No. 756,526. PATENTED APR. 5, 1904.

S. RESEK.

STOP COCK.

APPLICATION FILED JAN. 13, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

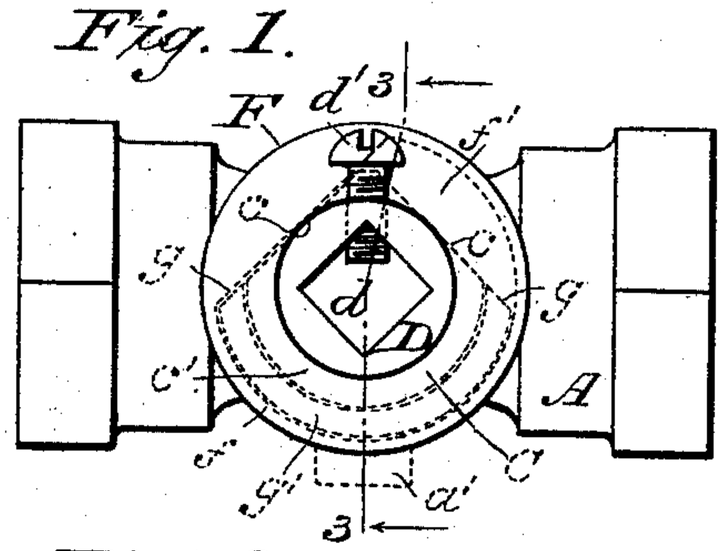


Fig. 2.

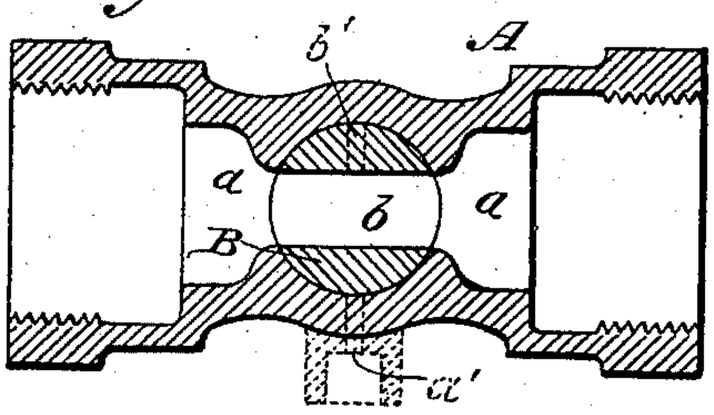


Fig. 3.

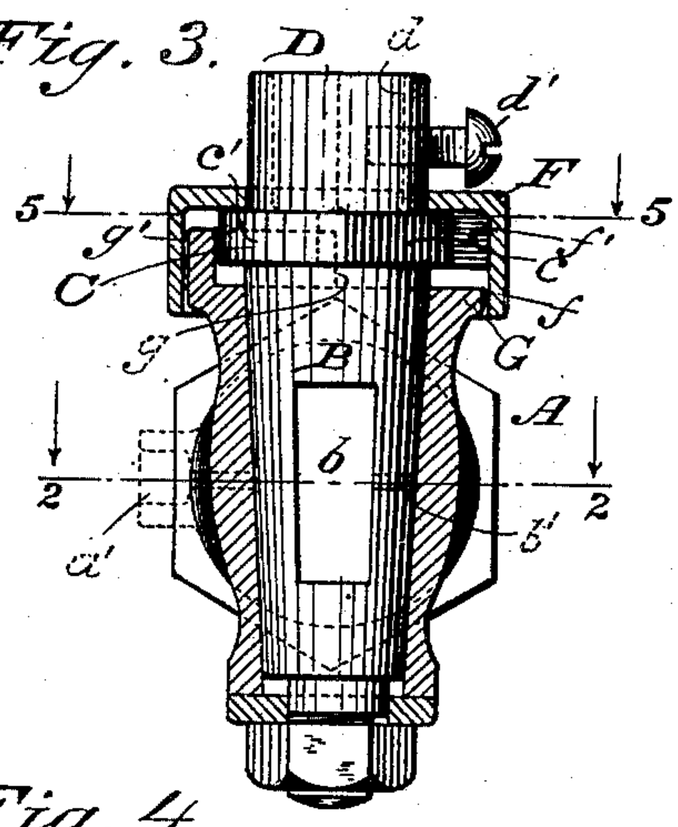


Fig. 4.

