



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

0 448 502 B1

(12)

EUROPEAN PATENT SPECIFICATION

(49) Date of publication of patent specification: **21.12.94** (51) Int. Cl.⁵: **A47K 3/00**

(21) Application number: **91500029.3**

(22) Date of filing: **22.03.91**

(54) **Support for attachment to baths.**

(30) Priority: **23.03.90 ES 9000839**
26.11.90 ES 9003012

(43) Date of publication of application:
25.09.91 Bulletin 91/39

(45) Publication of the grant of the patent:
21.12.94 Bulletin 94/51

(84) Designated Contracting States:
BE DE FR GB IT

(56) References cited:
DE-A- 3 329 258 FR-A- 1 572 389
US-A- 1 376 247 US-A- 2 045 815
US-A- 2 885 690 US-A- 3 414 910
US-A- 3 448 468

(73) Proprietor: **Lasa Azpitarte, Armando**
Paquey 8
E-20600 Eibar (Guipuzcoa) (ES)

(72) Inventor: **Lasa Azpitarte, Armando**
Paquey 8
E-20600 Eibar (Guipuzcoa) (ES)

(74) Representative: **Gonzalez Palmero, Fé**
Calle Sagasta, 4
E-28004 Madrid (ES)

EP 0 448 502 B1

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid (Art. 99(1) European patent convention).

Description

The invention is directed towards the manufacture of sanitary ware accessories and in particular refers to a support for attachment to baths.

ENGINEERING CONDITIONS prior to the date of application.

There are supports for attachment to the edge of baths. See for example US-A-1 376 247.

EXPLANATION OF THE INVENTION. Concerning the arrangement of the constituent elements.

This support, the object of the present Patent of Invention, is disclosed by the features of Claim 1. It is made up in the form of a bridge, which is fitted on/against the edges of the bath.

It offers the possibility of setting variable heights.

In the same way, it may also be adapted to different widths of bath.

The measurement adjustment is made by means of a simple manipulation of levers and the telescopic movement of the tubular elements.

The final attachment is made after carrying out the following operations:

- Adjustment of height, by means of the levers -10-.

They are loosened, the measurement is adjusted and the handles are tightened again.

- Estimation of width, by means of the handles -14-.

When the width has been estimated, the handle on the right -14- is fixed, as seen in figure 1.

- Firm attachment to the edges of the bath by means of turning the handle -17- as seen in figure 3.

Once a firm attachment has been made, the lock nut -16- is fixed, as shown in figure 4.

Finally the handle -14- on the left must be turned (figure 1, and the fixture is then final).

EXPLANATION OF THE INVENTION. With regard to operation.

Operation has already been described in a general way, but will now be explained in more detail:

The bridge assembly is placed in position on the edges of the bath.

The appropriate measurement adjustments are made.

The actual operation is that carried out in order to achieve a firm attachment of the parts -4- against the said edge of the bath -2-.

The attachment is multiple.

The pressure of the attachment is made as follows:

By observing figure 3 and by turning the handle -17-, the spindle -21- is turned. The revolving movement is achieved in view of the fact that the part -20- bears the spindle -21- on one side and the part -19- on the other, which rests on the orifice of the element -12-, and that the said part -19- is extended to form a dowel screw -18- to which the handle -17- is fixed by its threaded collar -24- and the joint is made fast by means of the nut -23-.

The handle -17- is also screwed onto the dowel screw -18-.

Under the conditions of figure 3, any turn of the handle -17- causes the spindle to turn and the consequent displacement of the horizontal part -15- to which the nut -22- is joined.

This revolving movement determines the firm attachment of the assembly to the edge of the bath.

After this tightening movement, its position is guaranteed by means of the lock nut -16- which is set as in figure 4.

Some improvements have been introduced by means of the Certificate of Addition.

Basically, the introductions are the following:

- The obtention of greater security in the attachment of the bridge as a whole in order to avoid any accidents as a result of slipping.
- The bridge or support for attachment on baths is fundamentally maintained.
- The curved elements -3- of the part -7- will be provided with a joint -25- from which will hang a pair of SUCTION CUPS -28- to be affixed to the inside surface of the bath.

This solution is depicted in the attached Figure

8.

