Aug. 4, 1953 S. TRITT 2,647,641

TOWEL LOCK RACK

Filed Dec. 28, 1948 2 Sheets-Sheet 1

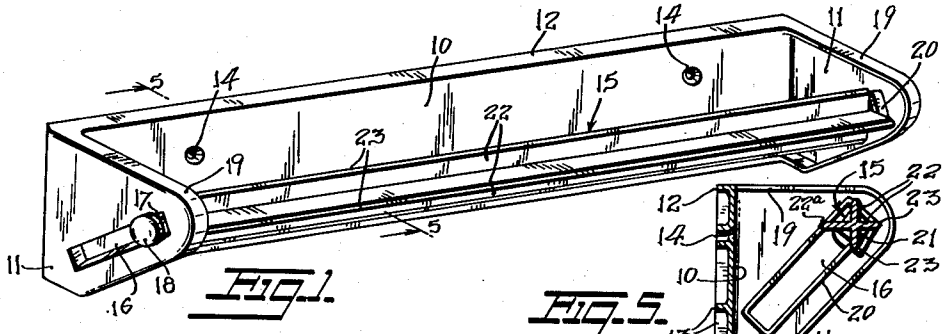


FIG. 1.

FIG. 5.

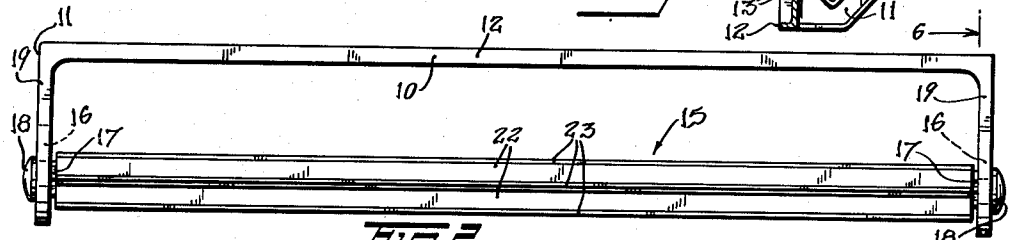


FIG. 2.

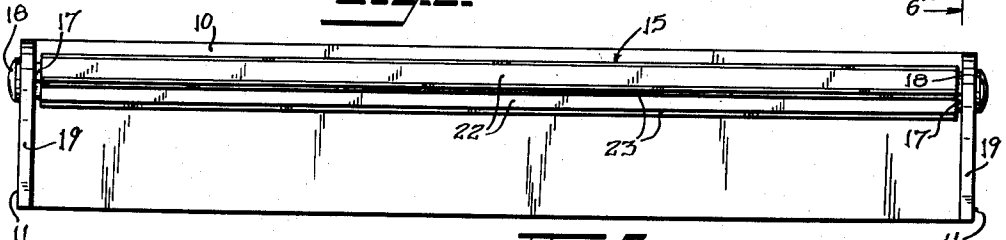


FIG. 3.

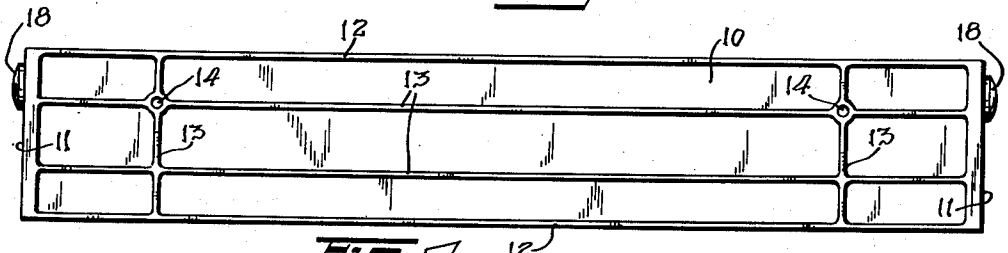


FIG. 4.