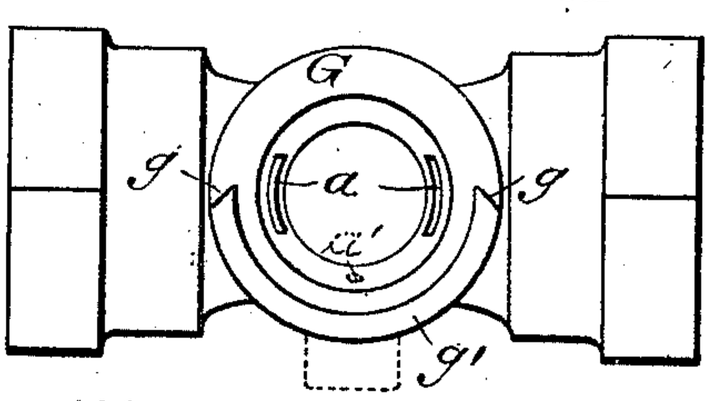


Fig. 5.

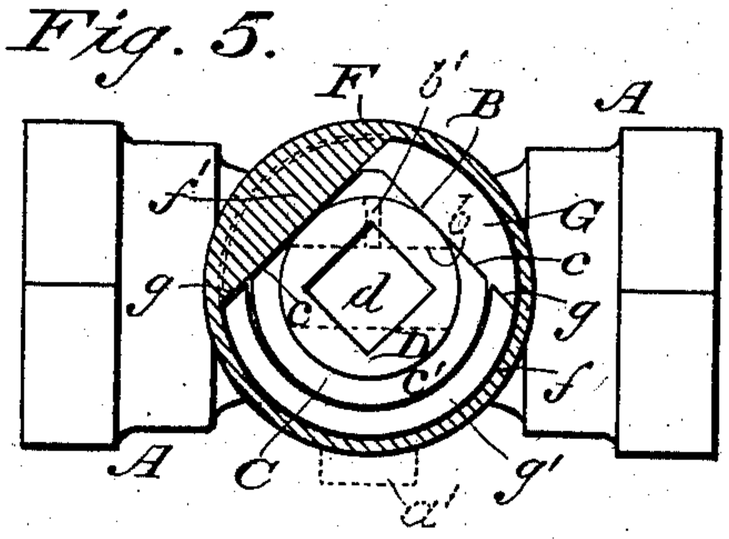


Fig. 6.

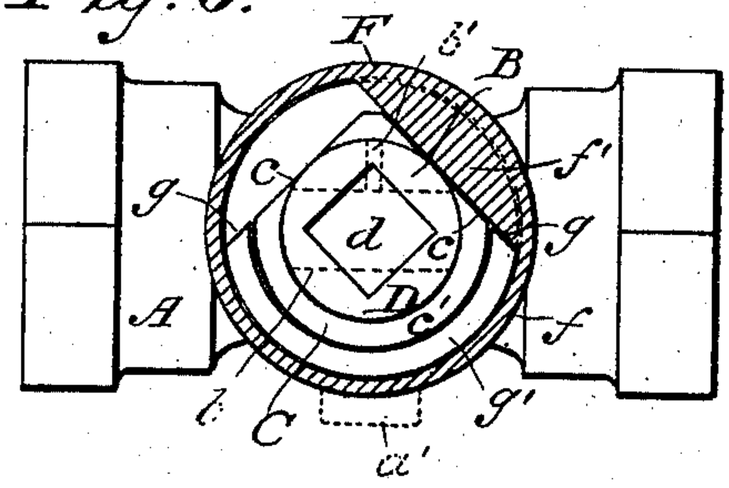


Fig. 7.

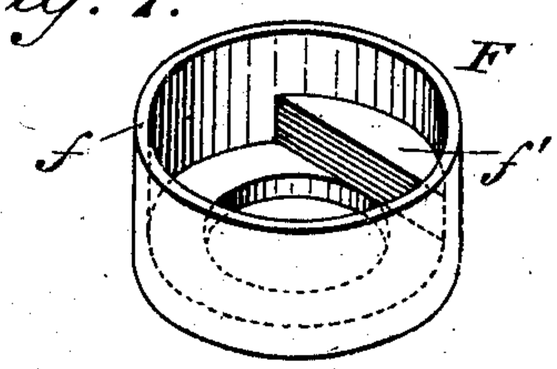


Fig. 8.

