(12) UK Patent Application (19) GB (11) 2 024 910 A

(21) Application No **7922585**
(22) Date of filing **28 Jun 1979**
(23) Claims filed **28 Jun 1979**
(30) Priority data
(31) **2828537**
(32) **29 Jun 1978**
(33) **Fed. Rep. of Germany (DE)**
(43) Application published
16 Jan 1980
(51) **INT CL³**
E04B 2/82
(52) Domestic classification
E1W JCS
(56) Documents cited
GB 1494854
GB 1353161
GB 1262238
GB 1232451
GB 499693
(58) Field of search
E1W
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(54) **Sealing partition edges**

(57) A profiled connecting section 10 for a partition is disposed a short distance (a) from the room surface and temporarily fixed to the room surface by adhesive strip 3, or suction cups 20. Subsequently, the connecting section is permanently fastened while retaining it spaced from the room surface by permanently cementing its long edges to the room surface by means of an elastic adhesive sealing compound 80.

Fig. 3

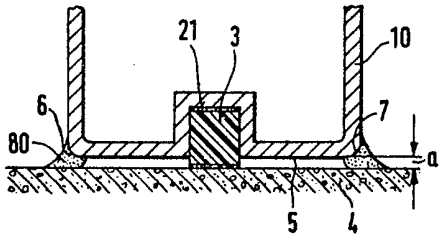
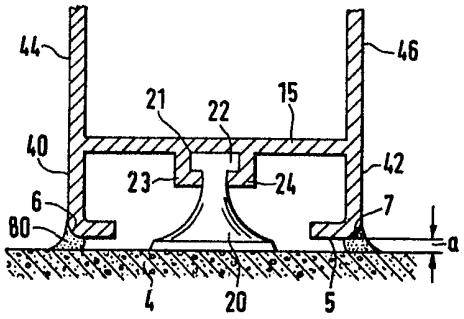


Fig. 4



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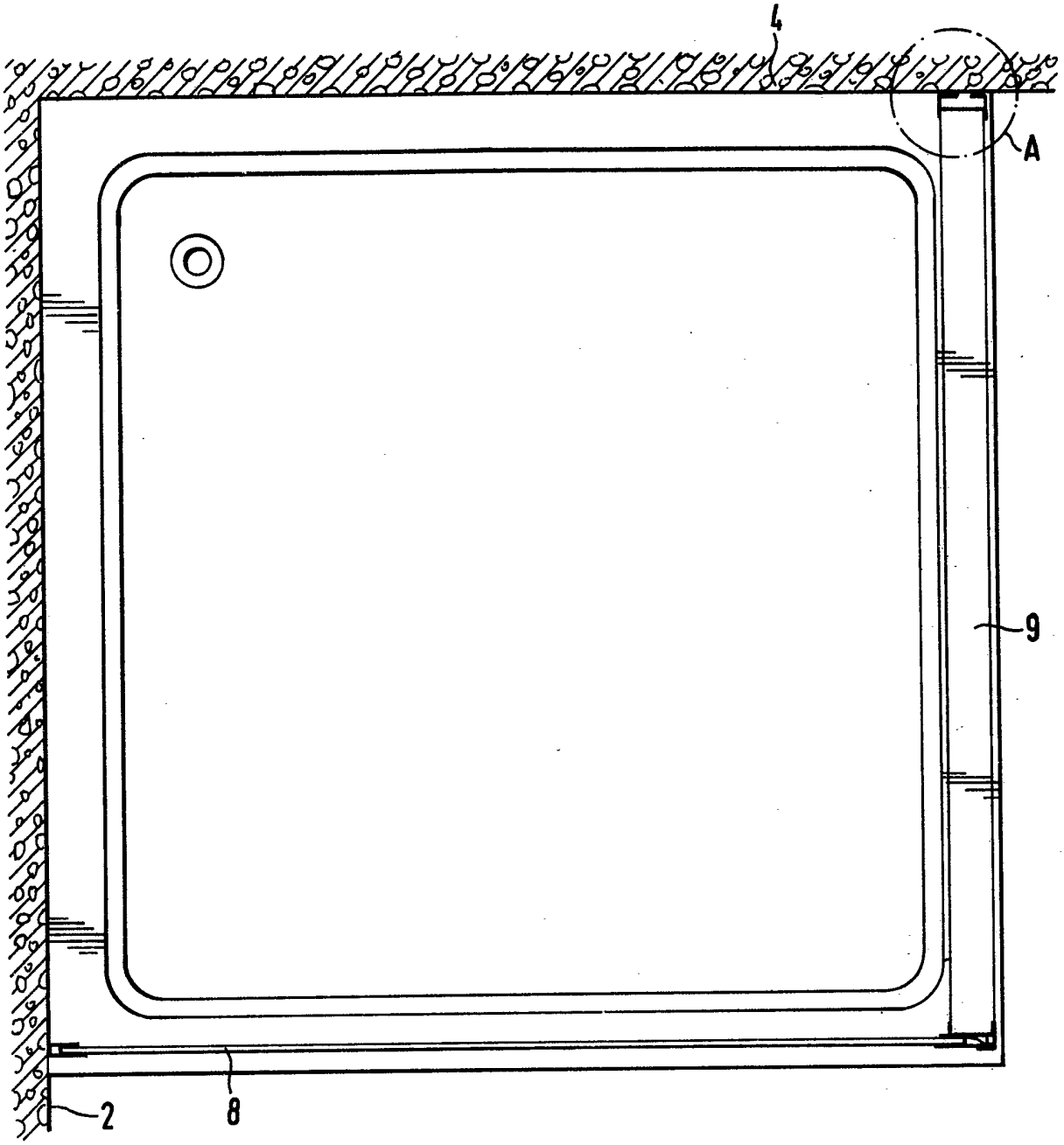