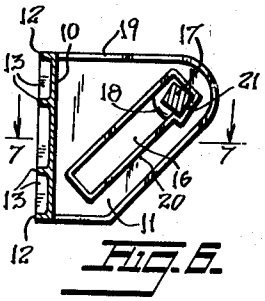


FIG. 6.

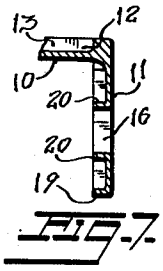


FIG. 7.

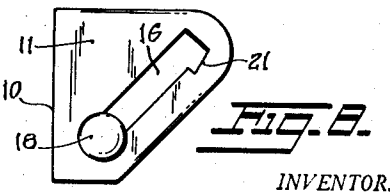


FIG. 8.

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TOWEL LOCK RACK

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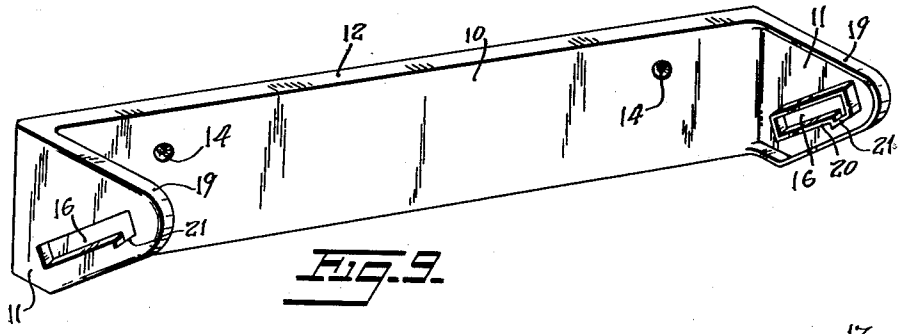


Fig. 9.

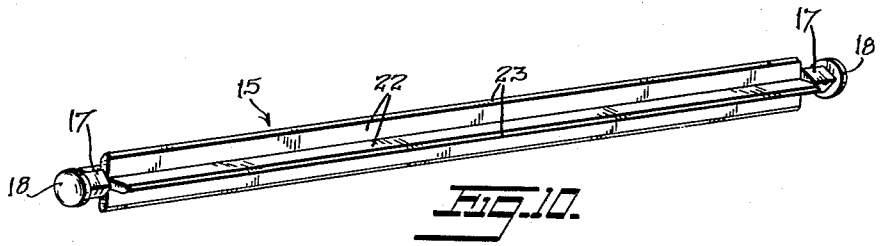


Fig. 10.

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TOWEL LOCK RACK

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1 Claim. (Cl. 211—89)

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This invention relates to new and useful improvements in a towel rack.

More particularly, the present invention proposes the construction of an improved towel rack wherein the weight of the towel engaged over the bar of the rack will cause the rack to function to clamp the towel in position thereon and prevent it from falling off the bar.

Another object of the present invention proposes characterizing the towel rack by a pair of spaced forward extending parallel brackets formed with downwardly and rearwardly inclined slots between which a towel bar is slidably supported to normally assume a position at the lower ends of the slots in a manner to clamp the towel engaged over the bar between the bar and elongated back member from which the brackets extend.

It is another object of the present invention to provide the brackets with notches continuing from the bottom walls of the slots at the top ends of the slots into which the ends of the bar may be engaged with a slight twisting motion in a manner to retain the towel supporting bar in position at the top ends of the slots in a manner to permit the towel or towels to be easily engaged in position over the towel bar.

A still further object of the present invention proposes so arranging the notches that the ends of the towel bar may be disengaged therefrom by merely tapping against the bar so as to free the bar to slide downward in the slots.

It is a still further object of the present invention to form the bar so as to be cross-shaped in cross-section with the arms thereof extended horizontally and vertically when the ends of the bar are engaged with the slots and to reversely bevel the free ends of the arms to form pointed portions in a manner to better grip the surfaces of the towel engaged over the bar.