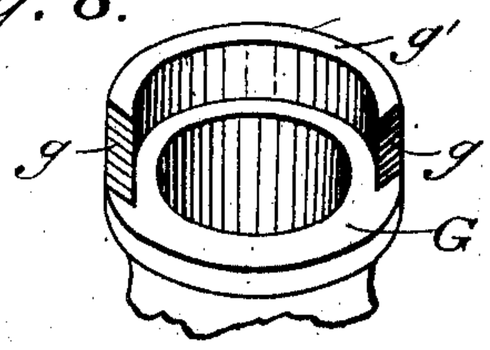
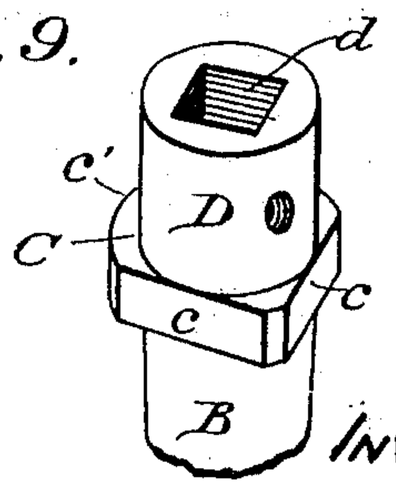


Fig. 9.



WITNESSES:

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INVENTOR:

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 10.

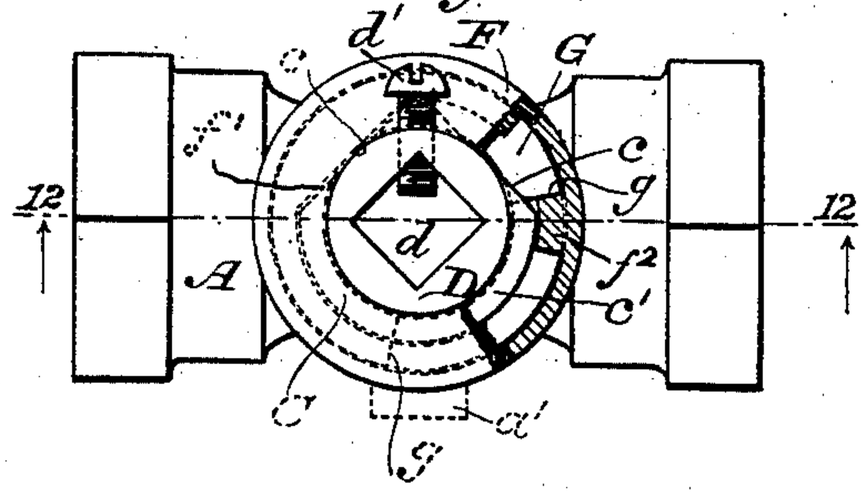


Fig. 11.

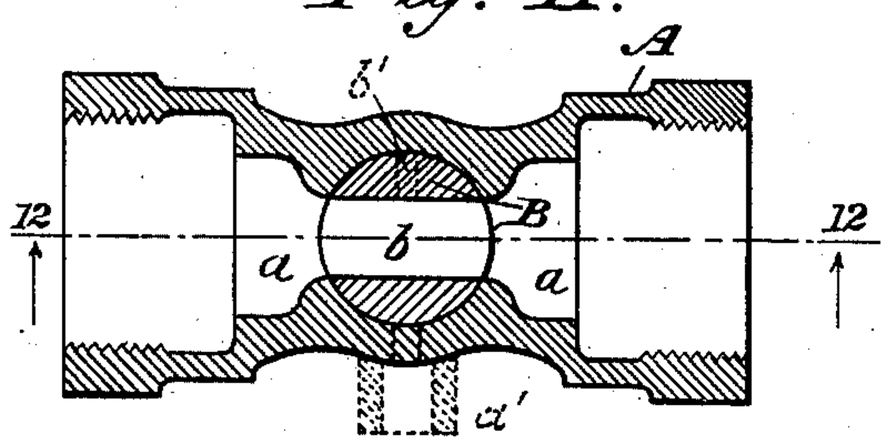


Fig. 12.