Fig. 1

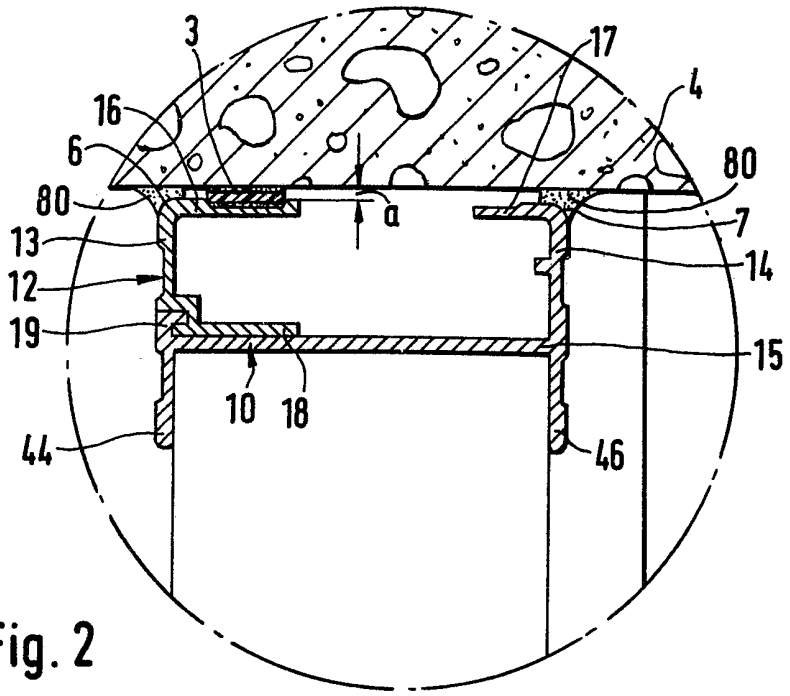

Fig. 2

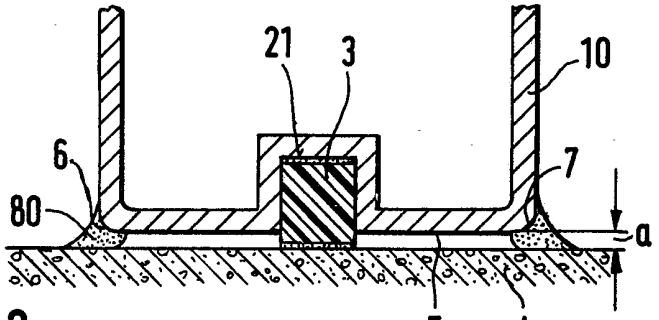

Fig. 3

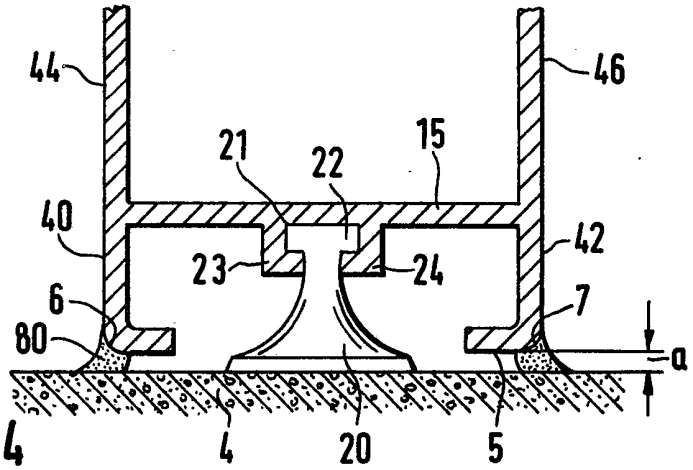

Fig. 4

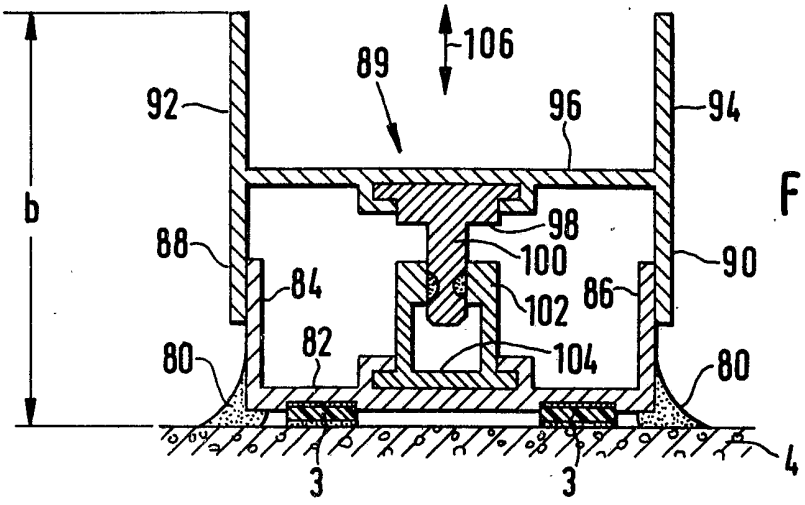

Fig. 5

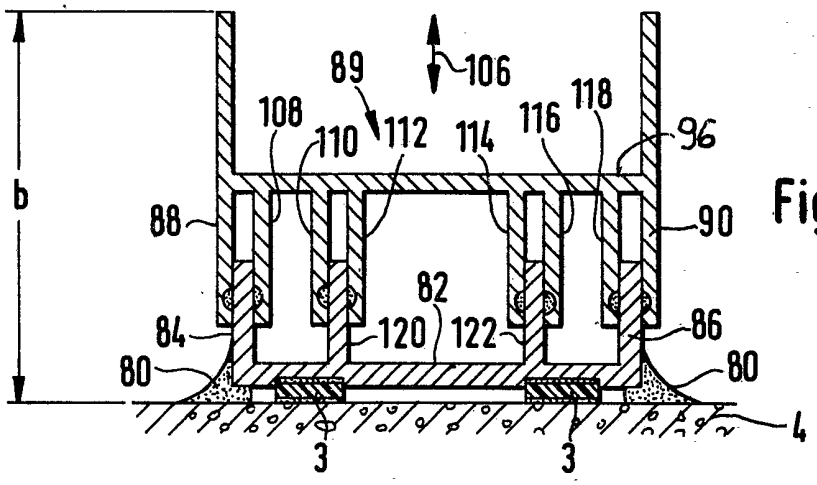

Fig. 6

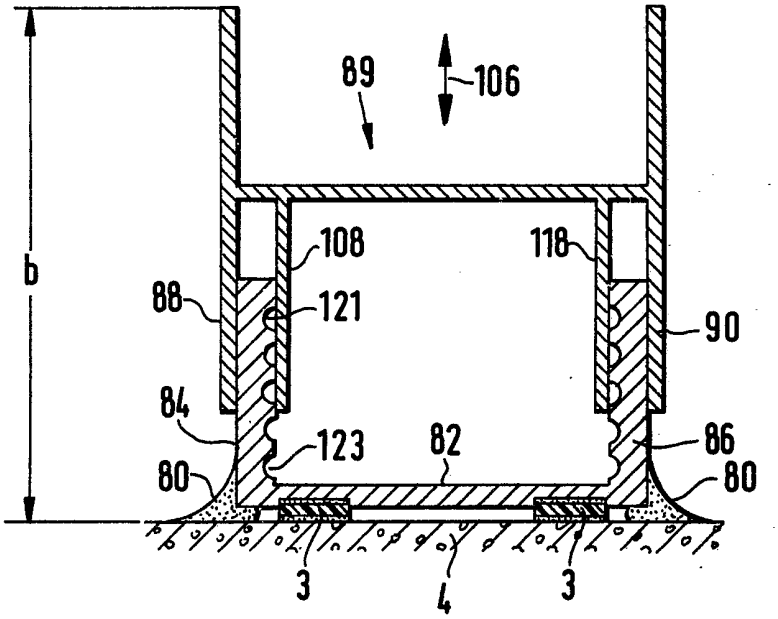

Fig. 7

SPECIFICATION

Fastening method and profiled section therefor

The invention relates to a method for fastening a profiled connecting section of a partition for wet rooms, e.g. shower stalls or bath rooms, to a room surface, e.g. a room wall, especially a tiled wall, or a room ceiling. The invention further relates to a profiled connection section which is particularly well suited for carrying out this method.

Sliding partitions and stationary partitions are placed on the rim of a bath tub or shower tub in order to prevent the shower water from splashing out. For connecting the partition to the room wall and possibly, the room ceiling, a profiled connecting section is required which is connected to the room wall, for instance, by dowels according to British Patent Specification 1504 743. If the room wall consists of tiled walls, holes must be drilled into the tiles.

Further, there exists the problem of a tight connection between the profiled connecting section and the room surface. Difficulties can arise if the room surface is uneven. In that case, it is known to provide resilient sealing strips between the room surface and the profiled connection section.

