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WALL DISPLAY FIXTURE FOR THREADED PLUMBING ACCESSORIES

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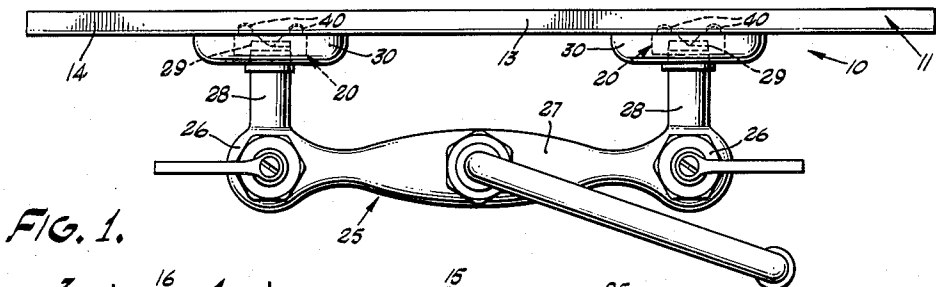


FIG. 1.

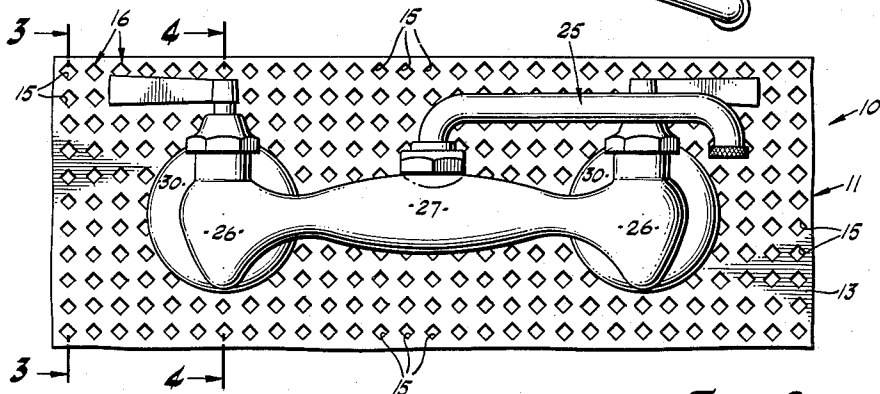


FIG. 2.

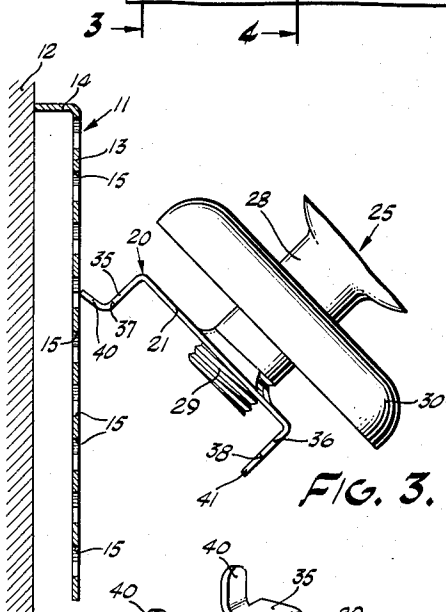


FIG. 3.

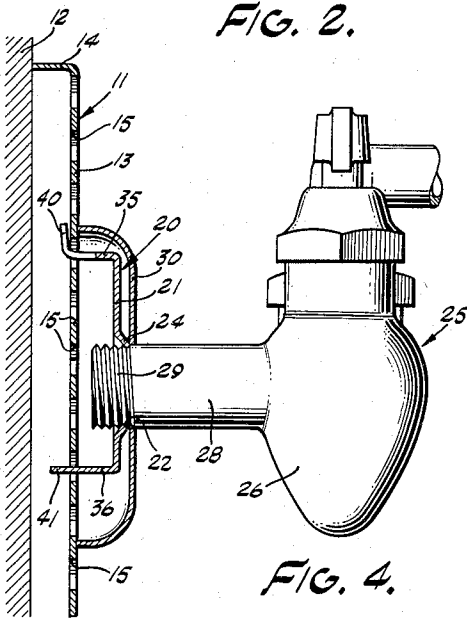


FIG. 4.

