

## 2,156,748

# UNITED STATES PATENT OFFICE

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# DEVICE FOR SUPPORTING BARS AND THE

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### Application December 24, 1936, Serial No. 117,667

### 5 Claims. (Cl. 211-123)

This invention relates to a device for securing bars, such, for example, as towel bars, in operative position with reference to the fixtures or the like by which they are supported.

- One of the primary objects of this invention is to provide a device of the above mentioned character which will permit the ready removal of the bar for the purpose of repair or replacement whenever desired.
   A further object of the second seco
- A further object of the invention is to provide a device of the above mentioned character which may be economically manufactured and which, when used in supporting towel bars, will present a pleasing appearance.
   Numerous other objects and and appearance.
- Numerous other objects and advantages of this invention will become more apparent as the following description proceeds particularly when reference is had to the accompanying drawing wherein
- 20 Fig. 1 is a top plan view partly in section of a towel bar and supporting fixtures in which the invention is incorporated;

Fig. 2 is a front elevation of the structure shown in Fig. 1, the view being partly in section 25 and illustrating the method of associating the

bar with its supporting fixtures; Fig. 3 is an enlarged sectional view taken substantially on the line 3-3 of Fig. 1;

Fig. 4 is a view similar to Fig. 1 showing a 30 slightly modified arrangement;

Fig. 5 is an enlarged fragmentary sectional view taken substantially on the line 5-5 of Fig. 4;

Fig. 6 is a detail perspective view of one of the clements forming a part of the holding or sup-35 porting device; and

Fig. 7 is a side elevational view partly in section of a table leg securing device in which the invention is incorporated.

The general practice which has heretofore been 40 followed in attaching towel bar fixtures to tile walls has been to form the supporting brackets as tile members which are embedded in and form a part of the wall. The supporting bar which extends between the two brackets has generally 45 been secured in the brackets during the tiling of the wall, with the result that in the event of breakage of the towel bar, or if a change in the

color or design is desired, it is necessary to remove the two tiles which carry the brackets.
50 Such removal of the tiles and their associated brackets frequently results in breakage of the bracket bearing tile and for that reason the present invention will find particular utility when incorporated in a towel bar fixture since it pro55 vides for the ready removal of the towel bar

without disturbing the supporting brackets and the tiles with which they are integral.

Referring to the drawing wherein like reference characters designate corresponding parts throughout the several views, the numeral 10 designates a wall to which it is desired to secure a towel bar. In accordance with the usual practice, the wall may be covered with tiles 11, certain of these tiles designated by the reference character 12, carrying brackets 13 for supporting a towel bar 14. While the brackets may be of any desired construction, they are illustrated as being angularly bent toward each other at their ends to provide portions 15 in which sockets 16 for receiving the ends of the towel bar 14 15 are provided.

As illustrated in Fig. 1, the bar 14 is slightly longer than the distance between the inner faces 17 of the brackets 13 so that the ends of the bar project slightly into the sockets 16. For the purpose of fixing the bar against longitudinal movement after its ends have been inserted in the sockets, the bar is provided at each end with a groove or seat 20 and snapped into each groove 29 is a resilient ring or key member 21. It will be noted that the rings will be fixed against movement longitudinally of the bar by virtue of the fact that they fit in the grooves 20 and it will be noted additionally that each ring projects beyond the outer surface of the bar in a position to engage the face 17 of an adjacent bracket.

In assembling the bar with the brackets, one end of the bar is first inserted into the socket in one of the brackets, as illustrated in Fig. 2 of 35 the drawing. As illustrated in Fig. 3 of the drawing, there is sufficient clearance between the outer surface of the bar and the wall of the socket to permit the bar to be moved to a position where its other end is in alignment with the socket in 40 the other bracket. The bar is then moved to the right as viewed in Fig. 2 so that its free end is engaged in the bracket shown at the right hand side of the figure as will be apparent.

The grooves 20 in the bar are spaced apart a 45 distance such that the outer edges of the grooves are substantially aligned with the inner faces 17 of the brackets 13 with the result that when the bar is in position with its ends in the sockets 16, the rings 21 may be snapped in the grooves 20 50 thus securely fixing the bar against longitudinal movement in the sockets. Obviously, should the bar become broken or should it be desired to substitute for the bar in use one of a different color or design, the rings 21 may be removed from C3 embracing engagement with the bar and the bar then removed from the brackets.

In Figs. 4 and 5 there is illustrated a slightly modified form of construction in which the bar 5 14<sup>a</sup> instead of being supported at its ends is supported by a centrally disposed bracket. This bracket is designated by the reference character 25 and may, as illustrated, have as its base a tile 26 which may be embedded in a wall (not be bracket is provided with an open-

10 shown). The bracket is provided with an opening 27 which extends entirely through the bracket, the bar  $14^{a}$  fitting in the opening in the manner illustrated in Fig. 5.