According to one aspect of the invention there is provided a method for fastening a profiled connecting section having a substantially rectangular side, or a partition for a wet room to a room surface which comprises disposing the side of the profiled connecting section adjacent to but spaced from the room surface, tacking the profiled connecting section to the room surface while retaining the connecting section adjacent to but spaced from the room surface, and subsequently permanently cementing the long edges of the rectangular side of the profiled connecting section to the room surface by means of an elastic adhesive sealing compound while retaining the connection section adjacent to but spaced from the room surface.

According to another aspect of the invention there is provided profiled connecting section of a partition for a wet room for fastening to a room surface, having body with a substantially rectangular side to face the room surface, a recess in said side facing the room surface position, said recess extending parallel to the long edges of said rectangular side, and spacing and tacking means disposed in the recess for tacking the profiled connecting section to the room surface, said means extending beyond the recess to retain the connecting section adjacent to but a desired distance away from the room surface.

The two problems of the art discussed previously are overcome in accordance with the invention by the provision that the profiled connecting section is first tacked to the room surface elastically and with lettle spacing therefrom and that subsequently, the long edges of the profiled connecting section adjacent to the room surface are permanently cemented to the room surface by means of an elastic adhesive sealing compound.

The profiled connecting section is advantageously tacked to the room surface by at least one adhesive strip and/or suction cups. As soon as the profiled connecting section is temporarily fixed to the respective room surface, the elastic sealing compound is applied into the gaps between the long edges of the profiled connecting sections on the one hand and the room surface on the other hand. Thereby, equalization also of major unevennesses of the room surface is achieved as well as also the mounting of the profiled connecting section, without usig any tools and without damaging the tiles.

The small distance left in the temporary fixing between the profiled connecting section and the room wall must be large enough, considering the existing unevenness of the room surface, to enable the sealing compound to penetrate into the gap between the long edges of the profiled connecting section and the room surface. This distance will be dependent on the unevenness of the room and may vary from 1/8 inch or less to 3/8 inch or more.

The temporary fixing with the elastic adhesive strip or the suction cups facilitates the attachment of the profiled connecting section greatly. The installation is independent of unevennesses of the wall surfaces. The expansion occurring during temperature cycles of the profiled connecting sections, which are usually made of extruded aluminum, versus the material of the room surface does not loosen the attachment according to the invention, since expansion differences can be taken up by the elastic adhesive strips or the suction cups and the likewise elastic adhesive sealing compound, all of which are conventional materials. There is no danger that cracks could occur in the cemented joints or that these cemented joints could become loose.

