United States Patent [19]

Borstcher

[11] **3,750,818**

[45] **Aug. 7, 1973**

[54] **DEVICE FOR HANGING A SHOWER-BATH CURTAIN**

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[21] Appl. No.: **142,297**

[30] **Foreign Application Priority Data**

Mar. 18, 1971 France 7117668

[52] **U.S. Cl.** **211/95,** 211/123

[51] **Int. Cl.** **A47f 5/08**

[58] **Field of Search** 211/95, 105.1, 123, 211/105.2

[56] **References Cited**

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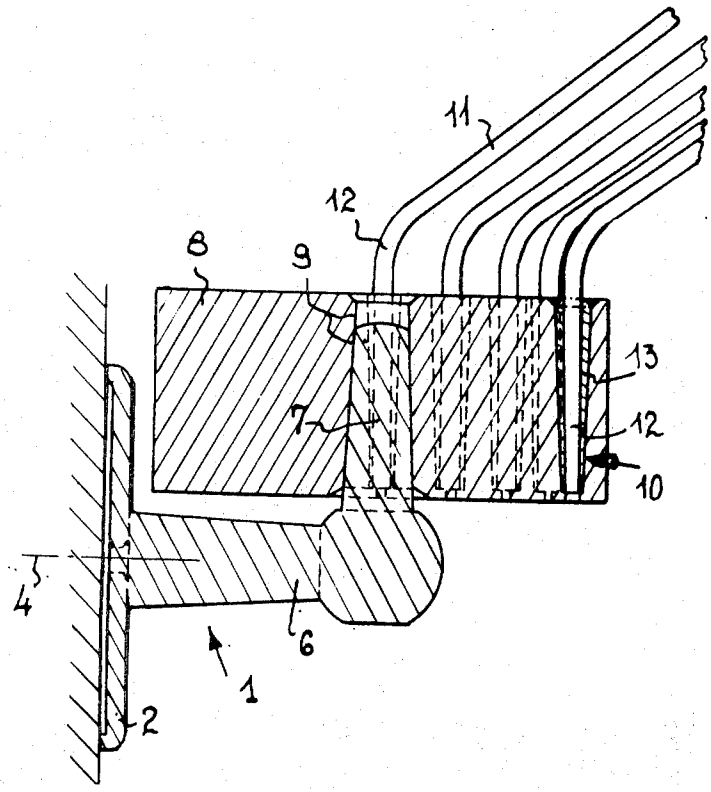
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[57] **ABSTRACT**

The device for hanging a shower-bath curtain comprises an element having an upwardly tapered spindle for supporting a disk-plate which is moreover provided with housings for receiving rods on the free ends of which are fixed hooks for hanging said shower-bath curtain.