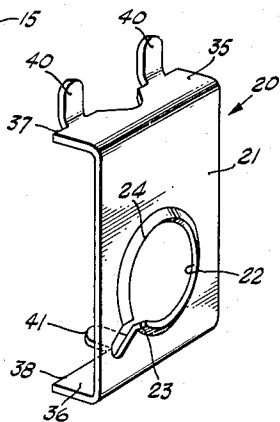


FIG. 5.

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WALL DISPLAY FIXTURE FOR THREADED PLUMBING ACCESSORIES

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4 Claims. (Cl. 211—87)

This invention relates to fixtures for removably mounting articles on a vertical wall to display these for sale.

It is an object of the invention to provide a wall display fixture which is adapted for the display of externally threaded plumbing accessories generally.

Another object is to provide such a fixture which is especially useful in the display of domestic faucets of either the single type or the dual hot-and-cold swing spout type.

The manner of accomplishing the foregoing objects as well as further objects and advantages will be made manifest in the following description taken in connection with the accompanying drawings in which

Fig. 1 is a diagrammatic plan view of a swing spout faucet mounted on a preferred embodiment of the wall display fixture of the invention.

Fig. 2 is a front elevational view of Fig. 1 showing the perforated panel of the wall fixture of the invention in the background.

Fig. 3 is an enlarged fragmentary operational view taken on the line 3—3 of Fig. 2 but illustrating an intermediate step in the application of said swing spout faucet to said wall panel in which the swing spout is canted upwardly at a 45° angle with said panel, with the threaded bracket screwed onto one of the threaded inlet pipes of said faucet and oriented relative to the swing spout so that feet provided on said bracket are disposed in alignment with certain of the perforations provided in said panel, and with the molding bell of that pipe slipped inwardly thereover so as to permit the assembly of the swing spout on the panel.

Fig. 4 is an enlarged cross sectional view taken on the line 4—4 of Fig. 2 and shows said swing spout faucet as when swung down into final position for mounting the same on said wall panel and with the adjacent bell slipped over the mounting bracket so as to cover the same and give a finished appearance to the swing spout corresponding to its appearance when mounted in actual use.

Fig. 5 is a perspective view of the internally threaded die-stamped sheet metal mounting bracket of the invention.

Referring specifically to the drawings, the wall display fixture 10 of the invention includes a wall panel 11 which is adapted to be secured in any desired manner on a permanent wall 12 and which preferably comprises a sheet of metal 13 having border flanges 14 which space said sheet from said wall. The sheet 13 is provided with a mass of perforations 15 which are preferably arranged in a plurality of vertical rows 16 of said perforations, with the perforations 15 in each row spaced with their centers uniformly a given distance apart, the center lines of each adjacent pair of said rows 16 likewise being spaced apart said given distance.

The wall display fixture 11 also includes one or more brackets 20. This bracket is preferably formed by die-stamping the same out of sheet metal and includes a flat body 21 having a round hole 22 formed therein with the edge of this hole broken by a notch 23 extending a short

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distance radially from said edge. The metal of said body adjacent said hole is deformed by die-stamping to produce a helical thread 24. A variety of brackets 20 are provided with threads 24 of different diameter and pitch so as to be suitable for use in displaying plumbing accessories of various types which differ in the diameter and pitch of the male threads provided on these.

For the most part, however, the brackets 20 will have threads 24 which match the male threads on a 3/4" pipe with which the intake pipe of faucets in most common use are equipped. The brackets 20 are adapted to be used with any kind of plumbing accessory having a male threaded intake pipe which includes almost all varieties of faucets, and the drawings illustrate a pair of said brackets employed in mounting a swing spout 25 having a pair of faucets 26 joined by a common outlet pipe 27 and provided with individual intake pipes 28 having male threads 29. The intake pipes 28 of the swing spout 25 are provided with molding bells 30 which snugly fit but are slidable on the pipes 28.

Formed by die-stamping process from upper and lower edges of the body 21 of each bracket 20 are upper and lower spacing flanges 35 and 36, edges 37 and 38 of which are adapted to bear against the panel 11 to space the bracket body 21 from said panel when the bracket 20 is applied to the panel and thereby provide room between the body 21 and the panel 11 for that portion of the threads 29 which extend inwardly through the threaded hole 22.

Also formed in the stamping process to extend inwardly and upwardly from the edge 37 of the upper spacing flange 35 are locking feet 40. There are preferably two of the locking feet 40 and these are spaced apart twice the spacing of the centers of adjacent vertical rows 16 of perforations 15 so that the feet 40 are adapted to fit into the perforations 16 on the same level and formed in alternate vertical rows 16.