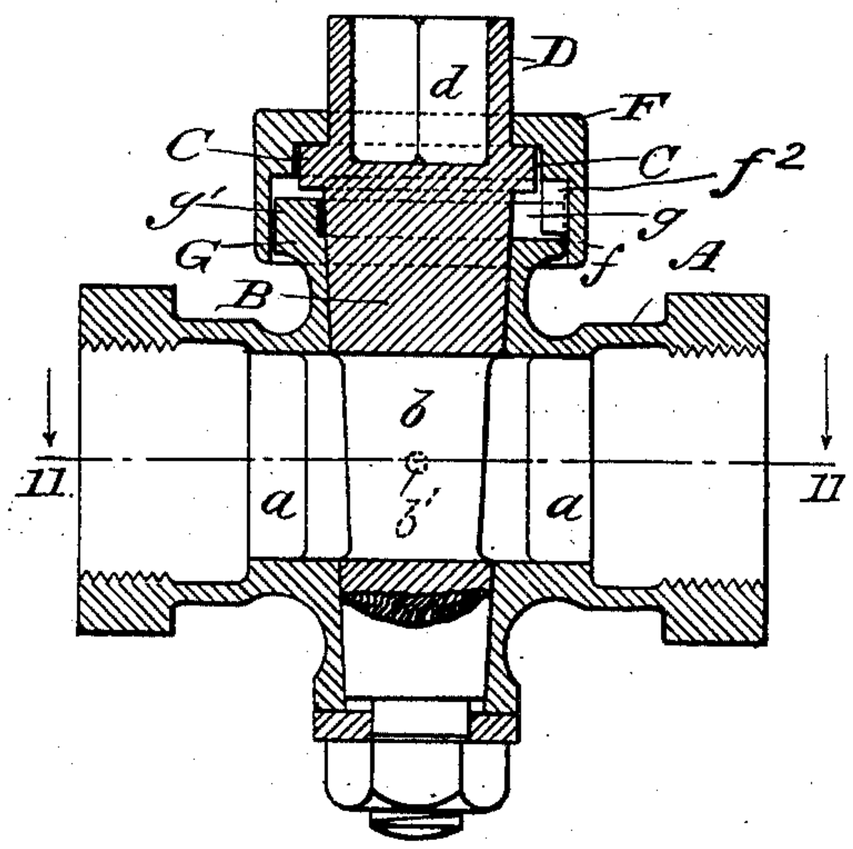


Fig. 13.

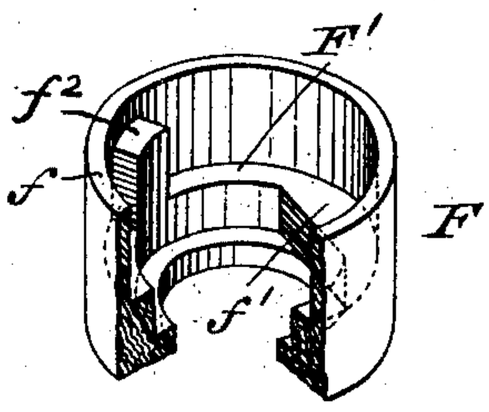


Fig. 14.

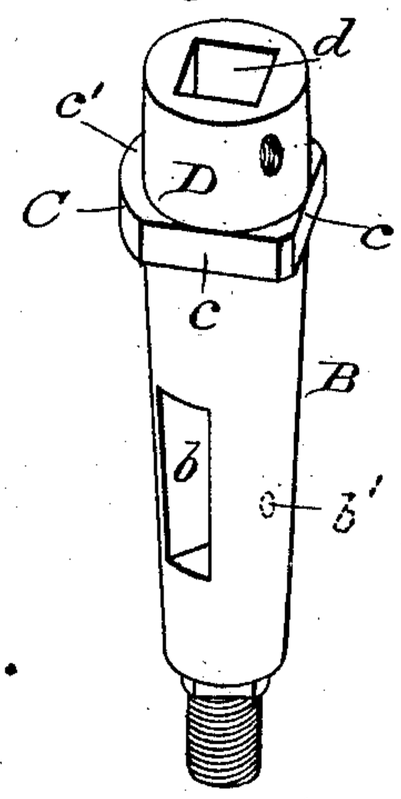
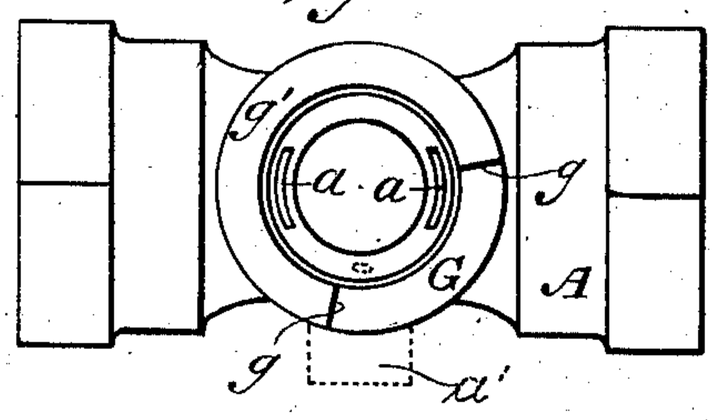


Fig. 15.