In this modified construction the bar is pro-15 vided with grooves 20<sup>a</sup>, these grooves being spaced apart a distance such that the rings 21<sup>a</sup> engaged

- in the grooves abut the side faces 28 of the bracket. Thus it will be apparent that after the bar has been pushed through the opening in 20 the bracket 25, the rings 21<sup>a</sup> may be snapped
- 20 the bracket 10, the rings in the bar in the bracket. In Fig. 6 there is illustrated one form which the resilient ring or clip may assume. By reference to this figure it will be noted that the 25 securing member is substantially U-shaped, hav-
- 25 secting intensor and the legs 31. The member is made of resilient material such as wire, and the legs 31 are preferably sprung slightly toward each other, so that when the clip is en30 gaged in the groove in the bar, it grips the bar
- 30 gaged in the bids snugly in position. It might be noted further that the clip may be of the shape shown in Fig. 6 or any other desired shape depending entirely upon the cross sectional shape 35 of the bar which is utilized.
- Thus the invention may be utilized with bars of any type and of any desired cross sectional shape, it being only necessary that the embracing resilient member conform somewhat to the 40 cross sectional shape of the bar.
- While as previously mentioned, the invention will find particular utility when incorporated in a towel bar fixture, the invention may likewise be utilized wherever it is desired to secure a bar
- 45 in predetermined position with reference to a bracket or like holding member. Thus in Fig. 7 the invention is shown as being applied to a table leg, the numeral 35 designating a table top and the numeral 36 designating a table leg.
- 50 Secured to the underface of the table top as, for example, by screws 37 is a bracket 38 having a portion 29 which is spaced from the underface of the table. The portion 39 of the bracket is provided with an opening 40 through which the 55 and of the table leg extends to a position where
- end of the table leg extends to a position where the upper end 41 thereof abuts the underface of the table.
- To prevent withdrawal of the leg from the opening 40 in the bracket, the leg is provided with a groove 42 adapted to receive a ring 43 which engages the adjacent inner face 44 of the bracket 38. It will be understood that the groove 42 is spaced such a distance from the end of the
- 65 table leg that when the ring is in position it will engage the inner face of the bracket while the end of the table leg engages the underface of the table.

The bracket 38 will, of course, preferably be 70 one which is open at its sides so that the leg

70 one which is open as the through the opening
36 need merely be inserted through the opening
40 in the bracket and then the ring 43 snapped
in place. The invention, however, might be associated with a closed bracket, in which case,
75 of course, it would be necessary to assemble the

leg with the bracket prior to the securing of the bracket to the table by the screws **37**.

From the above it will be apparent that the invention provides a means whereby a bar may be fixed against longitudinal movement with respect to a supporting bracket or fixture. As has been pointed out, the invention will find particular utility when incorporated in devices for supporting towel bars in position, but the inventive principles are not necessarily limited to such 10 embodiments, but may be utilized for securing table legs or like members in position. Therefore, the word "bracket", whereever utilized in the specification and claims should be construed as meaning a fixture or member of any kind 15 whatever to which it is desired to secure a bar, while the word "bar" should be construed as meaning a solid or tubular member, of any desired cross sectional shape adapted to be secured to a fixture or the like. Thus the bar may be 20 a towel bar, or a table leg, or any similar member.

Additionally, it is to be noted that the grooves in the bar extend transversely of the bar and that the rings or clips which are seated in the grooves may extend substantially entirely around the **25** bar as illustrated in Fig. 3, or only partly around the bar as illustrated in Fig. 4. Obviously, if the clip extends only partly around the bar, the groove likewise need not completely encircle the bar. **30** 

While several embodiments of the invention have been illustrated and described in detail, it is to be understood that the description is for the purposes of illustration only and is not definitive of the limits of the inventive idea, the right being **35** reserved to make such changes in the details of construction and arrangement of parts as will fall within the purview of the attached claims. What is claimed is:

1. In a device of the character described, a pair of brackets fixedly mounted in spaced relation to each other, each bracket being provided with an opening, a bar having its ends located in said openings, and members embracing said bar adjacent the ends thereof, said members being fixed against movement longitudinally of the bar and each engageable with an exterior portion of one of the brackets so as to prevent longitudinal movement of the bar.

2. In a device of the character described, a 50 pair of spaced fixedly mounted supporting brackets, each bracket being provided with an opening, a bar extending between and having its ends disposed in said openings, the outer surface of the bar adjacent each bracket being provided 55 with a groove which extends around the bar, and a resilient member embracing the bar adjacent each end thereof, each resilient member being seated in one of the grooves and being arranged to engage the adjacent face of the bracket to limit 60 movement of the bar relative to the brackets.

3. In a towel rack, a bracket having a recess therein, a bar adapted to be inserted in said recess upon movement of the bar in a direction toward said bracket, said bar being provided 65 with a groove transverse to the longitudinal axis of the bar, and a clip removably seated in said groove and adapted to engage said bracket to limit movement of said bar into said recess in said direction. 70

4. In a towel rack, a bracket having a recess therein, a bar adapted to be inserted in said recess upon movement of the bar in a direction toward said bracket, said bar being provided with a groove transverse to the longitudinal axis of 75

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the bar, and a clip removably seated in said groove exteriorly of the bracket and adapted to engage an exterior portion of the bracket to limit movement of said bar into said recess in 5 said direction.

5. In a device of the character described, a pair of brackets fixedly mounted in spaced relation to each other, each bracket being provided with an opening, a bar having its ends located 10 in said openings, said bar having a groove adjacent each end thereof, said grooves being transverse to the longitudinal axis of the bar, and a resilient member seated in each of said grooves, said members being engageable with the faces of the brackets so as to prevent longitudinal 5 movement of the bar.

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