

1

2,997,182

DRIP DRY SHOWER RACK

Eileen D. Lewis, 26 10th Place, Long Beach, Calif., and Alfred Hakanson, San Pedro, Calif.; said Hakanson assignor to said Lewis

Filed June 21, 1960, Ser. No. 37,697
1 Claim. (Cl. 211-86)

The present invention relates generally to the field of supports, and more particularly to a shower rack adapted to be removably affixed to the pipe connection leading to a shower head, or like projecting member, and is especially suitable for supporting hangers therefrom on which garments made of nylon, Dacron, or similar quick-drying fabrics are mounted for the drip drying thereof.

During the past few years, there has been a steadily increasing use of certain synthetic fabrics such as nylon, Dacron, and others, in the fabrication of garments. As is well known, such synthetic fabrics require no ironing after laundering, and the only precaution necessary in laundering such garments is to take care that the wet garments be freely suspended in such a manner that they will dry to their former wrinkle-free condition. Also, when so drying the garments should be supported above an adequately drained area such as a bathtub or stall shower, so that the water dripping from the garments will be drained away from the drying area.

Garments made of nylon, Dacron and similar fabrics are of particular advantage to the traveler, for they enable one to dispense with the use of time-consuming professional laundering services and at the same time eliminates the necessity of having to carry a large supply of clothing. For the city apartment dweller, as well as for the traveler, the use of such drip dry garments provides great convenience. However, difficulty is often encountered in finding a suitable way and a suitable place for hanging the garments while they are drying. The present invention is based upon the recognition of the fact that in order to dry this type of clothing, circulation of air through and between the garments is not required. Therefore, it is even possible to hang the wet garments in close juxtaposition on the shower rack of the present invention in an enclosed space where there is little or no circulation of air. More specifically, it has been found that the stall with which most every modern hotel room or apartment is equipped, and which largely represents wasted space for other purposes, may be very advantageously utilized for this purpose.

The major object of the present invention is to provide an improved, lightweight, portable clothing rack which is particularly adapted to be removably connected to a projecting member over a drainage area such as a pipe leading to a shower head or the like, to support a number of hangers therefrom on which drip dry garments are mounted.

Another object of the present invention is to furnish a portable clothing rack that is of simple construction, can be fabricated from standard, commercially available materials, and due to the relatively low production cost thereof can be retailed at a sufficiently low price to encourage the widespread use thereof.

Yet another object of the present invention is to furnish a drip dry shower rack that may be permanently

2

mounted in hotel rooms above a bathtub or within a shower enclosure, which when so disposed, in no way interferes with the normal use of the tub or shower due to the adjustability of the device whereby it extends upwardly and away from its supporting structure.

A further object of the invention is to provide a device comprising an elongate, pivotally supported clothes rack which can be moved to any desired position, and after being so disposed can be locked in such position by a second manual operation, with both operations being performable by the same hand, which conveniently permits freedom of the other hand for handling of the garments to be suspended therefrom.

These and other objects and advantages of the invention will become apparent from the following description thereof and the accompanying drawing illustrating the same, in which:

FIGURE 1 illustrates a preferred embodiment of the invention removably suspended from the shower pipe in a shower stall, showing the manner of its use;

FIGURE 2 is a side elevational view of the shower rack shown in FIGURE 1, and illustrating in dotted line the inoperative position of the bracket arm;

FIGURE 3 is a transverse cross-sectional view of the invention taken on line 3-3 of FIGURE 1;

FIGURE 4 is a combined elevational and vertical cross-sectional view of the invention taken on line 4-4 of FIGURE 3; and

FIGURE 5 is a transverse cross-sectional view of the shower rack taken on line 5-5 of FIGURE 2.

Referring now to the drawing, it will be seen that a vertical wall A of the shower stall has a pipe B extending horizontally outwardly therefrom, and that a downwardly inclined portion C of the shower pipe supplies water to the shower head D. The present drip dry shower rack which is designated generally by the letter E, is suspended from the inclined portion C of the shower pipe B. Garments F are in turn supported on hangers H from the drip dry rack E, as shown in phantom line in FIGURE 1.