3 Claims, 12 Drawing Figures



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SHEET 1 OF 5

FIG _ 1

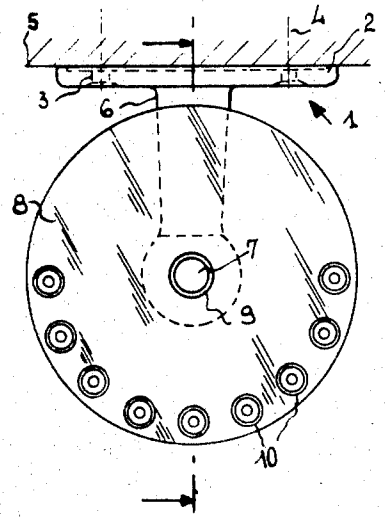


FIG _ 3

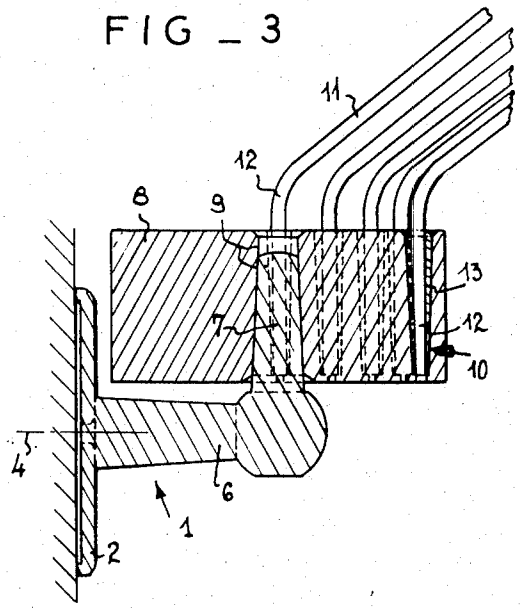
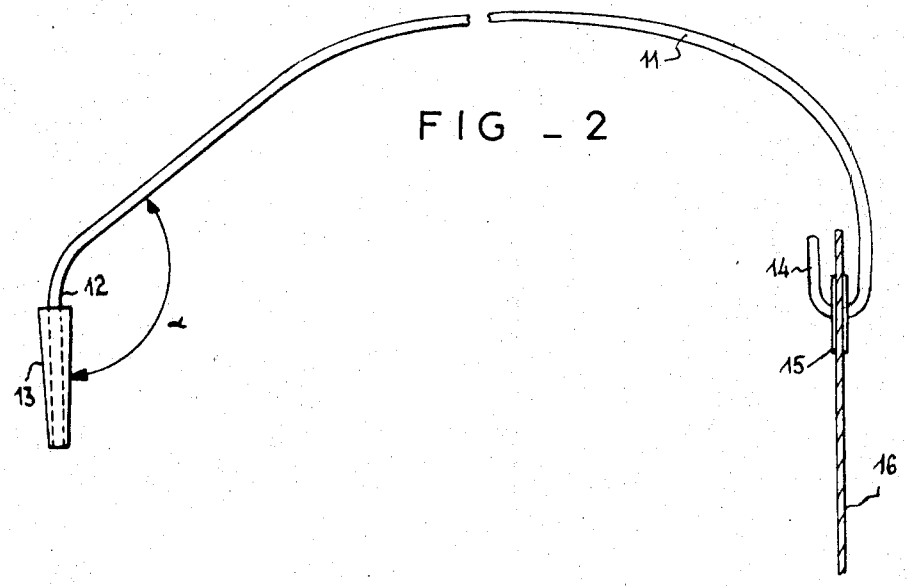
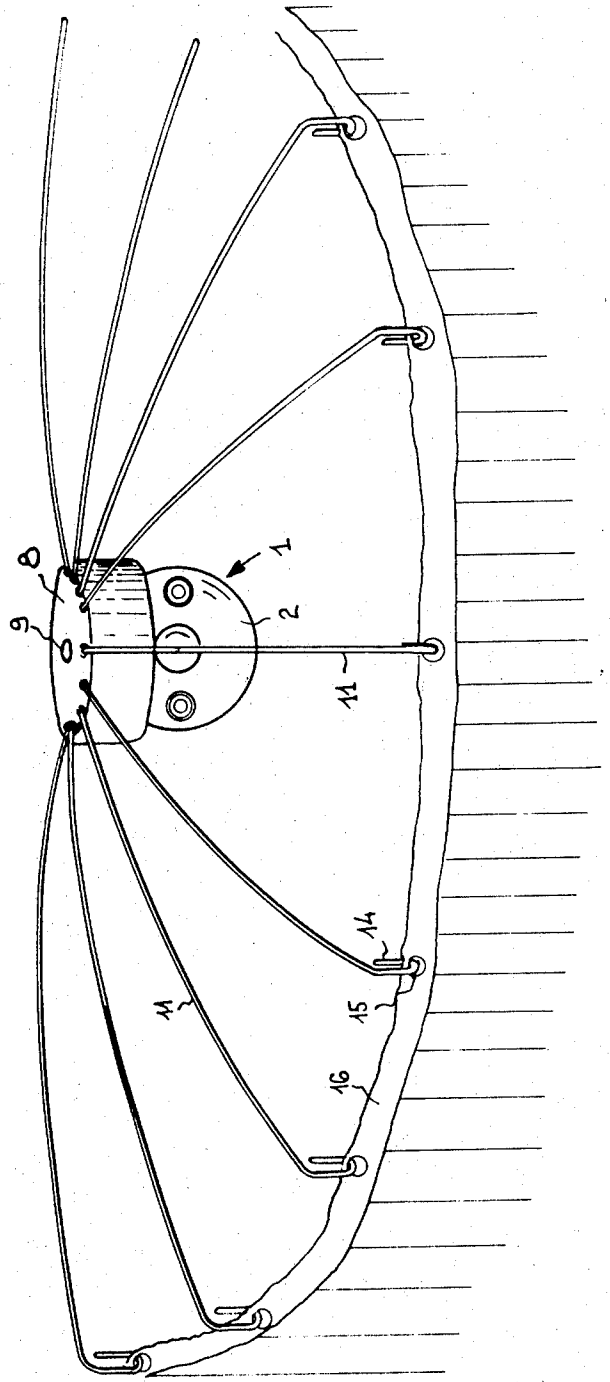


