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J. M. WILSON

INDEXED HANDLE STRUCTURE

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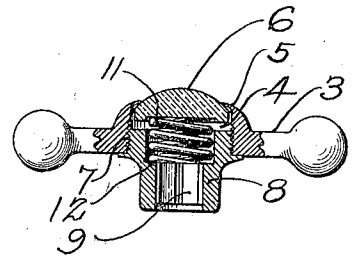


FIG. 1

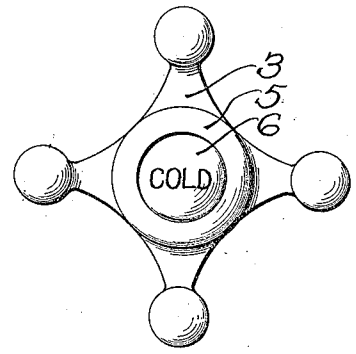


FIG. 2

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UNITED STATES PATENT OFFICE.

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INDEXED HANDLE STRUCTURE.

Application filed November 9, 1921. Serial No. 513,913.

To all whom it may concern:

Be it known that I, JAMES M. WILSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Indexed Handle Structures, of which the following is a specification.

This invention relates in general to faucets, cocks, valves or the like and has more particular reference to an indexed handle structure therefor adapted for use in lavatories and other places where it is desirable that the cocks or faucets be equipped with an index member from which it may be determined by inspection whether the faucet is adapted to supply hot or cold water.

In cocks or faucets of this type the index member itself is customarily made of porcelain or china and considerable loss has been incurred in the manufacture or repair of these handles as the result of breakage of the index members when they are being fastened in position. According to some methods of manufacture the handle member is provided with a socket in which the index member is positioned, whereupon the metal of the handle member surrounding the socket is spun inwardly forming a flange embracing the upper margin of the index member to hold the same in position. The spinning of this flange results in frequent breakage of the index members or buttons.

Another construction provides a bore extending entirely through the handle member and having an integral marginal flange at its upper end beneath which the index button is positioned, the button being inserted into the bore from the lower end thereof and clamped against the flange by threading a member into the bore of the flange. While the breakage of the index buttons is less in this construction, nevertheless, a considerable number of buttons are broken or chipped as a result of clamping them too tightly between the holding member and the marginal flange, and if the holding member is not screwed far enough into the bore, the index button is loose and an unsanitary pocket is left between the upper margin of the button and the surrounding flange.

My present invention contemplates the provision of a handle structure which is adapted to overcome the objectionable features of the structures heretofore used, and with this end in view it contemplates the employment of a spring which yieldingly urges the index member against the marginal flange, thus holding it snugly in position so as to preclude any unsanitary pockets between the button and the flange and at the same time obviates danger of breakage of the button during assembly of the structure, and furthermore yieldingly retains the button in position so that it may be rotated relatively to the handle member so as to dispose the reading matter thereon in the proper position when the faucet is closed.

Other objects and inherent advantages of this invention should be readily appreciated as the same becomes better understood by reference to the following description, when considered in connection with the accompanying drawings.

Referring to the drawings—

Fig. 1 is a longitudinal sectional view through a handle structure embodying my invention; and

Fig. 2 is a plan view thereof.

Referring to the drawings more in detail, reference character 3 indicates generally a handle member which may be of any preferred shape and size, and while these handle members are in many instances elongated into truly handle form, I have shown herein for purposes of illustration merely, a handle member in the form of a rimless wheel. Obviously, however, the shape of the handle may be varied within wide limits and it is to be understood that the term "handle member" as herein used is employed generically and is not restricted to any specific form of member.

The handle member has a bore 4 therethrough and is provided at the upper end of the bore with an inwardly extending flange 5 formed integrally with the member and adapted to retain the index member or button 6 against upward displacement.

The index member is made of porcelain or china, as is customary, and is provided on its exposed face with suitable indicia, such as the words "Hot" or "Cold" which are exposed to view to the users of the faucet.

The lower end of the bore 4 is interiorly threaded as indicated at 7 for the reception of a threaded member 8 forming the hub of the handle member, this member 8 being adapted to be attached to the upper end of

the valve stem of the cock or faucet to which the handle structure is applied. Various methods of attachment of this member to the stem may be employed, such as threading the member onto the upper member of the stem for instance, but as shown herein, the bore of the hub member 8 is polygonal in shape as indicated by reference character 9 to fit the similarly shaped end of a valve stem. It will be observed that the upper end of the member 8, when the member is fully inserted into the handle member, is spaced an appreciable distance from the lower face of the index member 6, and for the purpose of holding the index member 6 against the flange 5, a coiled expansion spring 11 is interposed between the member 8 and the member 6. In order to accommodate a spring of the desired length, the upper end of the bore in the member 8 is somewhat enlarged and provides an annular shoulder 12 upon which the lower end of the spring 11 rests.

In assembling the structure, the index member 6 is first positioned in the bore from the lower end thereof, whereupon the member 8 with the spring 11 positioned therein as shown, is threaded into the bore, thus compressing the spring between the member 8 and the index button with the result that the button is yieldingly urged against the flange 5 and retained in position without danger of breakage as the result of excessive pressure exerted thereon. This construction not only obviates danger of breakage of the buttons in assembling the structures, but also yieldingly retains the buttons in position, so that they may be rotatably adjusted within the handle member by simply pressing downwardly upon the exposed face of the button and imparting to it a rotary movement so as to expose the indicia in the proper position to be read when the faucet is in closed position.

It is believed that my invention and many of its attendant advantages will be understood and appreciated from the foregoing without further description, and it should be manifest that the invention is not circumscribed by the details of construction herein shown, but is capable of wide modification without departing from the essence of the invention as defined in the following claims.

I claim:

1. An indexed handle structure, comprising a handle member provided with a bore and having an inwardly extending flange at the upper end of the bore, an index member positioned in said bore and marginally engaged by said flange, and means for yieldingly urging said index member against said flange whereby said member is adjustably retained in position.

2. An indexed handle structure, comprising a handle member having a bore extending therethrough and provided at the upper end of the bore with an inwardly extending flange, an index member positioned in said bore beneath said flange, and a spring for yieldingly urging said index member against said flange.

3. An indexed handle structure, comprising a handle member having a recess and provided at the upper end of the recess with an inwardly extending flange, an index member positioned in said recess beneath and engaged by said flange, a member engaged with said handle member beneath said index member, and a spring interposed between said last-named member and said index member for yieldingly retaining said index member in position.

4. An indexed handle structure, comprising a handle member provided with a central bore, an index member arranged within the bore of said handle member and marginally engaged by an inwardly projecting flange formed on said handle member, and a spring yieldingly urging said index member against said flange whereby the index member is retained in position while capable of rotary adjustment relatively to the handle member.

5. An indexed handle structure, comprising a handle member having a bore therethrough and provided at the upper end of the bore with an inwardly extending flange, an index member positioned in said bore from the lower end thereof, a member threaded into the lower end of the bore beneath the index member, and a coiled expansion spring interposed between said last-named member and said index member for yieldably retaining said index member in position.

6. An indexed handle structure, comprising a handle member, and an index member adjustably mounted in said handle member and yieldably retained in position with its indexed face exposed to view at the upper end of the handle member.

JAMES M. WILSON.