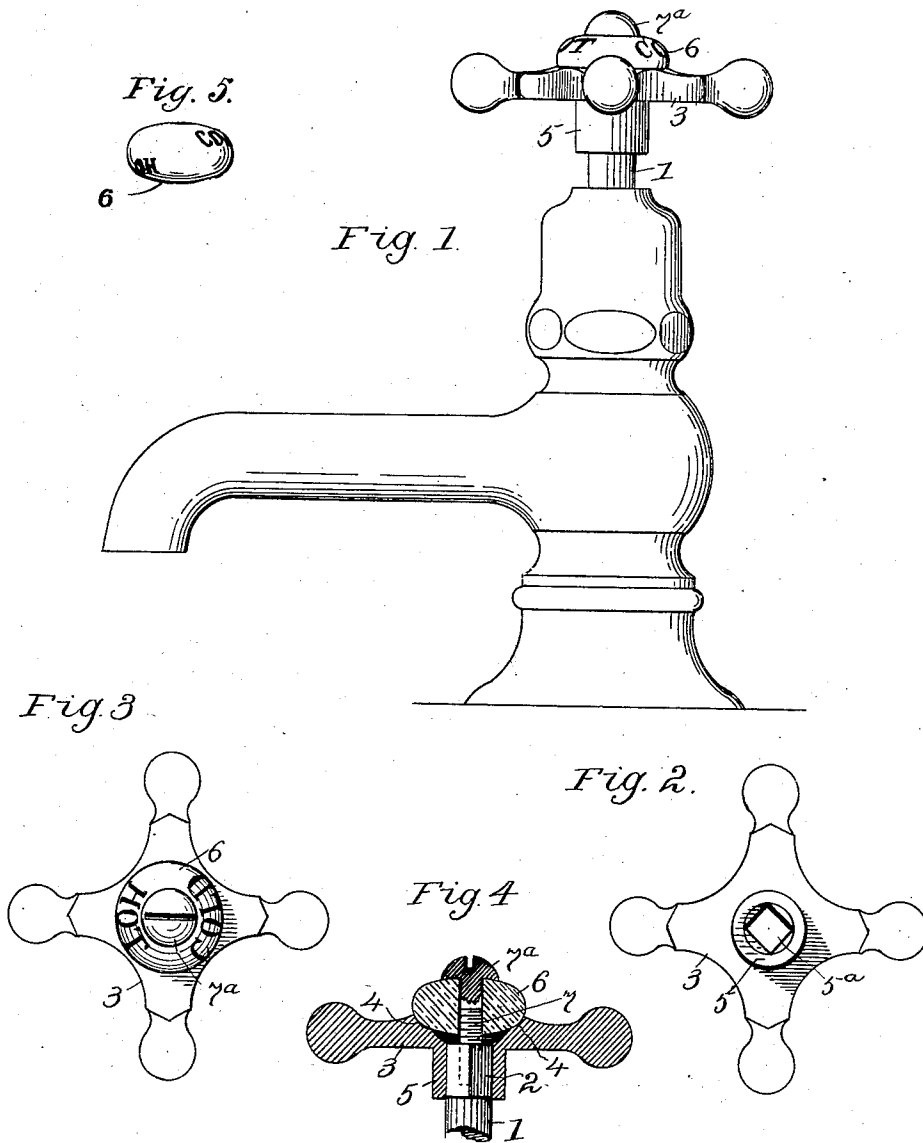


A. C. SCHUERMANN.
 REVERSIBLE INDEX FOR COCKS.
 APPLICATION FILED OCT. 22, 1906.

910,320.

Patented Jan. 19, 1909.



Witnesses.
 Mrs. C. Graham
 Nora Graham

Inventor,
 Anton C. Schuermann.
 by L. P. Graham
 his attorney.

UNITED STATES PATENT OFFICE.

ANTON C. SCHUERMANN, OF DECATUR, ILLINOIS, ASSIGNOR TO H. MUELLER MANUFACTURING COMPANY, OF DECATUR, ILLINOIS, A CORPORATION OF ILLINOIS.

REVERSIBLE INDEX FOR COCKS.

No. 910,320.

Specification of Letters Patent.

Patented Jan. 19, 1909.

Application filed October 22, 1906. Serial No. 340,106.