The present invention, as can best be seen in FIGURES 2 and 3, includes a base 10 that is defined by an upper leg 12, lower leg 14 which is preferably parallel to leg 12, and a web 16 extending between the two legs. The upper leg 12, lower leg 14, and web 16 cooperatively define a space 18 of greater transverse cross-sectional area than that of the largest pipe portion C which is normally encountered in most hotel and residential shower installations.

The first leg 12 (FIGURE 3) preferably has an integrally formed boss 20 projecting upwardly therefrom, and boss 20 together with that portion of leg 12 situated directly therebelow has a tapped bore 22 extending there-through. A first screw 24 threadably engages tapped bore 22. One or more rings 26 are formed on the upper end of first screw 24, with each ring having a roughened or knurled surface. A first handle 28 formed of a polymerized resinous material is molded to the ring-bearing end of first screw 24. The handle 28 is preferably of frusto-conical shape and has a skirt 30 depending therefrom which conceals the upper portion of the first boss 20 and that part of first screw 24 projecting above the first boss.

At substantially the center of web 16 a second projecting boss 32 is formed which has a second tapped bore

34 extending therethrough to a recess 36 formed on the interior surface of web 16. A second screw 38 is threadedly mounted in tapped bore 34, and one or more roughened or knurled rings 40 are formed on the outer end of the second screw. A second handle 42 of circular shape is provided that includes a hub portion 44, a circular flange 46 extending outwardly from the hub, which flange on the periphery thereof, supports a flat rim 47 which may be grasped to rotate the second handle. Rings 40 and that portion of screw 38 situated adjacent thereto are located within the confines of hub 44, said hub being formed from a polymerized resinous material and molded to rings 40.

Inadvertent disengagement of second screw 38 from second tapped bore 34 is prevented by the end 38a of the second screw which is expanded to have a cross section slightly greater than that of the second tapped bore. An elongate bracket arm 50 is shown in FIGURE 2 that serves to support hangers H therefrom in the position shown in FIGURE 1. One end of arm 50 is connected to the circumferential edge of a plate 52 having a number of radially spaced teeth 54 projecting from a ring-shaped portion 56 thereof. A recess 60 is formed on that side of plate 52 on which teeth 54 are formed, the transverse area of which recess is slightly larger than that of second boss 32, as may be seen in FIGURE 3. Recess 60 communicates with a bore 62 that extends transversely through the center of plate 52. Second screw 38 extends through bore 62 and pivotally supports plate 52, with the bracket arm 50 projecting outwardly therefrom.

A circumferentially extending groove 64 is formed in the face of plate 52 which is adjacent to handle 42. A compressed helical spring 66 is situated within a confined space defined by handle 42 and the exterior surface of plate 52, with one end of the spring being disposed in the groove 64, and the opposite end of the spring abutting against the interiorly disposed surface of the flange 46.

A resilient strip 68 is provided that is formed from neoprene or the like. The strip 68 defines a tongue 68a that is at all times in contact with the lower end of first screw 24, a first portion 68b bonded to the interior surface of web 16, and a second portion 68c which is affixed to the interior surface of lower leg 14. When first screw 24 is rotated in a direction to move the same toward lower leg 14, the pipe portion C may be removably and frictionally gripped by the tongue 68a and second portion 68c to removably hold the base 10 on pipe portion C without scarring or other damage thereto.

A ring-shaped area 67 of projecting and radially disposed teeth 69 is formed on the exterior surface of web 16, as may best be seen in FIGURES 1 and 4. Teeth 69 are complementary to teeth 54 formed on plate 52. Spring 66 exerts sufficient pressure on plate 52 to maintain teeth 69 and 54 in interlocking engagement and support the weight of bracket arm 50 alone when it is pivoted to any desired position such as in the horizontal as shown in FIGURE 1. However, interlocking engagement of teeth 69 and 54 is insufficient to hold bracket arm 50 in a desired position when hangers H are suspended therefrom. Therefore, before hangers H are suspended from bracket arm 50, the second handle 42 must be rotated to positively move plate 52 into pressure contact with web 16 with a force greater than that afforded by spring 66, as will be described in detail hereinafter.