FIG _ 2



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FIG - 4



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FIG _ 7

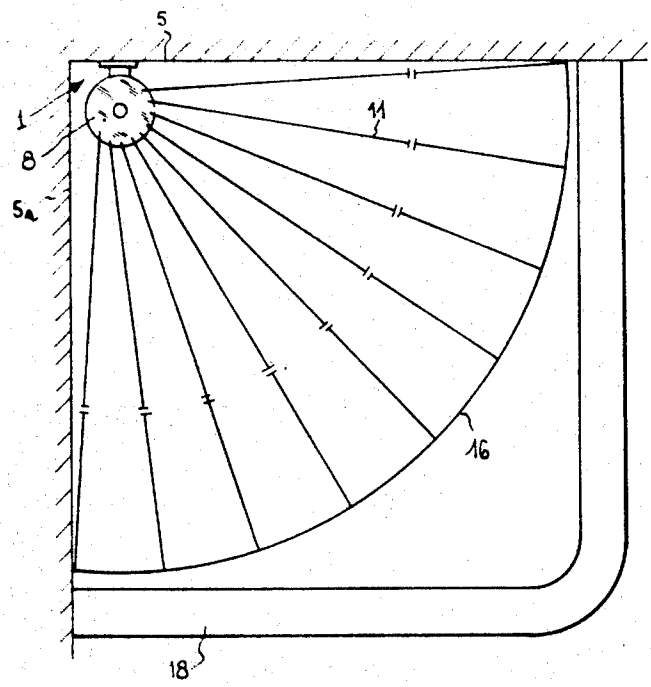


FIG _ 6

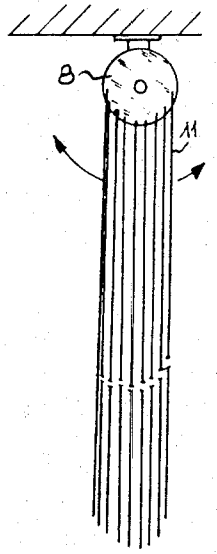
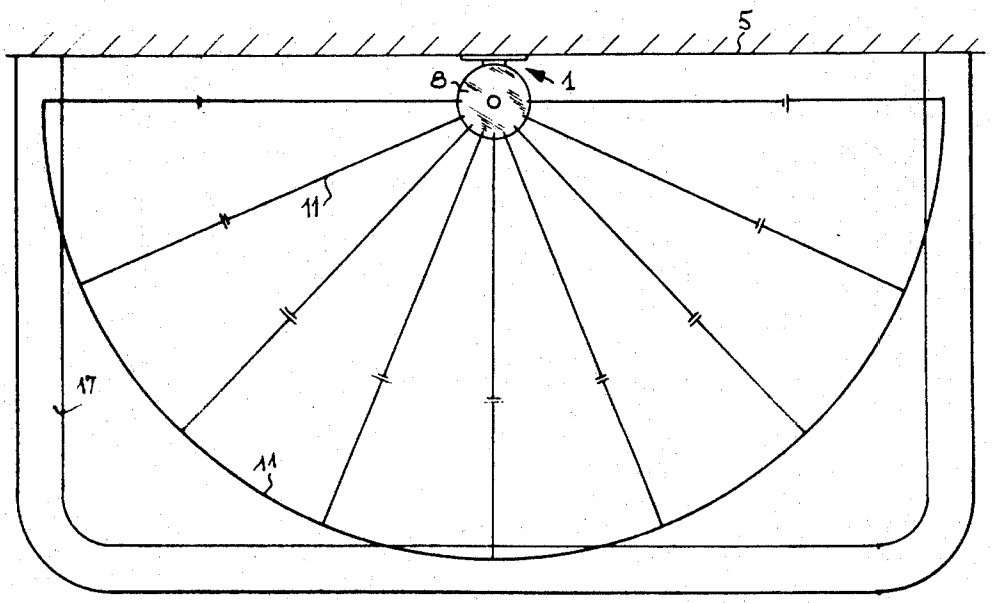