To all whom it may concern:

Be it known that I, ANTON C. SCHUERMANN, a resident of the city of Decatur, county of Macon, and State of Illinois, have invented certain new and useful Improvements in Reversible Indexes for Cocks, of which the following is a specification.

The object of this invention is to provide the handles of valve stems of cocks with reversible index, or indicator, buttons and to incorporate the buttons in the handles as a part of the necessary structure thereof.

The present invention is an improvement over U. S. Patent No. 857957 which covered a fixed cock body, an index button mounted thereon for rotary adjustment, and indications on its upper face at opposite sides of its center. Not only do I mount the button on a rotary or oscillatory part of the cock by means peculiar to this invention, but I provide indications on both its faces so that it may be inverted or reversed and I make the button seat so large as to effectively conceal whatever indication may exist on the lower face. These ideas are exemplified in the structure hereinafter described and defined in the appended claims.

In the drawings forming part of this specification Figure 1 is a side elevation of a basin cock provided with my improved index handle. Fig. 2 is a plan of the under surface of a handle adapted for use with an index button in accordance with my invention. Fig. 3 is a plan of the upper surface of my combined handle and button. Fig. 4 is a central vertical section through the button and handle, showing the relation of the same to the valve stem. Fig. 5 is an edge view of the button in its preferred form.

A rotary valve stem is shown at 1 and at 2, in Fig. 4, is shown a squared end of the valve stem which acts as a seat for the handle 3. The handle may be of any general shape consistent with proper turning of the valve stem and it has peculiarities as follows:—A boss, or collar, 5 projects downward from the center of the handle and it has a square socket 5^a, as shown in Fig. 2, which conforms to the squared end 2 of the valve stem 1. The upper surface of the handle is concaved concentric with the axis of socket 5^a and the concavity is shaped to form the seat 4 for the index button 6.

The button is shown herein as and is by preference made convexo-convex so that either flattened face is better adapted to rest against the seat 4, and it is centrally bored through its shortest diameter to admit the screw 7. It is provided with suitable designations such as "Hot" and "Cold", which may be placed on one face but on diametrically opposite sides of the axis, or on opposite faces of the button (*i. e.*, top and bottom), or on both opposite sides and opposite faces as shown in Fig. 5.

The squaring of the end of the valve stem leaves shoulders against which the boss 5 of the handle bears, the squared end of the handle terminates below the button while the button is sustained by the circumferential edge of seat 4 which—as seen in Fig. 4—is preferably of greater concavity than the convexity of the button, and the screw 7 extends through the button and into the end of the valve stem while its head 7^a bears against the central part of the upper face of the button. Pressure of the screw head against the central part of the button presses the under face of the button firmly against the circumferential seat 4 and is thence transmitted through the handle to the shoulders of the stem. Consequently the screw and the button act to secure the handle firmly on the stem and the handle and the screw clamp the button securely against rotary displacement.

The central location and small size of the screw head permit complete and convenient exposure of the designating characters, leaving them presented in positions to be most easily read under ordinary manipulation of the handle, and the larger size of the seat conceals all designating characters on the lower face of the button.

The button may be shifted by loosening the screw and turning the button around with the screw for an axis, or the screw may be withdrawn, the button shown in Fig. 5 turned upside down and adjusted properly and the screw be replaced and tightened.

The button is an operative element in securing the handle on the stem or other rotary or oscillatory part of a cock, and it is also of utility in enabling a cock to be used for a plurality of purposes. The improvement is particularly applicable to right-and-

left cocks, or to cocks which are neither right nor left, as cross-handle compression cocks for instance, but it may have some utility in other environments and I do not restrict its use to any particular kind of cock.

By the use of my improvement the necessity for carrying in stock a selection of special cocks for each separate use is largely obviated.

When the cock is used for hot water the word "Hot" is exposed, or presented in a conspicuous position, and when the cock is used for cold water the word "Cold" is made conspicuous. If both words are on the same face of the button this is done by adjusting it so that the proper word shall stand toward the user when the valve stem or movable member is in its normal position (*i. e.* before it has been turned); but if the words occur on opposite faces as in my preferred form, the button is reversed or inverted, and possibly also set axially, to expose the proper one and conceal the other. If the cock should be applied to other uses the button would be provided with words or characters indicating such uses and the operation would be the same as hereinbefore described.