Still another object of the present invention proposes so arranging the slots that their lower ends will be located in close proximity to the back member in a manner so that when the ends of the bar are located in the lower ends of the slots the back edge of the backmost arm of the cross-shaped bar will be in facial contact with the adjacent face of the back member.

It is a further object of the present invention to construct a towel rack which is simple and durable and which can be manufactured and sold at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and

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accompanying drawings, and to the appended claim in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of the towel rack constructed in accordance with the present invention with the bar retained in its elevated position.

Fig. 2 is a top plan view of Fig. 1.

Fig. 3 is a front elevational view of Fig. 1.

Fig. 4 is a rear elevational view of Fig. 1.

Fig. 5 is a transverse vertical sectional view taken on the line 5—5 of Fig. 1.

Fig. 6 is a transverse vertical sectional view taken on the line 6—6 of Fig. 2.

Fig. 7 is a partial longitudinal horizontal sectional view taken on the line 7—7 of Fig. 6.

Fig. 8 is an end elevational view of Fig. 1, but with the bar in its lowered position.

Fig. 9 is a perspective of the back member and brackets, per se.

Fig. 10 is a perspective view of the cross-shaped bar, per se.

The towel rack, according to the present invention, includes a back member 10 for attachment to a vertical surface and from the ends of which a pair of brackets 11 extend. As will be clearly understood from Figs. 1, 2 and 9, the brackets 11 are integrally formed with the back member or plate 10 and those parts are preferably molded of any one of the well known thermoplastic materials. The brackets 11 extend forward from the ends of the back member 10 parallel to each other.

The back face of the back member 10 is formed about its periphery with an integrally formed stiffening flange 12 and a plurality of integrally formed stiffening ribs 13. At spaced points, the back member 10 is formed with holes 14 through which screws may be passed for securing the back to the vertical surface.

A towel bar 15 is extended between the adjacent inner faces of the brackets 11 and the brackets 11 are formed with diagonally positioned slots 16 which are inclined downward and rearward toward the back member 10. The ends of the bar 15 have attached thereto square portions 17, see Figs. 6 and 10, which slidably engage the slots 16. The outer ends of the square portions 17 are formed with enlarged heads 18 which engage the outer faces of the brackets 11 and prevent the square portions 17 from becoming disengaged from the slots 16.

The bar 15 is preferably formed of one of the

well known thermoplastic materials and the square portions 17 and the knobs or heads 18 are integrally formed also of one of the well known thermoplastic materials. The square portions 17 are arranged to be passed through the slots 16 from the outer sides of the brackets and to have their inner ends attached to adjacent ends of the bar 15 by successive heating and cooling steps which will cause the thermoplastic materials from which the bar 15 and the square portions 17 are formed to become fused into one integral unit.

The outer periphery of the inner faces of the brackets 11 are reinforced by integrally formed peripheral flanges 19. Likewise, the edges of the brackets 11 defining the slots 16 are reinforced by flanges 20 formed on the inner faces of the brackets 11.

Each of the brackets 11 is formed with a notch 21 which continues from the bottom wall of the slot at the top end thereof. The notches taper in thickness as they approach the top ends of the slots 16, so that the top ends of the slots are just as wide as the bottom ends. The bottom walls of the notches are inclined downward and rearward at a greater angle than the bottom walls of the slots 16 forming shoulders between the adjacent ends of the bottom walls, see Figs. 5, 6 and 8. When the bar 15 is manually lifted to the top ends of the slots 16, the square portions 17 are arranged to be engaged into the notches 21 with a slight forward twisting motion to assume the position shown in Figs. 5 and 6 to position those square ends in front of the shoulders and hold the bar 15 in the elevated position in the slots 16 so that the towel or towels may be engaged over the bar with ease.