- However, in some cases when the danger of slipping is not so great, the placing of a sole SUCTION CUP in the centre of the part -7- will be sufficient; as shown in Figure 9.
- Figure 7 shows the side view of how the SUCTION CUP is attached.
- This type of suction cup is already known in other applications. The important point, however, is the incorporation of the said suction cup to the appliance or support that is the object of the Patent of Invention.

As regards the general operation of the SUPPORT, this is the same as that already described in the main patent application, but The following points may be made:

In achieving greater stability of the assembly by obtaining a firmer attachment by means of the suction cups included:

THE ASSEMBLY AND ADJUSTMENT of the various widths is simplified.

It is therefore possible, in these cases, to exclude the adjustment device of the spindle which appears in Figures 3 and 4.

The breakdown of the improvements as a whole is that shown in Figure 2, which depicts the arrangement of the parts to facilitate packing.

DESCRIPTION OF THE ACCOMPANYING DRAWINGS.

Concerning that shown in each of the figures used.

Figure 1. View of the support in elevation when placed on opposite sides -2- of the bath.

Figure 2. View of the combined parts ready for assembly, after addition of the improvements of the suction cups, which are introduced in the Certificate of Addition.

Figure 3. Firm attachment device. The position shown is that in which the handle -17- may be turned to make the attachment.

Figure 4. Firm attachment device, after locking into position. After firm attachment has been, achieved.

Figure 5. View showing details of the parts, four in number, which are attached to the ends -6- of each supporting leg. Each of these parts is provided with elastic supports -4- which give perfect adherence of the assembly to the edge of the bath.

Figure 6. Side view of each of the parts that serve as a base for each leg of the support.

Figure 7. Side view showing the arrangement of the SUCTION CUPS on the inside surface of the bath.

Figure 8. View of one of the base supports on the bath when provided with TWO SUCTION CUPS placed on the ends of the horizontal part -7-.

Figure 9. View of one of the base supports on the bath when provided with one SUCTION CUP in the centre.

DESCRIPTION OF THE VARIOUS PARTS OF THE INVENTION.

Reference is made to the different signs that have been used in the accompanying drawings, which also point to the relationship between the various elements, both as regards operational order and assembly.

1. Representation of a bath, on the edges of which is to be placed the support concerned in this Patent of Invention.
2. Edges of the bath, on which the support rests and is fixed.
3. Curved elements four in number, which determine the base of the support assembly in the form of a bridge.

These curved parts, which are shown in figure 5, are provided with sockets to house

supports -4- with a certain degree of elasticity, to achieve a strong, firm attachment.

4. Elastic base supports.

5. Screw holes for the attachment of each curved element -3- to the ends -6- of the legs of the bridge frame assembly.

6. Site of attachment of the curved elements -3-.

7. Frame, which allows the attachment at -6- of curved elements -3- at each end, and from the centre of which emerges the extension -8- within which is housed the tubular element -11-.

After insertion, it is fastened as may be most convenient and may even be fixed by gluing.

After insertion, fastening is carried out by means of the handle -10- which joins the lugs -9-.

8. Base of the legs of the bridge.

9. Lugs for attachment by the handle -10- of the bar that has been inserted in the support -8-.

10. Attachment handles of the bar or tubular element -11-, after insertion in the support -8-.

11. Bar which is placed in position according to the height required for the support as a whole.

12. angular element which joins and attaches the horizontal bar -15- to the vertical bar -11-.

The combined mechanisms shown in figure 3 are arranged on this support, in order to achieve the firm attachment of the support assembly on the edges of the bath.

13. Support which similarly attaches the horizontal bar -15- to the other vertical bar -11-.

The support assembly is formed thanks to the pair of elements -12- and -13- with their two legs -11-.

14. Handle to secure the position of the tubular elements -11- and -15- in their telescopic adjustment displacements.

15. Horizontal tubular part, which is the actual handle support for all the movements that the user of the bath wishes to make.

16. Security lock nut, after establishing the position of firm attachment.

17. Pressure handle whereby the displacement of the tubular part -15- is controlled with the desired degree of precision.

18. Screw bolt integrated in the part -20- and the spindle -21-. The handle -17- is screwed on to this bolt. The handle is also secured by means of its own screw, with the nut -23-.