FIG _ 5



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Fig.8

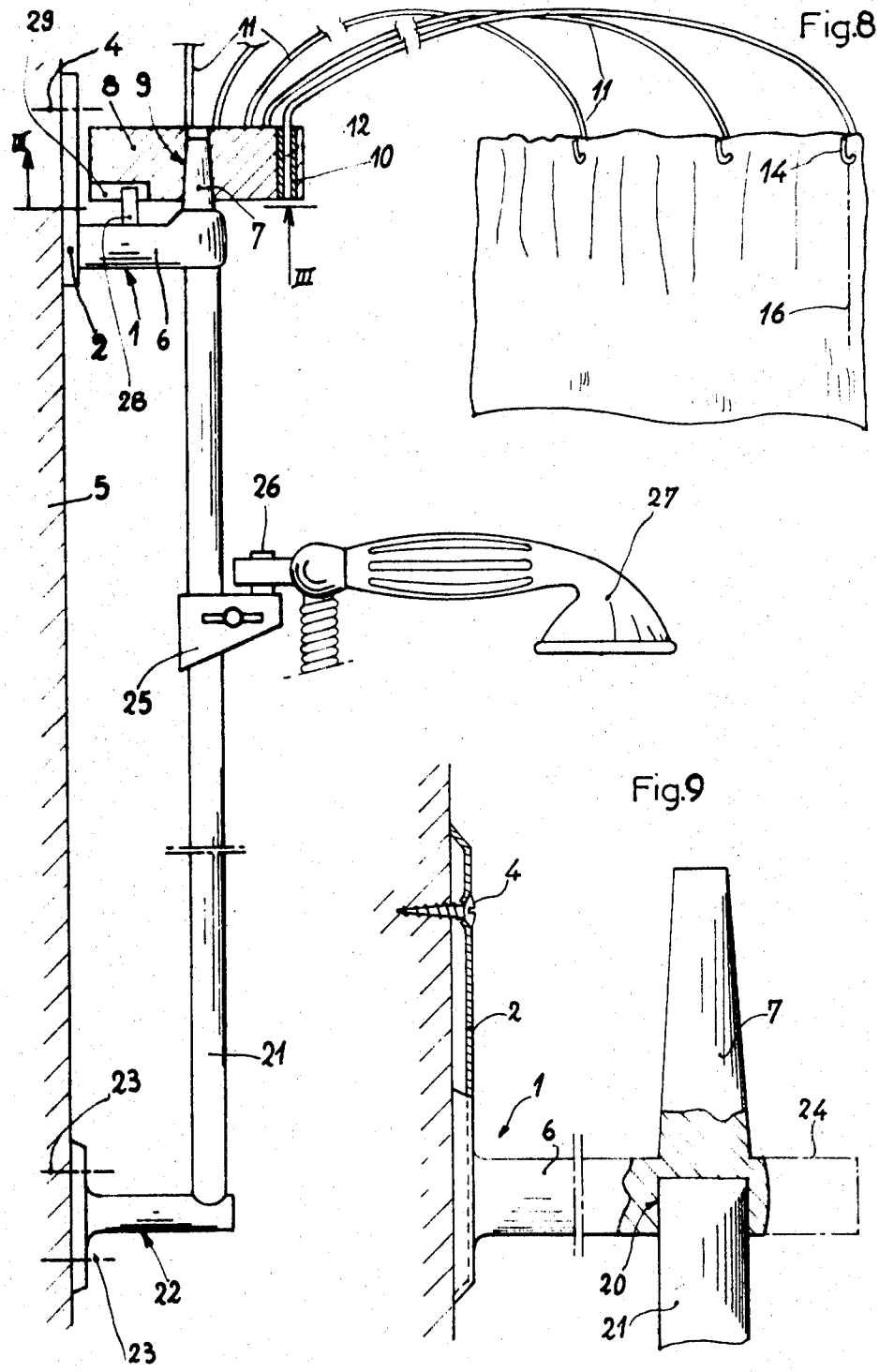


Fig.9

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Fig.10

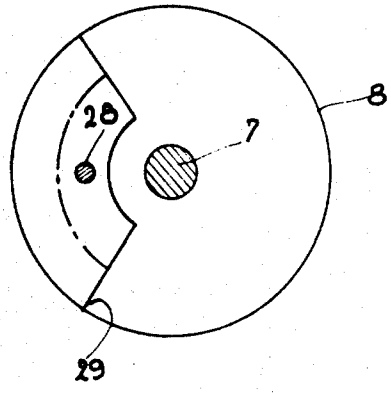


Fig.12

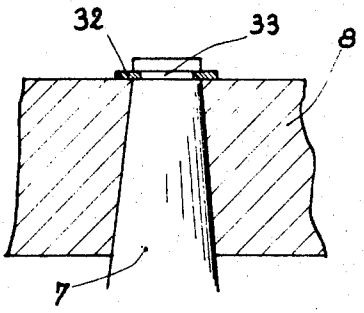
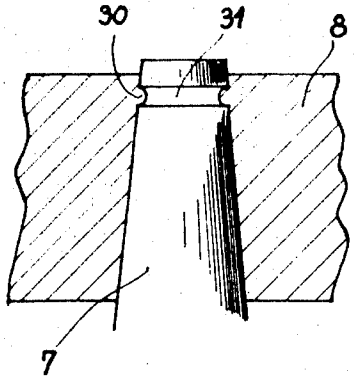


Fig.11



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DEVICE FOR HANGING A SHOWER-BATH CURTAIN

The shower-baths placed above a tub or a bath, are generally provided with a splash-guard screen in view of hiding the user and preventing the water splash. Said splash-guard screen can be made in several various ways, especially the same can be constituted by a rigid panel made of glass or plastic material, or by a supple curtain.

These two embodiments are not entirely satisfactory because, on one hand, the panel is generally bulky and does not allow to delimit an area similar to a separate bathing-hut, and, on the other hand, the curtain must be hung on one or several guides or supporting rods, the permanent fixing of the same being bulky and not aesthetic. Besides, the known embodiments can not be easily used and can only be used in particular conditions for which consequently the user has no choice. Actually, with respect to the rigid panel, it cannot be considered to use the same as a longitudinal wall in relation with a standard bath or as a lateral wall in relation with a showertub or a bath of the slipper-bath type. Also, it is not possible to hang a curtain running around a standard bath since it would require at least one guide or a hanging rail of a great length and having a sufficient mechanical strength.

This invention copes with the above described disadvantages by creating a device to hang a curtain and said device can be used for a shower-bath indifferently placed either above a tub, a standard bath or a bath of the slipper-bath type.