While it is preferable that the end 2 of the valve stem shall be square in cross section, it is obvious that any non-circular form, or form that will prevent a corresponding handle socket from turning thereon, will meet the purpose of my improvement. So, throughout the specification and claims the term "square," when applied to the valve stem and handle socket, is used in the sense of non-circular.

The squared end of the valve stem is bored axially and internally screw-threaded to receive the screw 7.

I claim,—

1. A reversible index button for the purpose described, comprising a body centrally bored and inscribed with different indications on its opposite faces; combined with a support, and a screw passing through the button and holding it on the support, the screw head exposing the upper indication and the support concealing the lower.

2. A reversible index button for the purpose described, comprising a body centrally bored and inscribed with different indications on its opposite faces and at opposite sides of the axis from each other; combined with a support, and a screw passing through the button and holding it on the support, the screw head exposing the upper indication.

3. A reversible button for the purpose described, comprising a convexo-convex body centrally bored and inscribed with different indications on its opposite flattened faces; combined with a support, and a screw pass-

ing through the button and holding it on the support, the screw head exposing the upper indication and the support concealing the lower.

4. A reversible button for the purpose described, comprising a convexo-convex body centrally bored and inscribed with different indications on its opposite flattened faces and at opposite sides of the axis from each other; combined with a support, and a screw passing through the button and holding it on the support, the screw head exposing the upper indication.

5. A reversible index button for the purpose described, comprising a convexo-convex body provided with different indications on its different flattened faces; combined with a cock having a stem, and means for clamping the button thereon.

6. A reversible index button for the purpose described, comprising a convexo-convex body provided with different indications on its different faces and at opposite sides from each other; combined with a cock having a stem, and means for clamping the button thereon.

7. A reversible index button for the purpose described, comprising a convexo-convex body inscribed with different indications on its opposite faces; combined with a concave seat for the same of a size to conceal the indications on its lower face, and means for clamping the button thereon so that only the indications on its upper face will be exposed.

8. A reversible index button for the purpose described, comprising a convexo-convex body inscribed with different indications on its opposite faces; combined with a rotary support for the same, and means for clamping the button adjustably thereon so that but one indication will confront the user when the support stands in its normal position.

9. A reversible index button for the purpose described, comprising a body inscribed with different indications on its opposite faces; combined with a support for the same of a size to conceal the indications on its lower face, and means for clamping the button thereon so that but one indication on its upper face will confront the user.

10. In a cock, the combination with a rotary valve stem having a shoulder and in its extremity a threaded hole; of a handle adapted to fit on the stem, and against its shoulder, the handle having a seat in its upper side, a reversible index button adapted to the seat, and a screw passing through the button, the seat and handle, and into said hole and holding the parts detachably connected.

11. In a cock, the combination with a rotary valve stem having a shoulder and in its extremity a threaded hole; of a handle having a boss provided with a socket adapted

to fit on the stem and against its shoulder, the handle having a concave seat in its upper side, a reversible index button having rounded upper and lower faces adapted to the seat and bored, and a screw passing through the bore of the button, the seat and handle, and into said hole and holding the parts detachably connected.

12. In a cock, the combination with a rotary valve stem reduced and squared at its upper end and provided in the squared extremity with a threaded hole; of a handle having a boss provided with a squared socket adapted to fit said squared end and against the shoulder between the latter and the stem and also provided with a concave seat, a screw whose tip enters said threaded hole, and a convexo-convex button of greater diameter than the seat or the head of the screw and provided with different indications, any one of which may confront the user, said button being bored for the passage of the shank of the screw and clamped between said head and seat substantially as described.

tween said head and seat, substantially as described.

13. In a cock, the combination with a rotary valve stem squared at its upper end and provided in the squared extremity with a threaded hole; of a handle adapted to fit said squared end and also provided with a concave seat, a screw whose tip enters said threaded hole, and a convexo-convex button of greater diameter than the head of the screw and provided with different indications any one of which may confront the user, said button being bored for the passage of the shank of the screw and clamped between said head and seat substantially as described.

In testimony whereof I sign my name in the presence of two subscribing witnesses.

ANTON C. SCHUERMANN.

Witnesses:

L. P. GRAHAM,
JOHN L. WADDELL.