Feb. 22, 1938. W. H. PLEISS 2,109,032

TOWEL RACK

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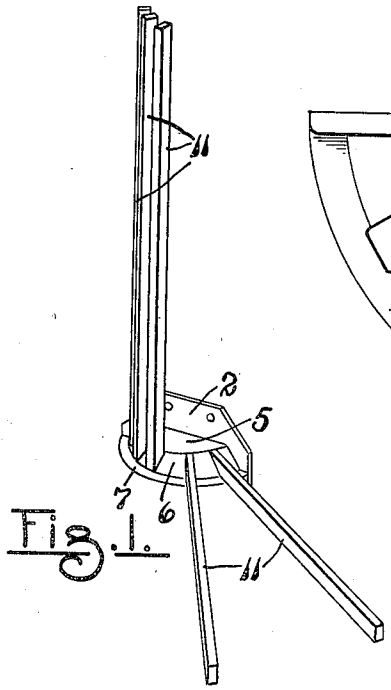


Fig. 1.

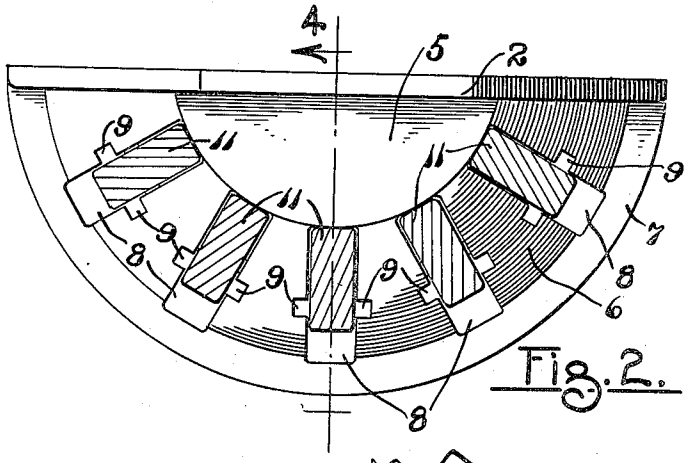


Fig. 2.

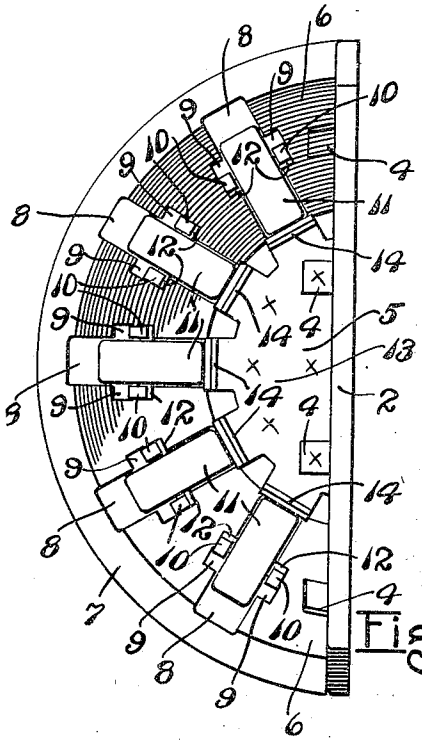


Fig. 3.

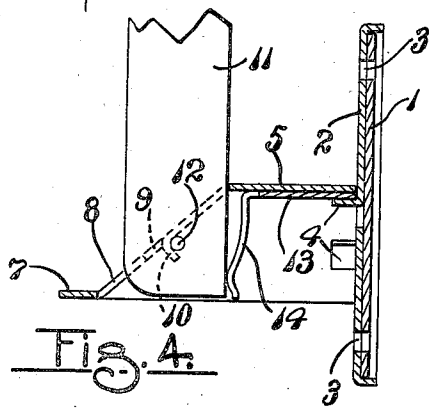


Fig. 4.

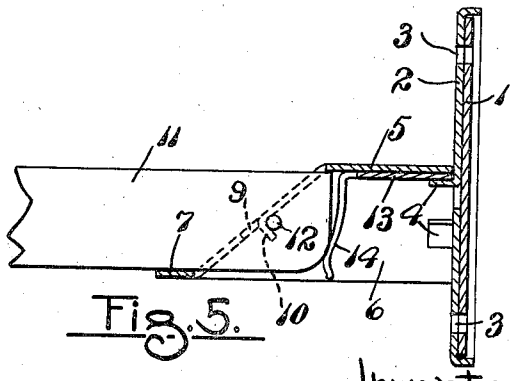


Fig. 5.