19. Part that serves to reinforce the angular element -12-, so that any turning movement is made freely.

20. Assembly body of the spindle -21-.

21. Spindle, which can turn when required by means of the handle -17-. This spindle is joined to the nut -22-. The revolving movement of the spindle determines the displacement of the nut

and the resulting displacement of the tubular element -15-.

22. Nut integrated with the horizontal part -15-.

23. Fastening nut for the handle -17-.

24. Threaded collar forming part of the handle -17-. The part -16- moves freely on this threaded collar and forms a stable lock nut.

25. Joint of the assembly of the SUCTION CUP. A small shank -27- joins the body -26- of the suction cup with the said joint.

26. Metal body of the suction cup, to one side of which is attached the suction cup -28- which, on being deformed by traction of the part -26- on the other side, determines the vacuum.

27. Integral lug of the part -26- which articulates at the point -25-.

28. Suction cup which, through its central deformation, serves as a SUCTION CUP, the adherence being produced thanks to the lever -30-, and a displacement owing to its eccentricity.

The capacity of the suction cup is thus increased and its appropriate depression.

This phenomenon is already known and applied as suction cups in other cases. The novelty lies in its application to this case of securing and fastening in the support to which the invention refers.

29. Central appendage when a sole SUCTION CUP is used for the part -7-.

30. Handle with an eccentric end for moving the suction cup -28- that serves as a suction cup.

The turning of this lever determines the displacement of the central part of the plate -28- and the resulting vacuum.

Claims

1. SUPPORT FOR ATTACHMENT TO BATHS, in form of a bridge, comprising a horizontal part (15), characterized by the fact that the end of said part each fit telescopically into angular elements (12) and (13) from each of which emerge tubular elements (11) and after establishing the relevant positional measurements, fastening is carried out by means of handles (14).

2. SUPPORT FOR ATTACHMENT TO BATHS, according to claim 1, characterized by the fact that each of the tubular elements (11) rest on a part (7) in the form of an inverted "T", so that they are fixed in position on the leg of the "T" (8) by means of levers (10), and at the ends of the wings of the "T" are attached curved elements (3) provided with elastic supports (4) which rest directly on the edges of the bath.

3. SUPPORT FOR ATTACHMENT TO BATHS, according to claims 1 and 2, characterized by the fact that the angular element (12) has a bolt device (21) that may be manoeuvred by means of an handle (17) attached at the outer end, of the element (12) so that this device connected to a nut (22) integrated in the horizontal part (15) produces displacements of the same, and locking may be obtained by means of a further nut (16), thus ensuring that the support assembly is firmly fastened on the edges of the bath.

4. SUPPORT FOR ATTACHMENT TO BATHS, according claim 2, characterized by the fact that said part (7) in the form of an inverted "T" is provided with a joint (25) at its curved elements (3) to which are adapted one or more suction cups (28) which are applied to the inside surface of the bath, holding the whole device on the same.

5. SUPPORT FOR ATTACHMENT TO BATHS, according to claim 4, characterized by the fact that the suction cups (28) are arranged inside a resistant body, preferably of metal, which incorporates an elastic plate that acts on the suction cup and is provided with an eccentrically operated lever (30) which acts on the said elastic plate (28), causing the vacuum in the corresponding suction cup, for attachment to the bath.

Patentansprüche

1. Auflage für zusatzteil von Badewannen, in Form einer Brücke, die ein waagerechtes Teil (15) umfasst, dadurch gekennzeichnet, dass die Enden des genannten Teils jeweils ausfahrbar in Winkelstücke (12) und (13) eingepasst sind, aus denen jeweils rohrförmige Bauteile (11) herausragen, und dass diese nach Durchführung der entsprechenden Messungen bezüglich der Stellung durch Griffstangen befestigt werden (14).

2. Auflage für zusatzteil von Badewannen nach Anspruch 1, dadurch gekennzeichnet, dass die rohrförmigen Bauteile (11) jeweils auf einem Teil (7) in Form eines umgekehrten "T" ruhen, so dass sie über Hebel (10) in einer Position über dem Schenkel des "T" (8) befestigt sind und an den Enden der Flügel des "T" verbinden sich die bogenförmigen Bauteile (3), die mit elastischen Stützen (4) versehen sind und direkt auf den Rändern der Badewanne aufliegen.