The bar 15 is cross-shaped in cross-section, see Fig. 5, and the square portions 17 are so attached to the ends of the bar that the arms or crossed vanes 22 thereof will extend vertically and horizontally therefrom forming a cross. The outer ends of the arms 22 of the bar 15 are formed with reverse bevels forming pointed portions 23 along the length of the bar 15 to more securely grip and hold the contacting surfaces of the towel engaged over the bar. The inner arm 22^a of the bar 15 is preferably longer than the other three arms so that this arm may reach closer to the back member 10 when the bar is in its lower position. The longer arm 22^a makes the device more suitable to lock thinner towels. For thicker towels, one of the shorter arms 22 may be made to face the back member 10.

The square portions 17 have a width closely approximating the width of the slots 16 so that they are free to slide up and down in the slots but they cannot be twisted or turned therein. The lower ends of the slots 16 are so located with relation to the front face of the back member that when the square portions are located in the bottom ends of the slots 16, the pointed portion 23 of the backmost arm 22 of the bar 15 will be in facial contact with the front face of the back member 10 with no towel engaged over the bar. Thus, when a towel is engaged over the bar and the bar 15 is moved to its lowered position in the slots 16, a portion of the towel will be clamped between the front face of the back member 10 and the pointed portion 23 of the backmost arm of the bar 15. That portion of the towel will prevent the square portions 17 of the bar 15 from assuming their lowermost positions in the slots 16. Nevertheless, the weight of the towel on the bar 15 will exert a force which will continually draw downward on the bar and cause the pointed portion 23 of the backmost arm 22 of the bar 15 to dig into the surface of the towel and securely clamp the same in position between that pointed portion 23 and the front face of the back member 10. However, when an upward pull is applied to the towel to remove it from the bar, that portion of the towel which depends from the back of the bar will be freely drawn from between the bar 15 and the adjacent face of the back member.

The operation of the towel rack constructed in accordance with the present invention is as follows:

Normally, the square portions 17 of the bar 15 will seek a lowered position in the slots 16, as shown in Fig. 8. To retain the bar in an elevated position to facilitate engaging a towel over the bar 15, it is merely necessary to pull upward and forward on the bar which will cause the square portions 17 to move upward in the slots 16. When the square portions 17 reach the top ends of the slots, a slight twisting motion on the bar 15, in a counter-clockwise direction as viewed in Fig. 5, will cause the bottom corners of the square portions 17 to enter the notches 21, as shown in Fig. 6, and retain the bar in its elevated position. In this elevated position, a towel may be easily engaged in position over the bar 15.

To release the bar 15 to assume its lowered position in the slots 16 and clamp the towel in position over the bar 15 with the pointed portion 23 of the backmost arm 22 of the bar pressing the towel against the front face of the back member 10, it is merely necessary to apply a slight force to the bottom of the bar in an upward and slightly rearward direction. This will cause the bar 15 to be twisted in a clockwise direction, as the top corners of the square portions 17 will be substantially located in the top corners of the slots 16, as shown in Fig. 6, providing the fulcrum about which the square portions will twist. Such twisting motion will align the square portions 17 with the slots 16 freeing the bar 15 to slide downward under its own weight plus the weight of the towel engaged over the bar.

While I have illustrated and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claim.

Having thus described my invention, what I claim as new and desire to secure by United States Letters Patent is:

In a towel clamping towel rack, the combination which comprises a back plate having flanges at the edges and ribs intermediate of the edgs, said flanges and ribs extended from the rear surface of the plate for spacing the face of the plate from a wall surface to prevent contact of a towel on the rack with the surface of a wall upon which the rack is positioned, brackets having diagonally positioned slots therein extended from the ends of the plate, said slots being inclined upwardly from the plate and having notches providing shoulders in the upper ends, and a towel holding bar including crossed vanes whereby the bar forms a cross in cross-section, with sections having flat sides at the ends of the vanes, and having knobs at the ends carried by the brackets with the ends extended through the slots thereof and

with the sections having flat sides positioned to engage the edges of the slots whereby the vanes are retained in vertical and horizontal positions, said shoulders in the upper ends of the slots being positioned to retain the bar in the upper parts of the brackets.

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