Also formed in the stamping process, but from the edge 38 of the lower spacing flange 36, is a torque resisting foot 41 which lies in the plane of the flange 36 and the center of which also lies in the vertical plane which bisects the space between the feet 40. The flanges 35 and 36 are preferably disposed apart a distance which represents a multiple of the given distance adjacent perforations 15 are spaced apart in any of the rows 16 thereof, the spacing between said flanges in the preferred illustrated embodiment of the bracket 20 being four times said given distance.

By virtue of this relationship between the flanges 35 and 36 and the central location of the torque resisting foot 41 on the flange 36 causes said foot to be disposed opposite, and therefore to penetrate a certain one of the perforations located on the same level as the lower flange 36 when the bracket 20 is applied to the wall panel 11 as shown in Fig. 4.

Operation

As the intake pipes 28 of the swing spout combination faucet 25 are formed integral with each other, the first step in mounting this accessory on wall panel 11 is to force the molding bell 30 inwardly along the pipes 28 as shown in Fig. 3 and then screw the two brackets 20 onto the external threads 29 on these pipes so that the flanges 35 of the two brackets will be disposed upwardly and lie in the same plane. The swing spout 25 is then tilted at an angle of approximately 45° relative to the wall panel 11 as shown in Fig. 3 and the feet 40 of the two brackets 20 are inserted upwardly at this angle through corresponding perforations 15 which comprise part of a given horizontal row of said perforations. When the feet 40 are inserted as far as possible at this angle in said perforations, the swing spout 25 in brackets 20 are pivoted downwardly

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about said feet until the feet 41 formed on the lower flanges 36 of said brackets penetrate perforations 15 in the wall panel 11 as the edge 38 of these flanges engages said wall panel. This halts the downward swinging of said brackets and swing spout accessory with the latter positioned as shown in Fig. 4 with the pipes 28 horizontal, just as this accessory is installed in a domestic water system.

To give the swing spout 25 the appearance of being permanently mounted when it is presented for display, the molding bells 30 are now slid along the pipes 28 until they completely cover the brackets 20 and engage the wall panel 11 with the peripheries of said bells. It is to be noted, of course, that the brackets 20 are made so as to fit within and be entirely covered by the molding bells 30 when the swing spout 25 is thus temporarily mounted for display on the wall panel 11.

Other types of plumbing accessories, particularly faucets, and which are provided with externally threaded intake pipes similar to the pipes 28 of the swing spout 25 but which have only a single intake pipe for each accessory, are generally provided with molding bells such as the bell 30 which may be shifted, as above noted, in the final step in the mounting of such an accessory on the panel 11 to completely cover and hide from view a single bracket 20 on which this accessory is supported.

It is unnecessary, however, in mounting such an accessory having only a single externally threaded intake pipe 28, to remove the bracket 20 from the wall panel 11 in order to screw said bracket onto the external threads of said intake pipe. Instead of this, the bracket 20 upon which it is intended to mount said accessory may be already applied to the wall panel 11. The accessory to be mounted upon this is prepared for this by the molding bell thereof (corresponding to the bell 30) being slipped back along the intake pipe thereof, and the accessory is then advanced with the threads of the latter aligned with the thread 24 of said bracket 20 and the accessory rotated about the axis of its intake pipe to screw the latter into the bracket thread 24. The assembly of this accessory is completed by shifting the molding bell thereof against the wall panel 11 and in covering relation with the bracket 20 supporting this accessory.

The removal of any accessory from the panel 11 is, of course, effected by a mere reversal of the steps above described for mounting the same thereon. Thus in removing the swing spout accessory 25 from the wall panel 11, the first step is to slip the molding bells 30 along the pipes 28 to free the assembled accessory and two brackets 20 on which it is mounted for rocking upwardly into a position of 45° relative to the wall panel 11, and then slipping the feet 40 out of the wall panel as shown in Fig. 3, after which the brackets 20 may be individually rotated to unscrew these from the intake pipes 28 of the swing spout device 25.

When removing an accessory having a single intake pipe, however, it is merely necessary to rotate the accessory which unscrews the latter from the bracket 20 supporting the same and entirely frees the accessory from the bracket and leaves the molding bell 30 on the intake pipe of the accessory.

The present invention is thus seen to provide a simple, inexpensive and durable wall display fixture affording special facility in the display of threaded plumbing accessories such as faucets, swing spouts, shower heads and the like.