For ease in rotating second handle 42 when it is wet or damp, a number of circumferentially spaced slots 76 are formed in the rim 47 thereof. Slots 76 are preferably parallel to the axis of rotation of second handle 42. A ring-shaped recess 78 is formed in the exterior surface of handles 42 in which a ring-shaped sheet 80 fabricated from stainless steel or like material, is inserted. The sheet 80 is adapted to have a trademark under which the device is sold, printed or embossed thereon. In FIGURE 2 it will be seen that in elevation the web 16 is trapezoidal

in shape, which lends an attractive and ornamental appearance to the device.

The operation of the invention is extremely simple. First handle 28 is rotated until the spacing between the interior surfaces of tongue 68a and second portion 68c of resilient strip 68 is sufficient to permit base 10 to be mounted at a desired location on the inclined portion C of pipe B. Handle 28 is then rotated in the opposite direction to cause first screw 24 to move toward pipe portion C and bring tongue 68a and portion 68c into frictional gripping contact therewith, whereby base 10 is removably held in a fixed position relative to portion C. Thereafter, second handle 42 is rotated until the spacing between the inner end of hub 64 and the outer face of second boss 32 is substantially greater than the thickness of the central portion of plate 52. Spring 66 at all times exerts a force on plate 52 in a direction to maintain the teeth 69 and 54 in interlocking engagement, and to the extent that bracket arm 50 will remain in the desired position in which it has been pivotally moved by the user of the invention.

After the bracket arm 50 is so positioned, the second handle 42 is rotated in a direction to move the plate 52 toward web 16 and into abutting contact therewith. The teeth 69 and 54 are then positively interlocked against lateral movement, and the bracket arm 50 will remain in the desired position to which it has been placed, even when supporting a plurality of hangers H from which wet, drip dry garments F are suspended. As mentioned hereinabove, interlocking engagement of teeth 69 and 54 effected by the spring 66 is only sufficient to support the weight of the bracket arm 50 at the desired position to which it is pivoted. Therefore, rotation of the second handle 42 in the manner above described is essential to positively interlock the teeth 69 and 54 to the extent that the arm 50 will support the additional weight of hangers H and garments F suspended therefrom. When bracket arm 50 has served its intended function, the second handle 42 is rotated in a direction to move the second handle outwardly from second boss 32. The only force exerted on plate 52 is that provided by spring 66. Bracket arm 50 may then be pivoted to a desired inoperative position, where it will so remain until again needed, due to spring 66 which holds teeth 69 and 54 in interlocking engagement.

It will be obvious to those skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof, and therefore the invention is not limited by that which is shown in the drawing and described in the specification, but only as defined in the appended claim.

We claim:

A clothes hanger rack adapted to be affixed to a shower pipe adjacent the shower head connection thereof, comprising: a base member including a web from which an upper leg and a lower leg project in the same direction, which legs are separated by a distance greater than the external diameter of said shower head connection, said upper leg being formed with a first tapped bore therein, with said web having a second tapped bore formed therein normally disposed relative to said first tapped bore, and a plurality of projecting teeth formed on the external surface of said web; a first screw that threadedly engages said first bore, which screw when tightened after said base member engages said shower head connection clamps said base member thereto; a second screw that threadedly engages said second bore; a handle mounted on the outer end of said second screw; a plate rotatably supported on said second screw, said plate being formed with teeth on that side adjacent said base member which can interlock with said threads on said web; a bracket arm extending outwardly from said plate and lying in substantially the same plane as said plate; and a compressed spring disposed between the exterior surface of said plate and said handle that at all times urges said plate toward said base member

5

with a force sufficient to cause said teeth on said base member and plate to interlock to the extent that said plate and bracket arm will remain in any position relative to said base member to which said plate and bracket arm are manually pivoted so long as said bracket arm has no clothes hangers supported therefrom, with said handle and second screw when rotated in an appropriate direction causing said handle to move into abutting pressure contact with said plate to prevent lateral movement of said plate relative to said base member, said bracket arm thereafter being capable of supporting a

5

10

6

plurality of clothes hangers on which garments are suspended without said bracket arm pivoting relative to said base member.

References Cited in the file of this patent

UNITED STATES PATENTS

2,424,222	Brown	July 22, 1947
2,621,882	Fletcher	Dec. 16, 1952
2,701,113	Koonter	Feb. 1, 1955
2,711,300	Nelson	June 29, 1955
2,941,671	Lewis	June 21, 1960