent frame-work members an annular ring tubing 15 which surmounts the tubes 8. The tubes 8, standard 10, arms 12 and ring 15 form a frame for partitions 16 which divide the ensemble into five compartments. Curtains (not shown) for the various compartments may be draped from the ring 15.

As before mentioned, the mixing chamber casing 11 is located at the upper end of

the standard 10. The interior of the mixing chamber casing is divided by a horizontal partition 17. Also spaced apart vertical partitions 18 between the bottom of the casing and the inner partition 17, divide the lower interior portion of said casing into a plurality of sector-shaped mixing chambers 19. Between the partition and top of the casing, inwardly of the outer side of the casing and concentric therewith, is an annular wall 20 dividing the upper interior portion of the casing into annular hot and cold water chambers 21 and 22 respectively. Hot and cold water supply pipes 23 and 24, preferably depending from above, enter the casing so as to discharge into chambers 21 and 22 respectively.

Each portion of the horizontal partition 17 forming the top wall of each mixing chamber 19, is formed with a pair of ports 25 and 26 respectively between the chamber 19 and the upper chambers 21 and 22, each of said ports being controlled by a separate valve. Inasmuch as all of the valves and their associated parts are identical, only one will be described in detail. Depending from the partition 17 and surrounding a port 25 and its seat portion 25′ is a cupped cylinder 27 extending through the lower wall of the casing, said cylinder being internally threaded. In threaded engagement therewith is a disc 28 fast on an inner portion of a valve stem 29 and the extreme inner end of the valve stem carries a valve 30 to seat and unseat with respect to the portion 25′ and control the port 25. A bonnet 31 is threaded onto the external portion of the cylinder 27 and threaded into said bonnet, with the valve stem extending therethrough, is a packing nut 32. The lower end of each valve stem carries a manipulating handle, those for the hot water valves being designated 33, and the handles for the cold water valves being designated 34. Each cylinder 27, near its upper end portion, is formed with a line of apertures 35, through which water admitted thereinto from the chamber above, when the valve 30 is in open position, may flow outwardly into the mixing chamber to be tempered and ultimately discharged.

Side portions of the mixing chamber casing 11, adjacent each mixing chamber 19 are formed with radially projecting bored bosses 36 into each of which the inner end portion of a short discharge pipe 37 is threaded, there being one discharge pipe for each mixing chamber and each corresponding compartment of the shower bath ensemble. The outer end portions of the pipes 37 carry depending spray nozzles 38. Obviously, the valve handles for each compartment, when turned to open their respective valves a certain distance, permit the admission of hot and cold water to the corresponding mixing chamber. The tempered water then flows outwardly through the pipe 37 and is discharged in a spray into the shower bath compartment.

Surrounding the lower portion of the standard 10 which is embedded in and extends through the slab 9 is an apertured drain member 39 which discharges into a trap 40 connected to the lower end of the standard below the slab. Extending outwardly of the trap is a discharge or drain pipe 41. Said trap may also be provided with a vent pipe 42 extending upwardly through the tubular standard 10.

Fig. 5 illustrates an alternative arrangement wherein a water supply from below is desired. In this arrangement hot and cold water supply pipes 23′ and 24′ extend through a fitting on the lower portion of the standard 10 below the slab, and then continue vertically upwardly through the standard and connect at their upper end portions with convenient portions of the mixing chamber casing at the upper end of the standard.

The improved compartment shower bath, because of its circular arrangement provides for a maximum number of individual shower compartments within a minimum amount of space, and the structure further minimizes the fittings, pipes, partitions and other requirements. Further, with the mixing chamber casing located at the top of the standard, the water supply may be brought either from above or below. The annular arrangement of the mixing chamber casing permits location of valve controls within each compartment, easily accessible.

From the foregoing description, it will be seen that the improved compartment shower bath is both novel and simple, and is well adapted for the purposes set forth.

What is claimed as the invention is:

1. In a shower bath apparatus, a central column supported on a base, a frame supported on a base and arranged around the column and defining outwardly of the column a plurality of compartments, a water controlling and tempering member mounted on the upper end of said standard and forming a support for upper portions of the frame, and spray pipes extending from said controlling and tempering member into said compartments.

2. In a shower bath apparatus, a central column supported on a base, an annular frame supported on the base and arranged around the column and defining outwardly of the column a plurality of individual sector shaped bath compartments, a separate water controlling and tempering member mounted on the upper end of said standard, water supply pipes other than the column entering said controlling and tempering member, and a plurality of spray pipes ex-

tending radially outwardly from the controlling and tempering member, one spray pipe extending into each bath compartment.

3. In a shower bath apparatus, a central column, a frame-work arranged around the column to form a plurality of bath compartments, a fitting associated with the upper end of the column and having a plurality of valve controlled mixing chambers and hot and cold water chambers common to said mixing chambers, and a spray pipe extending from a portion of said fitting into each compartment.

4. In a shower bath apparatus, a central column, a frame-work arranged around the column to form a plurality of individual compartments, a fitting mounted on the upper end portion of said column and overhanging portions of all of the compartments and being formed with a plurality of valve controlled mixing chambers and hot and cold water chambers communicating with said mixing chambers, valve controlling means depending into each compartment for controlling admission of water to the adjacent mixing chamber of the fitting, and a spray pipe extending from each such mixing chamber into each compartment.

5. A shower bath apparatus, comprising a central column, a hot and cold water mixing chamber attached to its upper end portion and being closed with respect to the column, a frame-work forming compartments around said column, hot and cold water supply pipes entering said mixing chamber, radially extending discharge pipes provided with spray devices projecting outwardly of the mixing chamber into the various compartments, and valves in each compartment connected with said mixing chamber for controlling the flow and the temperature of the water discharged from the spray devices.

6. A shower bath apparatus, comprising a central hollow column mounted in and depending through a base, the column being formed with drainage openings near its lower end and the base being of a form to direct water toward said openings, a trap connected with the lower end portion of said column, a vent pipe connected with said trap and extending vertically through said column, a separate hot and cold water mixing chamber supported by the upper end portion of said column, upper portions of said framework being supported by the mixing chamber, a frame-work extending around said column, radial partitions connected to the frame-work and forming a plurality of compartments around the column, hot and cold water supply pipes entering said mixing chamber, radially extending discharge pipes provided with spray devices projecting outwardly of the mixing chamber into the various compartments, and valves in each compartment connected with said mixing chamber for controlling the flow and the temperature of the water discharged from the spray devices.

7. In a shower bath apparatus, a central vertical column, a hollow fitting carried by the upper end portion of the column, the interior of said fitting being divided by a plurality of radial partitions into a plurality of mixing chambers, control valves for each mixing chamber, a frame work including upper radial arms arranged around the column to form a plurality of bath compartments, the inner ends of the arms of the frame work being secured to the fitting in axial alinement with the partitions in the fitting, and a spray pipe extending from a portion of said fitting into each compartment.

In testimony whereof, we affix our signatures.

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