WITNESSES

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No. 756,526. Patented April 5, 1904.

UNITED STATES PATENT OFFICE.

SIMON RESEK, OF CLEVELAND, OHIO.

STOP-COCK.

SPECIFICATION forming part of Letters Patent No. 756,526, dated April 5, 1904.

Application filed January 13, 1904. Serial No. 188,818. (No model.)

To all whom it may concern:

Be it known that I, SIMON RESEK, a citizen of the United States, residing at Cleveland, Cuyahoga county, Ohio, have invented certain new and useful Improvements in Stop-Cocks, of which the following is a specification, that will enable those skilled in the art to which my invention pertains to make and use the same, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to stop-cocks or to stop and waste cocks adapted to be set for use either to right or left hand, as desired, according to the set of the handle, &c. Its objects are to simplify the parts, to reduce the weight, and to cheapen the expense of production of such cocks, to protect the upper end of the cock-body and the ground portion of the plug from dirt by a cap or cover which shall have a right or left hand connection with the plug and shall serve, in connection with suitable stops on the cock-body, to limit the throw of the plug.

The invention consists of certain features and combinations of features, which will hereinafter be described and specifically claimed.

The accompanying drawings show my invention in the form and details of construction now preferred by me; but changes of minor character might be made therein by a skilful mechanic without the exercise of invention and without departing from the spirit of my invention as set forth in the claims at the end of this specification.

In the drawings, Figure 1 is a plan or top view of a stop-cock embodying my invention in its preferred form. Fig. 2 is a horizontal section of the same on the line 2 2 of Fig. 3. Fig. 3 is a vertical section on the line 3 3 of Fig. 1. Fig. 4 is a plan view of the cock-body with the plug and cap removed. Fig. 5 is a plan view of the cock with the cap in section on the line 5 5 of Fig. 3 and showing the position of the cap-lug relatively to the plug and stop-lugs when the valve is set for one direction, say to pass liquid from the left. Fig. 6 is a similar view of the same with parts just referred to set in positions to pass liquid from the right. Fig. 7 is a perspective view of the cap inverted. Fig. 8 is a perspective view of the top flange of the cock-body, showing the position of the stop-lugs. Fig. 9 is a perspective view of the upper end of the plug. Figs. 10 to 15, inclusive, illustrate a form of cock embodying my improvement with a slight modification, Fig. 10 being a plan view of a cock with the cover partly broken away to better disclose the portions inclosed thereby. Fig. 11 is a horizontal section on the line 11 11 of Fig. 12. Fig. 12 is a vertical longitudinal section on the lines 12 12 of Figs. 10 and 11. Fig. 13 is a perspective view of the cap inverted. Fig. 14 is a perspective view of the plug. Fig. 15 is a plan view of the cock-body with the plug and cap removed.

My improvements are adapted to any form of stop-cock in which it is desirable that the plug shall be limited to being turned either to the right or to the left to open the cock, the construction of my cock admitting of its being set to turn the plug in either direction, as may be required. This is advantageous in the setting of many plain stop-cocks and is a feature of special importance in stop and waste cocks. I do not, however, mean to confine myself to its use in either of these forms, but claim it in any form of cock to which it may be applicable.

In the preferred form of my invention, as shown in Figs. 1 to 9, inclusive, the body A of the cock is of the usual construction, having the usual through-passages *a a* for a plain stop-cock, and in the event of its being a waste or drain cock having also the side drain-opening *a'*. (Shown by dotted lines in the several figures.) The plug B is also of the usual construction in its tapering portion, with the through-port *b*, and in the event of its being a waste or drain cock it is provided with the side drain-opening b'. (Shown by dotted lines in the figures.) At the upper end of the tapering portion of the plug is formed an annular flange C, the periphery of which is cut away on one side to form two flat faces *c c* at right angles to each other, while the remaining portion *c'* of the flange is cylindrical, the configuration of the flange being semi-square and semicylindrical. Above this flange is a cylindrical extension D, having a square socket *d* formed in it for the reception of the