On occasion, the width of the partition is smaller than the wall surface to be covered, so that there is a gap between the profiled connecting section and the room wall. It is an optional feature of the invention to provide a profiled connecting section, the width of which can be adjusted in such a manner that such a gap can be bridged. It is desirable in this connection to make possible a continuous adjustment of the width of the profiled connecting section and to secure the adjusted width without the use of tools.

Such settability of the width of the profiled connecting section which can be carried out without the use of tools is desirable, particularly if no tools of any kind are used in fastening the profiled connecting section to the room wall.

A continuously adjustable profiled connecting section advantageously has two legs which extend perpendicular to the room surface and face away from the latter. These two legs are surrounded by two legs of an H-adapter section, the other two legs of which accept or receive the movable or stationary panel of the partition. The H-adapter section may be fixed at different distances from the connecting wall or the H-cross wall by moving the two legs of the H-adapter closer to or further

from the wall. For fixing the H-adapter section to the body at mutually touching surfaces extending perpendicular to the room surface of the body on the one hand and of the H-adapter section on the other hand, slots filled with adhesive are advantageously provided.

Examples of the invention will now be described with reference to the accompanying drawings in which:

Fig. 1 shows a top view of a shower cabin built into the corner of a room with a sliding partition and a stationary.

Figs. 2, 3 and 4 diagrammatically show three different embodiments of the profiled connecting section fastened to the room surface according to the invention, and

Figs. 5, 6 and 7 diagrammatically show three additional different embodiment illustrating the fixation of the H-adapter section to the U-shaped part of the profiled connecting section in accordance with the invention.

Fig. 1 shows in a plan view a shower stall which is arranged in the angle between two room walls 2 and 4. The shower stall has a sliding partition 9 with movable wall panels and a stationary partition 8 with immovable panels. The shower stall is entered and left through the sliding partition 9.

The fastening of the sliding partition 9 to the room wall 4 is designated by A in Fig. 1. Different embodiments of this fastening are shown in Figs. 2, 3 and 4.

As can be seen from Fig. 2, the profiled connecting section 10 has a cross section of substantially H-shape. The H-legs 13 and 14 intended for the connection to the room wall have extensions 16 and 17 which are parallel to the H-cross wall 15 of the connecting section 10 and which extensions extend toward each other. The left H-leg 13 as well as its extension 16 form an angle section 12. Angle section 12 has an extension 18 which extends parallel to the H-cross wall 15 is secured to H-cross wall 15. H-legs 13 and 14 extend beyond cross wall 15 as H-legs 44 and 46 respectively.

A recess 21 open toward the room wall 4 is located in the extension 16. A sealing strip 3, cemented into this recess 21, protrudes by the small distance *a* beyond the H-legs 13 and 14 of the profiled connecting section 10.

The corners 6 and 7 between the H-legs 13 and 14 and their respective extensions 16 and 17 are rounded and are cemented to the room wall 4 by means of an elastic sealing compound 80.

The two-part design of the profiled connecting section 10 shown in Fig. 2 permits, first, a temporary fixation of the angle section 12 by means of the adhesive strip 3. Then, the remaining part of the profiled connecting section 10 is placed on the angle section 12 and is connected to the angle section 12 via a tongue-and-groove joint 19, preferably without the use of screws. Ulitmately, the two gaps between the longitudinal corners 6 and 7 of the profiled connecting section 10 and the room wall 4 are sealed by means of the sealing compound 80.

In Fig. 3, another profiled connecting section 10 according to the invention is shown. It may be used as the connecting section designated A in Fig. 1. The profiled connecting section 10 of Fig. 3 has a U-shaped cross section. It has a recess 21 in the connecting wall 5 facing the room wall 4, extending in the longitudinal direction of the section 10. The sealing strip 3 is arranged in this recess 21. The sealing strip 3 extends, as per Fig. 2 beyond the connecting wall 5 by the minimum distance *a*.

After the connecting section 10 shown in Fig. 3 is temporarily fixed by means of the adhesive strip 3 to the room wall 4, the two rounded longitudinal corners 6 and 7 are connected firmly to the room wall or the room ceiling 4 by means of the elastic adhesive sealing compound 80.