Besides, the device according to the invention has been designed to require a very small surface when not used, without being a bulky and not easthetic appliance.

According to the invention, the device for hanging a shower-bath curtain comprises a supporting element having a vertical spindle with the shape of a substantially truncated cone upwardly directed, a disk-plate supported by said supporting element, means for braking said disk-plate in rotation on said supporting element, housings being moreover provided at least on a portion of the periphery of the disk-plate with said housings opening on top face of the disk-plate in order to receive rods, braking means for controlling independently the rotation of each said rods in said openings, and means related with said rods for ensuring the hanging of a curtain.

Other characteristics of the invention are shown in the following detailed description.

Embodiments of the invention are shown by way of none restrictive example in the accompanying drawings.

FIG. 1 is a plane view of one of the constituting elements of the device.

FIG. 2 is a partially sectional views of another constituting element of the device.

FIG. 3 is a sectional view substantially taken along line III—III of FIG. 1 and showing the assembling of the elements, according to FIGS. 1 and 2.

FIG. 4 is a partial perspective showing the embodiment of the device.

FIG. 5 is a plane view, corresponding to FIG. 4.

FIG. 6 is a plane view illustrating one of the advantages of the device.

FIG. 7 is a plane view showing another example of the embodiment of the device.

FIG. 8 is a partial view, partly in section of a variant.

FIG. 9 is a partial sectional view, partly cut away showing a detail of embodiment at a greater scale than FIG. 8.

FIG. 10 is an enlarged sectional view along line X—X of FIG. 8.

FIGS. 11 and 12 are partial sectional views illustrating, at various scales, other details of the device of the invention.

According to FIGS. 1 to 3, the device comprises a supporting element 1, constituted by a plate 2 having at least two holes 3 to fit the fixing devices 4 on a panel or a wall 5. The plate 2 supports a bracket 6 of the right-angle type, and of which the vertical arm is substantially parallel to the plate 2, thus forming a spindle 7 having the shape of a truncated cone. The fixing of element 1 is made to enable the spindle 7 to extend upwardly whereby supporting a cylindrical plate or disk 8, delimiting in the center thereof a boring 9 having a conical shape which is complementary to the conical shape of the spindle 7.

The plate or disk 8 is slipped on the spindle 7 on which it can be more or less axially fitted to vary, as required, the friction or tightening effect due to conical surfaces in contact of spindle 7 and boring 9. The braking which is so realized can be completed by providing to make the plate of a material having with the material of the spindle a certain friction coefficient.

The plate or disk 8 is provided on a portion of the periphery thereof with equidistant housings 10 which are arranged in the present example, on an arc length approximately equal to 180°. It is obvious that, in some cases, housings 10 can be arranged on a higher angle range and sometimes be designed on the whole periphery of the plate or disk 8. The different housings 10 may be made to have a conical shape inverse to the conical shape of boring 9 and to generally emerge, by the small base, at the level of the lower side of the plate or disk 8. Each housing 10 is designed for placing an arm or a rod 11 including an end portion 12, bent to form with the rectilinear adjacent portion of the arm or rod 11, an angle α within the range of 120° to 130°.

The end portion 12 is provided with a bushing 13 made of a resilient material which can be slightly distorted namely of a plastic material having when at still a conical shape equal to or not very different from the conical shape of housings 10. The bushing 13 is designed to ensure the placing of end portion 12 into any one of housings 10 while producing a friction or tightening effect, variable in function of the fitting, and tending to brake the free rotation of the arm or rod 11, even in the case where housings 10 are cylindrical. The end portion opposite to portion 12 is bent to substantially form a hook 14 designed to receive or fit a ring 15 for a supple curtain 16 made of any suitable material.

