



# UNITED STATES PATENT OFFICE.

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## STOP-COCK.

SPECIFICATION forming part of Letters Patent No. 646,707, dated April 3, 1900.

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*To all whom it may concern.*

Be it known that I, JOSEPH REGAR, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Stop-Cocks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

My invention relates to stop-cocks such as are used in water and gas piping, &c.; and its object is to provide an efficient method of connecting the plug with its operating mechanism and of rendering it universally adjustable, all of which will be more fully described hereinafter and definitely set forth in the claims.

In the drawings clearly illustrating my invention, Figure 1 is a side elevation of a cock in which my invention is shown, partly in section. Fig. 2 is a perspective of my stop-bracket, and Fig. 3 is a top plan of the plug of the cock.

This invention is particularly applicable to those forms of plug-cocks in which the rotation of the plug is limited by a downwardly-projecting dog rigid with the plug, contacting with the lugs upon the cock-body. It is desirable to have the dog separable from the plug, so that its relation thereto may be changed, as when the cock is reversed as to which end drains. Moreover, by having the dog separate the parts may be more simply cast and the plug may be turned on a lathe more easily. My invention provides a simple and efficient method of connection for the bracket carrying the dog, the plug, and the operating-lever.

Referring to the drawings, A represents a cock-body of a common form. It has a tapered bore in which is fitted the tapered turning plug B, and an upper annular flange  $a'$ , on which are radially-projecting lugs  $a''$ , designed to act as stops for the downwardly-projecting dog  $d$ , which in operation is rigid with the plug.

In applying my invention I provide a separate member D, which I call a "stop-bracket," which is adapted to be secured to the plug and carries the dog. In its preferred form the stop-bracket has an angular body  $d^3$ , from which projects an integral lateral arm  $d^2$ ,

which carries integrally the downwardly-projecting dog  $d$ . The lower end of this body  $d^3$  and the upper face of the plug are provided the one with an angular socket and the other with a projection coincident therewith. Thus, as shown in the drawings, a square socket  $d^5$  is formed in the stop-bracket and a corresponding projection  $b$  on the plug B. The socket  $d^5$  is terminated by the partition  $d^7$ , which also forms the bottom of the socket  $d^6$  above, which is also of some definite shape, preferably square.

In assembling the parts the stop-bracket D is applied to the plug, the recess  $d^5$  and the boss  $b$  coinciding, and these two parts are then locked together by a screw G, which passes through an opening  $d^8$  in the partition  $d^7$  into the plug B. The operating member or lever L is provided at its inner end with the head  $l$  fitting the socket  $d^6$ , and when inserted therein is secured by a set-screw S, mounted in a boss  $d^4$  in the side of the stop-bracket. The presence of the lever-head  $l$  immediately above the screw G prevents the accidental loosening of that screw, wherefore the screw S, which locks the lever, operates (through the intervention of the head  $l$ ) as a set-screw for the screw G. This makes a very simple, neat, and efficient connection between the bracket and the plug.

As will readily appear, the position of the lever L can be altered with reference to the body by changing its position in the bracket, whereby it may avoid any obstruction to its movement, as when the pipe runs close to a wall for instance, while by changing the position of the stop-bracket on the plug the latter by its openings may connect the drain opening  $a$  with either end of the cock-body, as desired.

Having described my invention, I claim—

1. In a cock, the combination of a turning plug, a stop-bracket, said two members having, the one an angular projection, and the other socket coinciding therewith, locking means for securing said members against longitudinal detachment, a separable operative member, means for securing said member to said stop-bracket in a position whereby it prevents the disengagement of said locking means, a cock-body embracing the plug and carrying stops with which said stop-bracket

is adapted to engage, substantially as specified.

2. In a cock, the combination of a cock-body, a turning plug mounted therein, said  
5 plug having on its upper face a central angular projection, a stop-bracket having two angular sockets with a partition between them forming the bottom of each, the lower socket  
10 fitting over said projection upon the plug, a screw connecting the plug and said bracket through the said partition, an operating member having a projection fitting into the upper  
15 socket, said stop-bracket having a projecting dog adapted to contact with stop-lugs upon the cock-body, substantially as specified.

3. In a cock, the combination of a cock-body carrying stop-lugs, a turning plug therein, said plug having centrally on its upper

face an angular boss, a stop-bracket having an upper and a lower socket with a partition between them, said lower socket cooperating  
20 with said boss, a screw connecting the stop-bracket with said plug through the said partition, a lever having an angular head seating in the upper socket, and retaining said  
25 socket therein, a set-screw carried by said stop-bracket having an arm carrying a projecting dog, which dog is adapted to contact with the said stop-lugs upon the cock-body, substantially as specified.

In testimony whereof I hereunto affix my  
signature in the presence of two witnesses.

JOSEPH REGAR.

Witnesses:

ALBERT H. BATES,  
E. L. THURSTON.