Fig. 4 shows a connecting section of H-shaped cross section. The H-cross wall 15 extends parallel to the room surface 4. The H-cross wall 15 carries two H-legs 40 and 42 extending from wall 15 toward the room surface 4 and further H-legs 44 and 46 extending away from the room surface 4.

The H-cross wall 15 carries on its side facing the room surface 4, longitudinal webs 23 and 24 which extend in the lengthwise direction of the section and carry strips facing each other; these strips together with the longitudinal webs 23 and 24 define a T-shaped undercut longitudinal slot.

Suction cups 20 (of approximately rotation-symmetrical cross section) carry T-heads 22 which sit in the longitudinal slot defined by webs 23 and 24 with a press fit, in a line.

Like the adhesive strip 3 in Figs. 2 and 3, the suction cups 20 extend beyond the H-legs 40 and 42 by the distance *a*, so that this minimum distance *a* between the profiled connecting section 10 and the room surface or room wall 4 is ensured and enough sealing compound 80 can be placed in the gap between the longitudinal corner 6 and 7 on the one hand and the room surface 4 on the other hand to obtain good adhesion.

Figs. 5, 6 and 7 show parts 82 of a connecting section which have substantially U-shaped cross section. These parts are tacked to the room surface 4, similar to the connecting section shown in Fig. 3, by means of adhesive strips 3 and are cemented by means of a sealing compound 80.

The U-shaped part 82 has lateral U-legs 84 and 86 which are surrounded by H-legs 88 and 90 of an H-adapter section 89. The two other H-legs 92 and 94 of the H-adapter section 89 accept the movable or stationary wall panels of the partition.

The H-adapter section 89 is movable in the direction of the double arrow 106 relative to the U-shaped part 82 to adjust the width b of the profiled connecting section. In this process, the H-legs 88 and 90 of the H-adapter section 89 slide on the U-legs 84 and 86 of the U-shaped part 82.

Once the desired adjustment has been made, it is made permanent by adhesive in slots in the surfaces of the U-shaped part 82 extending perpendicularly to the room surface 4 on the one hand, and of the H-adapter section 89 on the

other hand. If the surfaces of the U-shaped part 82 extending perpendicularly to the room surface 4 on the one hand, and of the H-adapter section 89 on the other hand, move relative to each other, some adhesive is distributed on the surfaces that slide on each other. In the desired adjustment, the adhesive sets and thereby makes the adjustment permanent.

The arrangement of the slots is shown in three different embodiments in Figs. 5, 6 and 7.

According to Fig. 5, and undercut T-slot is provided in the H-web 96 of the H-adapter section 89 as well as at the opposite surface of the U-shaped part 82. These two undercut T-slots are opposite each other. A cylindrical pin 100 has a holding plate 98 which is attached with a press fit in the undercut T-slot of the H-adapter section 89. This cylindrical pin 100 fits closely into a cylindrical opening of a cylindrical chamber 102 which is seated via a further holding plate 104 in the undercut T-slot of the U-shaped part 82.

Since the undercut T-slots have the same cross section, the parts 100 and 102 can be interchanged, or these parts can be mounted alternately at the top and at the bottom.

The two parts 100 and 102 have cylindrical engaging surfaces which extend perpendicular to the wall surface 4. In one of these cylindrical surfaces (in the embodiment example shown, in the cylindrical outside surface of the pin 100), slots are provided which are filled with adhesive. If the H-adapter section 89 is moved in the direction of the double arrow 106, adhesive is distributed on the cylindrical surfaces of the parts 100 and 102. In the final position reached the adhesive sets and fixes this end position, so that the desired width b is set.

According to Fig. 6, the H-web 96 of the H-adapter section 98 has, in addition to the two H-legs 88 and 90, ribs 108, 110, 112, 114, 116 and 118 extending parallel to the legs 88 and 90. The leg 88 with the rib 108 encloses the U-leg 84 of the U-shaped part 82. Similarly, the leg 90 with the rib 118 encloses the U-leg 86 of the U-shaped part 82. The two pairs 110, 112, and 114, 116 of ribs enclose two ribs 120 and 122 of the U-shaped part 82 between them.