To place and constitute the device in view of ensuring the hanging of curtain 16, in order to create a kind of separate shower-bath hut, the plate or disk 8 is slipped on the spindle 7 to produce a friction effect sufficient to enable said plate to be placed in a determined angular position without having the possibility of a free and uncontrolled rotation. In the embodiment as shown on drawings, nine arms or rods 11 are then respectively placed into housings 10 each of them being submitted

to an axial fitting strain sufficient to relatively compress bushing **13** whereby braking the free rotation of each arm. Then the curtain **16** is placed on the different hooks **14** and the arms or rod **11** are extended in the form of a rayonnant armature whereby ensuring the hanging of said curtain **16** which consequently gets the shape of a semi-circular wall or screen delimiting with the panel or wall **5** a separate shower-bath hut as shown on FIGS. **4** and **5.**

In the case of a standard bath **17** (FIG. **5**), the supporting component **1** is, preferably, fixed onto a wall **5** to occupy a transverse median position whereby the arms or rods **11** substantially extend above the whole surface of bath **17.** The curtain **16** then constitutes a separate bathing hut entirely surrounding the user, to form an anti-splash guard of which the lower portion penetrates inside the peripheral walls of the bath **17.**

After use, the arms or rods **11** are folded and placed in parallel to each other to substantially form a core which can be pushed against the wall **5,** in any direction of the arrows as shown on FIG. **6** by submitting the plate or disk **8** to a forced rotation in relation with spindle **7.** Thus, the user has the possibility to reduce the total surface required for the device and the curtain, by pushing all the constituting elements against the panel or wall **5.** As above mentioned, the plate or disk **8** is braked in rotation around the spindle **7,** whereby it always has a steady angular position corresponding to the position preferred by the user to ensure a suitable direction of the device, i.e. the arms or rods **11** when extended, or the core of arms or rods when folded. It is all the same with respect to said arms or rods **11** which can then be placed in a steady angular extension without being submitted to an uncontrolled partial individual rotation, particularly under a pulling strain possibly transmitted by curtain **16** when utilized. The user is thus sure to have at his disposal a splash-guard screen which will always keep the position given by the user by means of the hanging device.

It has above been mentioned that each arm or rod **11** has an end portion **12** bent to form an angle within the range of 120° to 130°. Said angle has been determined, taking into consideration the relative position of the different arms or rods, whereby making possible, as it appears from FIGS. **3** to **6,** to place said arms or rods like a core, while ensuring the overlapping or the covering of the end portions at least of the end arms. It is thus possible to bring the core of arms or rods **11** along a wall without changing the angular direction given to plate **8** in relation with spindle **7,** in case of slight angular move required to set said plate in a defined position exactly corresponding to the best conditions of extension and utilization.

Another embodiment is shown in FIG. **7** wherein the supporting element **1** is placed in the angle formed by two walls **5** and **5***a* bordering a bath-tub or a small bath of the slipper-bath type **18.** In this embodiment, the plate or disk **8** is angularly directed on spindle **7** in order that the different arms or rods **11** will extend on an angular area substantially equal to 90°, whereby the curtains **16** forms, with walls **5** and **5***a* a separate shower hut. As in the above mentioned embodiment, the whole device and also the curtain **16** can, after use, be pushed either against wall **5** or against wall **5***a.*

Besides the above described advantages, it is to be noticed that the device of the invention can also be easily disassembled between two utilization times since one only has to remove the disk **8** from spindle **7** and, on the other hand, the arms or rods **11** from disk **8.** The constituting elements, when disassembled, are not bulky and can be put aside in any cabinet, while only leaving the supporting element **1** fixed on wall **5.** Besides, curtain **16** can be constituted by at least two panels partially overlapping each other to prevent any splashing while enabling an easy access.