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UNITED STATES PATENT OFFICE

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TOWEL RACK

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Application November 23, 1936, Serial No. 112,218

8 Claims. (Cl. 211—100)

This invention relates to towel racks. It is designed with the present invention to provide a towel rack which may be very economically manufactured and in which the individual towel bars are mounted independently of each other so that they may be readily replaced, when necessary without affecting in any manner the remaining towel bars and their pivotal mountings. The construction which I have devised, insofar as the holder for the towel bars is concerned, is of sheet metal and is of a strong and durable character and capable of withstanding severe service. Individual towel bars at times may become broken or otherwise defective, and with my invention the replacement of any bar which becomes broken or otherwise is rendered useless is very simply and effectively accomplished.

With my invention each towel bar is acted upon by a spring located at the inner or pivoted end of the bar which acts to yieldingly hold the associated towel bar in either its vertical or horizontal position. The spring likewise normally holds the bar from disengagement with its support but is yieldable so that a bar may be disconnected and removed, as for replacement purposes, very quickly and easily and without the use of tools.

The invention and a structure embodying the same may be understood from the following description taken in connection with the accompanying drawing, in which,

Fig. 1 is a perspective view of a towel rack made in accordance with my invention.

Fig. 2 is a plan view of the towel rack, the bars being in vertical position and shown in horizontal section.

Fig. 3 is an under plan view of the rack with the bars in vertical positions.

Fig. 4 is a vertical section substantially on the plane of line 4—4 of Fig. 2, and

Fig. 5 is a view similar to Fig. 4 with the towel bar shown located in horizontal position.

Like reference characters refer to like parts in the different figures of the drawing.

In the construction of the rack, a vertical supporting member is provided including a reinforcing or backing plate 1 of sheet metal which is covered by a face plate 2 having flanged edges to extend over the edges of the backing plate as shown in Figs. 4 and 5. Suitable openings 3 are made through the plates for the passage of screws or other fastening devices to attach the same to a wall or similar support. The face plate 2 has a plurality of tongues 4 struck forwardly therefrom in proper position to locate the immediate towel bar carrying member and to which tongues said member is secured preferably by spot welding.

The immediate towel bar carrying member is made from a single plate of sheet metal stamped and formed into shape with a segmental top 5, nearly semi-circular in form, from which an arcuate section 6 extends downwardly and forwardly from the edges of the segment 5. The inclined section 6 terminates with its lower edge in a horizontal supporting ledge 7. A plurality of slots 8 are cut in the inclined section 6 of the support extending from the supporting ledge 7 to the segment 5, having a width slightly greater than the thickness of the towel bars, and having a length greater than the width of the bars which are to be used. At each side of each of the slots 8 tangs of metal are cut and curved inwardly and to the rear leaving small openings 9 one at each side of each slot 8. The tangs are formed into pin engaging hooks 10, there being two of said hooks for each slot 8, one at each side of the slot.

The towel bars 11 are rectangular in cross section and of any desired length. Near the ends of each bar a pin 12 passes therethrough substantially midway between the upper and lower edges of the bar and has projecting ends extending beyond the adjacent sides of the bar. The projecting ends of the pins may pass through the openings at 9 and be brought back of the retaining hooks 10 whereby the towel bars are pivotally mounted on the support and may be swung from vertical to horizontal position and vice versa. In the horizontal position the lower sides of the bars in front of the hooks 12 rest upon the ledge 7, while the upper side of each bar at its rear end bears against the underside of the segmental portion 5 of the support.

A curved plate 13 of thin spring steel is secured at the underside of the upper segmental portion 5 of the support and at its forward edges has integral downwardly extending spaced apart spring fingers 14, one for each of the towel bars 11 used; said spring fingers are located so as to lie directly back of the rear ends of the bars 11 when said bars are in horizontal position, as shown in Fig. 5. When a bar is turned to a vertical position, as shown in Fig. 4, the upper inner corner of the bar rides against its spring and flexes it backward until the bar has reached a predetermined upper position whereupon the spring acts upon the bar to swing it to vertical position and yieldingly hold it in such position. The spring fingers 14 may be suitably shaped to

best effect this action. When a bar is turned downwardly the spring also acts to swing the bar, in the last part of its movement, to horizontal position.