The ribs and H-legs (88, 108, 110, 112, 114, 116, 118 and 90) of the H-adapter section 89 touch the U-legs and ribs (84, 120, 122, 86) of the U-shaped part 82 in plane surfaces which extend perpendicular to the room wall 4 in the longitudinal direction of the connecting section. Slots arranged in these plane surfaces are filled with adhesive similarly to the slots of the cylinder surfaces of the pins 100 in Fig. 5. If the H-adapter section 89 is adjusted in the direction of the double arrow 106, then the adhesive is distributed on the plane sliding surfaces which are perpendicular to the wall surface 4. When the adjustment process is completed, the adhesive sets and fixes the H-adapter section 89 in the desired position relative to the U-shaped part 82.

Fig. 7 shows an arrangement similar to Fig. 6, but without the inner ribs 110, 112, 114, 116, 120 and 122. A large number of longitudinal slots extending perpendicular to the drawing plane are provided on the insides of the U-legs 84 and 86 of the U-shaped part 82. These U-legs are surrounded by the H-legs or ribs 88, 108, 118 and 90 of the H-adapter section. Depending on the range, in which the width b of the H-adapter section 89 is to be adjusted, a higher slot 121 or a lower slot 123 or, as shown, a middle slot is filled with adhesive. The adhesive is spread by movement in the direction of the double arrows 106 on the surfaces touching each other of the U-legs 84, 86 and the rigs 108, 118 in a manner similar to the case of the profiled connecting section of Fig. 6. After the adjustment is completed, the adhesive sets and fixes the H-adapter section 89 of the profiled connecting section at the U-shaped part 82 of the profiled connecting section.

CLAIMS

1. Method for fastening a profiled connecting section having a substantially rectangular side, or a partition for a wet room to a room surface which comprises disposing the side of the profiled connecting section adjacent to but spaced from the room surface, tacking the profiled connecting section to the room surface while retaining the connecting section adjacent to but spaced from the room surface, and subsequently permanently cementing the long edges of the rectangualr side of the profiled connecting section to the room surface by means of an elastic adhesive sealing compound while retaining the connecting section adjacent to but spaced from the room surface.

2. Method according to claim 1, wherein at least one adhesive strip is used for tacking.

3. Method according to claim 1, wherein suction cups are used for tacking.

4. Profiled connecting section of a partition for a wet room for fastening to a room surface, having body with a substantially rectangular side to face the room surface, a recess in said side facing the room surface position, said recess extending parallel to the long edges of said rectangular side, and spacing and tacking means disposed in the recess for tacking the profiled connecting section to the room surface, said means extending beyond the recess to retain the connecting section adjacent to but a desired distance away from the room surface.

5. A section as claimed in claim 4 wherein said means comprises an elastic adhesive strip.

6. A section as claimed in claim 4 wherein said means comprises a plurality of suction cups, said recess being formed in a cross wall of said section extending parallel to the room surface, postition said section comprising two legs facing the room surface position said suction cups extending beyond the two legs facing the room surface position to retain the connecting section adjacent to but a desired distance away from the room surface.

7. A section as claimed in claim 6 wherein said recess comprises an undercut longitudinal slot in

said cross wall and said suction cups are formed with T-heads seated in said slot with a press fit.

8. A section as claimed in claim 4 formed with a cross wall extending parallel to the room surface position and two legs facing the room surface position, one of said two legs facing the room surface is formed by an angle section detachably held at the cross wall, said angle section having an extension parallel to the room wall, said recess facing the room surface being formed in said extension, said adhesive strip extending beyond the two legs facing the room surface to retain the connecting section adjacent to but a desired distance away from the room surface.

9. A section as claimed in any one of claims 4 to 8 wherein said body comprises two outward legs extending from said rectangular side away from the room surface position and an H-adapter section having each of two of its legs disposed alongside each said two outward legs of said body, whereby the H-adapter section can be fixed at different distances from the rectangular part.

10. A section as claimed in claim 9, wherein said legs disposed alongised each other having surfaces which touch each other with at least one slot containing adhesive to fix the H-adapter section at a desired distance from the body.

11. A method for fastening a profiled connecting section substantially as herein described with reference to the accompanying drawings.

12. A profiled connecting section substantially as herein described with reference to and as illustrated in any one of Figs. 2 to 7 of the accompanying drawings.

Printed for Her Majesty's Stationery Office by the Courier Press, Leamington Spa, 1980. Published by the Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.