square shank of a handle or rod by means of which the plug may be operated. The square sides of this socket preferably coincide with the sides of the semisquare of the flange C, and a set-screw d' for securing the handle-shank in the socket is preferably located on that side of the socket above the point formed by the two sides of the semisquare portion of the flange C. In the event of my invention being used in a waste-drain cock I also locate the drain-opening b' of the plug beneath this point and on the same side of the plug, so that the said point will serve as an indicator for the drain-opening. A loose ring or cap F is bored centrally to snugly fit upon the socket extension D of the plug and has a depending annular flange f within this cap, and depending from its top is formed a lug f', having a flat tangential face adapted to bear along its central portion against one or the other of the flat faces $c\,c$ of the flange C, upon which the inverted cap rests. It will be observed that the face of this lug f' is considerably longer than the flat faces c on the flange and that its ends project beyond the ends of the flange-face c with which it may be in contact. At the top of the cock-body is a flat flange G, which is inclosed and protected from dirt by the depending flange f of the cap. On the outer edge of the flange G are formed two raised stops g, which in this case are located about on opposite sides of the flange and stand in the path of lug f' on the cap to limit its throw. These stops g may be simple lugs, or they may, as shown, be formed by the ends of a semicircular ledge or rib g', extending half around the periphery of the flange G. By means of the construction described the cap-lug f' contacts with its flat face not only against one or the other of the faces c on the plug-flange, but also against the stops g on the cock-body, this single element in the cap thereby serving the double purpose of uniting the cap to the plug for right or left operation and also for limiting the throw of the plug, as set forth.

In Figs. 10 to 15 is shown a construction of cock in which the plug and cap are united for right or left throw by a flat-faced lug f' in the cap, operating on a semisquare and semicylindrical flange C on the plug, as before described; but the throw of the plug and cap is limited by somewhat different means. Instead of the lug f' extending beyond the faces c on the plug-flange C it is made shorter than before described and terminates at each end in an annular ledge F′, extending around the inside of the cap. A lug f^2 is formed in the cap against its outer wall and depending from the ledge F′, as shown in Figs. 10, 12, and 13. On the top of the cock-body is a raised ledge g', recessed at one side, the recess being bounded by stops $g\,g$, which in this case are constituted by the end walls of the ledge g'. The cap-lug f^2 lies in this recess and plays between the stops $g\,g$, which limit its movement. In this construction the cap is centered and supported on the plug not alone by its aperture fitting upon the cylindrical extension of the plug, but also by the cap-ledge F′, which embraces the semicylindrical portion c' of the plug-flange C.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent, is—

1. In a right-and-left stop-cock, the combination of a cock-body having the usual through-passage and plug-aperture and a flange at its top, a plug having the usual through-port and a flange C, near its upper end, that is semisquare and semicylindrical in shape, a cylindrical extension above said flange, a loose cap apertured to fit snugly upon said extension and resting upon the flange C of the plug, a depending flange on the cap inclosing the flange C and also the flange on the top of the cock-body, and a tangentially-faced lug in the cap adapted to bear against one of the flat sides c of the flange C on the plug, substantially as set forth.

2. In a right-and-left stop-cock, the combination of a cock-body having the usual through-passage and plug-aperture and a flange at its top provided with stops g, a plug having the usual through-port and a flange C, near its upper end, that is semisquare and semicylindrical in shape, a cylindrical extension above said flange, a loose cap apertured to fit snugly upon said extension and resting upon the flange C of the plug, a depending flange on the cap inclosing the flange C and also the flange on the top of the cock-body, a tangentially-faced lug in the cap adapted to bear against one of the flat sides of the flange C on the plug, and means whereby the movement of the cap is limited by the stop-lugs on the top of the cock-body, substantially as set forth.

3. In a right-and-left stop-cock, the combination of a cock-body having the usual through-passage and plug-aperture and a flange at its top provided with stops g, a plug having the usual through-port and a flange C, near its upper end, that is semisquare and semicylindrical in shape, a cylindrical extension above said flange, with a loose cap apertured to fit snugly upon said extension and resting upon the flange C of the plug, a depending flange on the cap inclosing the flange C and also the flange on the top of the cock-body, and a tangentially-faced lug in the cap adapted to engage one of the flat sides of the flange C on the plug and also the stops g on the cock-body, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SIMON RESEK.

Witnesses:
WM. A. SKINKLE,
GEORGE C. HANSEN.