Each bar may be individually assembled with its retaining hooks 10 by merely inserting the rear end of the bar through a slot 8, the ends of the pins 12 passing through openings 9, and then by pushing backward against the spring 14 the ends of the pin 12 are brought behind the hooks 10 and the bar is pivotally connected with the support. Should any bar become broken or otherwise damaged it is very simple and easy to remove the damaged bar and replace it with a new one.

The construction described is of a very simple, practical and durable type. The supporting parts of sheet metal are permanently secured together, preferably by spot welding. The parts of a towel rack which may become broken are the swinging bars which, with my invention are very easily replaced in the event that any bar is damaged and needs replacement without having to throw away the entire rack as is substantially a necessity with most towel racks of the same general type as that described now in use.

The invention is defined in the appended claims and is to be considered comprehensive of all forms of structure coming within their scope.

I claim:

1. A towel rack comprising, a vertically positioned support adapted to be attached to a wall, a towel rod support comprising an upper horizontal section, a downwardly and forwardly inclined section extending from the edges of said segmental section and a horizontal ledge extending from the lower edge of the inclined section, said inclined section having spaced apart bar receiving openings therein, hooks integral with and struck from said inclined section in a downward and rearward direction, one at each side of each of said bar receiving openings, thereby providing pin passing openings one at each side of each bar receiving opening, and bars passing through said bar receiving openings each having a pin extending transversely through its inner end and projecting beyond the sides of the bar and located back of said hooks, as specified.

2. A construction containing the elements in combination defined in claim 1, combined with downwardly extending spring fingers connected at their upper portions at the underside of said upper section and bearing one against the inner end portion of each bar.

3. In a towel rack, a vertical support, a bar support attached to and extending forwardly from said vertical support, said bar support being of sheet metal and including a downwardly and forwardly inclined section and a ledge extending horizontally at the lower edge of said downwardly inclined section, said downwardly inclined section having a plurality of bar receiving openings therein, bars extending one through each opening, rigid pivots carried by the inner ends of the bars, and retaining means for said pivots connected with and extending downwardly and inwardly from said inclined section of the bar support, one at each side of each opening.

4. In a towel rack, a vertical support, a bar support secured to and extending horizontally therefrom including an upper section, a downwardly and outwardly inclined section integral with the upper section, and a horizontal ledge integral with and at the lower edge of said inclined section, said inclined section having spaced apart bar receiving openings therein, each opening at each side thereof having a small branch opening at right angles thereto, a bar inserted at its inner end through each opening, pins carried by the bars adapted to pass freely through said branch openings, and means adjacent and back of each branch opening carried by said inclined section of the said bar support behind which said pins are located, as and for the purpose specified.

5. A construction containing the elements in combination defined in claim 4 combined with a plate of spring material secured underneath said upper section and spring fingers, one for each of said bars, integral with said spring plate and extending downwardly from the forward edges thereof adapted to bear against the inner end portions of said bars.

6. In a towel rack, a support including an upper horizontal section, a downwardly and outwardly inclined intermediate section and a horizontal ledge at the lower edge of intermediate section, said intermediate section having spaced bar receiving openings, bars extending at their inner ends through said openings, retaining means, one at each side of each opening, individual means carried by each of the bars adapted to engage back of said retaining means, and spring fingers, one for each bar located below the upper horizontal section and extending downwardly therefrom and bearing against the inner end portions of said bars.

7. In a towel rack, a towel bar support comprising upper and lower horizontal sections connected by downwardly and outwardly inclined intermediate section, said intermediate section having bar receiving openings, bars inserted at one end through said openings to rest upon the lower horizontal section and bear against the under side of said upper horizontal section, means for pivotally retaining said bars, and springs bearing against the inner ends of said bars when the bars are in horizontal position, said springs being yieldable to permit disengagement of the bars from said retaining means when the bars are tilted upwardly.

8. In a towel rack or the like, a support having bar receiving openings, bars inserted at one end through said openings, means attached to the inserted end of each bar, receiving means located on the support, each of said receiving means receiving the first mentioned means whereby the bars may be swung to a plurality of positions, spring means for urging each of the several bars in such directions as to cause yielding engagement between the means and the receiving means, and means for preventing disengagement between the last mentioned means when the bars are in a particular one of their several positions.

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