FIG. **8** show a variant of embodiment whereby the supporting element **1** is made so that the horizontal arm of bracket **6** be provided on opposite side and preferably in the axis of the spindle **7** having the shape of a truncated cone, a blind recess **20** (FIG. **9**) enabling the mounting of the upper end portion of a column **21,** also maintained to extend vertically and in parallel with panel **5** by means of a lower supporting component **22** fixed by any suitable means **23.**

The recess **20** can be slightly in the shape of a truncated cone, mainly in the case of a column with cylindrical section, to ensure a connection by simple forced fitting. Recess **20** can be provided with a boring corresponding to a threading provided on the upper end portion of column **21.** It is obvious that other realizations can be made in the case of embodiment of a column **21** with polygonal section and also in some cases it can be desired to delimit the recess **20** in an eccentric way in relation with spindle **7** either towards plate **2** or towards an extension **24** shown in mixed lines on FIG. **9.** Thus, the plate **2** constitutes both a supporting component for the disk **8** and a maintaining and fixing means for column **21** designed to support, as well known, a sliding bar **25** adjustable in axial position on column **21** and provided with a lug **26** on which is slipped the body of a shower rose **27.**

It is thus possible to constitute a complete assembly requiring only two fixing points. Besides, the plate **2** makes possible to realize a compact and aesthetic assembly by ensuring by means of a superposition and a vertical alignment of the two parts of the shower-bath installation, a complete integration comparable to a unit element having the same functions.

According to another characteristic, the supporting element **1,** as shown on FIGS. **8** and **10,** is provided with a fixed or removable pin **28,** raising from the horizontal arm **6** to partly penetrate into a slot or notch **29** provided at the lower side of plate **8.** Slot **29** can be made in the form of a ring section or of a curved aperture such as illustrated in mixed lines. Pin **28** constitutes a stop preventing the uncontrolled free or eventually braked rotation of the plate **8** which can only be moved on an angular area corresponding to the extent of notch **29.**

FIG. **11** shows another embodiment whereby the plate **8** comprises in the vicinity of the small portion of boring **9,** a flange **30** designed to be fitted into a groove **31** made into spindle **7.** Thus, said plate **8** is axially fastened on spindle **7** whatever may be the stresses transmitted by the resilient reaction of rods **11** upon operating the curtain or curtains **16.**

FIG. **12** shows a variant whereby the plate **8** is axially fixed on spindle **7** through a resilient ring **32** penetrating into a slot **33** made into spindle **7** whereby said ring constitutes an axial stop for the upper side of the plate.

The invention is not restricted to the embodiments shown and described in detail for various modifications thereof can moreover be applied to it without departing from the scope of the invention.

I claim:

1. A device for hanging up a shower-bath curtain, comprising in combination: a support bracket member including a horizontally projecting arm having a free end, a vertically projecting spindle shaped as a truncated cone directed upwardly and carried on the free end of said horizontally projecting arm, a disc-plate having a central conically shaped bore tapered to mate with a diameter smaller than truncated cone diameter of said vertically projecting spindle to allow only braked rotation of said disc-plate with respect to said spindle, said disc-plate peripherally having conically shaped bores at least along a portion of the periphery thereof each to define housings, ends of supporting arms of a shower curtain being positioned in pertaining housings respectively, and bushing means of resilient material fitted radially between said ends and said housings respectively for rotative braking and axial blocking, the central bore in said disc-plate having a conical shape inverse to conical shape of the bores defining the peripheral housings respectively.

2. A device in combination according to claim 1, in which each of said ends is bent over to define an angle within a range of between 120° to 130° with remainder thereof projecting as supporting arms of the shower curtain.

3. A device as claimed in claim 1, in which a stop fixed relatively to the supporting element engages the dis-plate to limit the range of rotation of said dis-plate.

* * * * *

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,750,818 Dated August 7, 1973

Inventor(s) George Samuel Borstcher

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Item [30] , under Foreign Application Priority Data, "March 18, 1971, France, 7117668" should be cancelled, and the following substituted therefor:

-- May 14, 1970 France 7017668

March 18, 1971 France 7109588 --.

Signed and sealed this 26th day of February 1974.

(SEAL)
Attest:

EDWARD M.FLETCHER,JR.
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents

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USCOMM-DC 60376-P69
* U.S. GOVERNMENT PRINTING OFFICE : 1969 O—366-334.

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