3. Auflage für zusatzteil von Badewannen nach den Ansprüchen 1 und 2, dadurch gekennzeichnet, dass das Winkelstück (12) eine Schraubvorrichtung (21) aufweist, die durch einen Bandgriff (17) betätigt werden kann, der mit dem äusseren Ende des Teiles (12) so verbunden ist, dass diese Vorrichtung, die an eine im waagerechten Teil (15) eingebaute Schraubenmutter (22) angeschlossen ist, eine Verschiebung derselben bewirkt, und der Verschluss kann mit einer zusätzlichen Schraubenmutter (16) erreicht werden, um auf diese Weise sicherzustellen, dass die gesamte Auflage fest auf den Rändern der Badewanne befestigt ist.
4. Auflage für zusatzteil von Badewannen nach dem Anspruch 2, dadurch gekennzeichnet, dass das genannte Teil (7) in Form eines umgekehrten "T" mit einer Dichtung (25) in seinen bogenförmigen Bauteilen (3) versehen ist, an der ein oder mehrere Saugnäpfe (28) angepasst sind, die an der Innenoberfläche der Badewanne angebracht werden, und so die gesamte Vorrichtung an dieser befestigen.
5. Auflage für zusatzteil von Badewannen nach dem Anspruch 4, dadurch gekennzeichnet, dass die Saugnäpfe (28) in einem belastungsfähigen Körper angeordnet sind, vorzugsweise aus Metall, in den eine elastische Platte eingebaut ist, die auf den Saugnapf wirkt, und dass diese mit einem exzentrisch wirkenden Hebel (30) versehen ist, der auf die genannte elastische Platte (28) wirkt und so ein Vakuum in dem entsprechenden Saugnapf verursacht, damit dieser in der Badewanne befestigt werden kann.
- ments courbés (3) pourvus de supports élastiques (4) lesquels reposent directement sur les bords de la baignoire.
3. Support pour pièce accessoire de baignoires, selon les revendications 1 et 2, caractérisé en ce que l'élément angulaire (12) a un dispositif à vis (21) qui peut être manipulé par un manche (17) uni à l'extrémité extérieure de l'élément (12) de sorte que ce dispositif connecté à un écrou (22) intégré dans la partie horizontale (15) produit un déplacement de celui-ci, et la fermeture peut s'obtenir au moyen d'un écrou additionnel (16) assurant ainsi que l'ensemble du support est fermement fixé sur les bords de la baignoire.
4. Support pour pièce accessoire de baignoires, selon la revendication 2, caractérisé en ce que cette partie (7) en forme d'un "T" inversé est pourvue d'un joint (25) dans ses éléments courbés (3) dans laquelle s'adapte une ou plusieurs ventouses à succion (28) lesquelles s'appliquent sur la surface intérieure de la baignoire, en fixant tout le dispositif sur celle-ci.
5. Support pour pièce accessoire de baignoires, selon la revendication 4, caractérisé en ce que les ventouses à succion (28) sont disposées à l'intérieur d'un corps résistant, préférentiellement en métal, auquel est incorporée une plaque élastique qui agit sur la ventouse à succion et est pourvue d'un levier qui fonctionne excentriquement (30) qui agit sur cette plaque élastique (28), en créant un vide dans la ventouse à succion correspondante, par sa fixation sur la baignoire.

Revendications

1. Support pour pièce accessoire de baignoires, en forme de pont, qui comprend un partie horizontale (15), caractérisée en ce que chaque extrémité de cette partie s'emboîte télescopiquement dans des éléments angulaires (12) et (13), de chacun d'eux émergent des éléments tubulaires (11) et après avoir établi les mesures de position pertinentes, sa fixation se réalise au moyen de manches (14).
2. Support pour pièce accessoire de baignoires, selon la revendication 1, caractérisé en ce que chacun des éléments tubulaires (11) repose en une partie (7) sur la forme d'un "T" inversé, de sorte qu'ils sont fixés en position sur la patte du "T" (8) au moyen de leviers (10), et aux extrémités des ailes du "T" s'unissent les élé-