Although only a single embodiment of the invention is disclosed, it is believed evident that this is susceptible of substantial modification without departing from the spirit of the invention or the scope of the appended claims.

The claims are:

1. In a wall display fixture for displaying threaded plumbing accessories and the like on a wall panel having parallel vertical rows of perforations formed therein, the centers of said rows and the perforations therein

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being both uniformly spaced a given distance, the combination of a sheet metal bracket having a flat body in which a hole is formed, the edge of which hole is interrupted by a radial notch, said edge being helically deformed throughout its periphery on opposite sides of said notch to form an internal thread matching the threads on an externally threaded pipe of a plumbing accessory; a pair of spacing flanges bent substantially perpendicularly from upper and lower ends of said body and having edges adapted to engage said panel to space said body therefrom; a pair of interlocking feet extending inwardly and upwardly from the panel engaging edge of the upper of said spacing flanges, said feet being spaced apart a distance equal to said given distance multiplied by a whole number, said feet being adapted to be extended through a selected pair of said perforations correspondingly spaced apart with said edge of said flange disposed horizontally and with said body obliquely disposed relative to said panel, and the latter then rocked downwardly to bring said lower flange into engagement with said panel, thereby temporarily mounting said bracket on said panel in a selected position, the vertical spacing between said spacing flanges being equal to said given distance multiplied by a whole number; and a torque absorbing foot provided on the panel engaging edge of said lower flange and forming a continuation thereof, the position of said torque absorbing foot being so related to the interlocking feet provided on said upper flange as to extend into one of said perforations of the row thereof located on the level on which said panel is engaged by said lower flange, said torque absorbing foot co-operating with said interlocking feet to resist rotation of said bracket relative to said panel when an accessory is being screwed into or out of said thread in said body, said flanges forming a chamber of substantial depth between the wall panel and the bracket body for accommodating said accessory when the latter is screwed through said hole.

2. In a wall display fixture for displaying threaded plumbing accessories and the like on a wall panel having parallel vertical rows of perforations formed therein, the centers of said rows and the perforations therein being both uniformly spaced a given distance, the combination of a sheet metal bracket having a flat body in which a hole is formed, the edge of which hole is interrupted by a radial notch, said edge being helically deformed throughout its periphery on opposite sides of said notch to form an internal thread matching the threads on an externally threaded pipe of a plumbing accessory; a pair of spacing flanges bent substantially perpendicularly from upper and lower ends of said body and having edges adapted to engage said panel to space said body therefrom; and a pair of feet extending inwardly and upwardly from the panel engaging edge of the upper of said spacing flanges, said feet being spaced apart a distance equal to said given distance multiplied by a whole number, said feet being adapted to be extended through a selected pair of said perforations correspondingly spaced apart with said edge of said flange disposed horizontally and with said body obliquely disposed relative to said panel, and said body then rocked downwardly to bring said lower flange into engagement with said panel, thereby temporarily mounting said bracket on said panel in a selected position.

3. In a wall display fixture for displaying threaded plumbing accessories and the like on a wall panel having parallel vertical rows of perforations formed therein, the centers of said rows and the perforations therein being both uniformly spaced a given distance, the combination of a sheet metal bracket having a flat body in which a hole is formed, the edge of which hole is interrupted by a radial notch, said edge being helically deformed throughout its periphery on opposite sides of said notch to form an internal thread matching the threads on an externally threaded pipe of a plumbing accessory; a pair of spacing flanges bent substantially perpendicularly from

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upper and lower ends of said body and having edges adapted to engage said panel to space said body therefrom; and foot means provided on the upper of said spacing flanges and adapted to be inserted into and interlock with certain of said perforations to temporarily support said bracket on said panel.

4. In a wall display fixture displaying for threaded plumbing accessories and the like on a wall panel having parallel vertical rows of perforations formed therein, the centers of said rows and the perforations therein being both uniformly spaced a given distance, the combination of a sheet metal bracket having a flat body in which a hole is formed, the edge of which hole is interrupted by a radial notch, said edge being helically deformed throughout its periphery on opposite sides of said notch to form a thread matching the threads on an externally threaded pipe of a plumbing accessory; and means for spacing said body from said panel and having a plurality of feet formed thereon and adapted to be extended into

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and interlock with a selected corresponding number of said perforations and to inter-engage therewith when said bracket is rocked relative to said panel, to temporarily support said bracket in a selected position on said panel; and to resist rotation of said bracket by an accessory being screwed into or out of said hole.

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