

(No Model.)

J. MOSS.

COCK FOR HOUSE SERVICE AND STREET WASHER CONNECTIONS.

No. 315,652.

Patented Apr. 14, 1885.

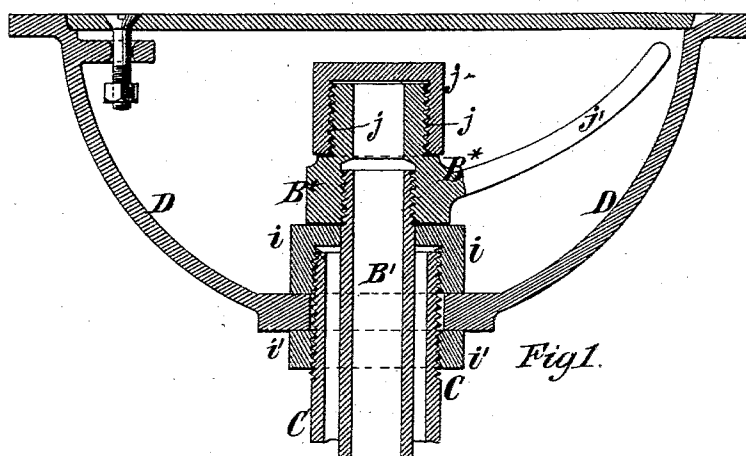


Fig. 1.

Fig. 2.

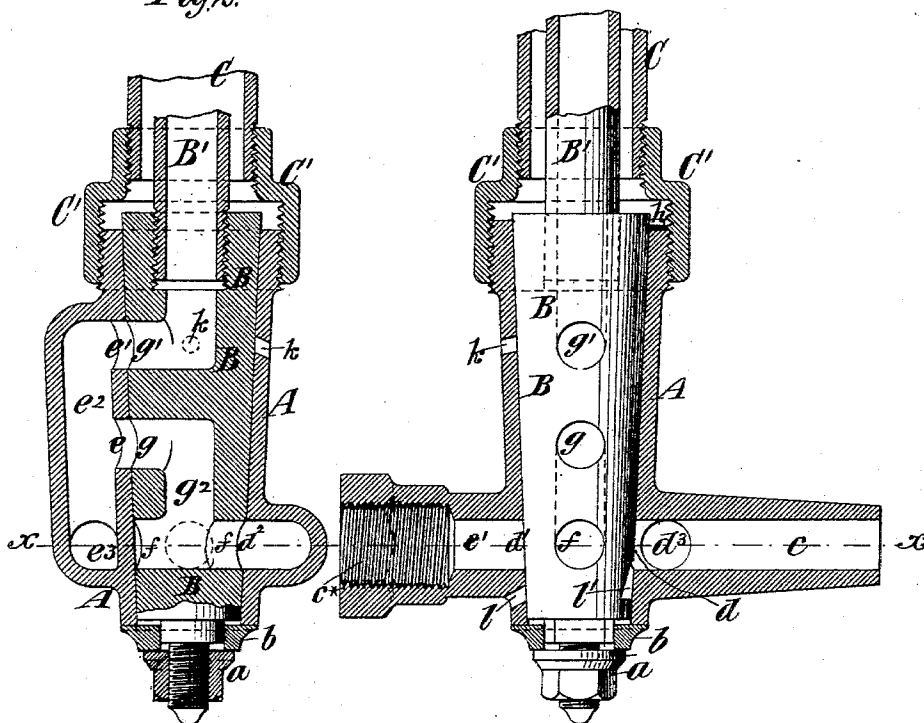
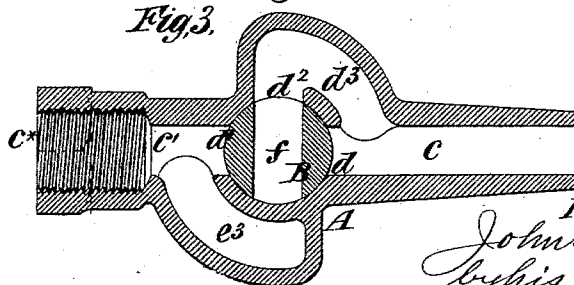


Fig. 3.



Witnesses:

Chas. Sundgren
Louis M. T. Whitehead.

Inventor:

John Moss
by his Attys.
Brown & Hall

UNITED STATES PATENT OFFICE.

JOHN MOSS, OF BROOKLYN, NEW YORK.

COCK FOR HOUSE-SERVICE AND STREET-WASHER CONNECTIONS.

SPECIFICATION forming part of Letters Patent No. 315,652, dated April 14, 1885.

Application filed June 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN MOSS, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Cocks for House-Service and Street-Washer Connections, of which the following is a specification.

Heretofore two separate cocks have generally been used for house-service and for street-washer connections; but attempts have been made to provide a single cock the plug of which could be turned to supply the house-service alone, to supply the house-service and street-washer connection at the same time, or to shut off the cock entirely. Cocks of this kind have not come into general use because, as the plug and shell are usually constructed, the passages for house-service are direct, while the passages through which the street-washer connection is supplied are circuitous, and, consequently, when the plug is turned to open to both the house-service and street-washer connection water flows far more directly and readily to the former than the latter.

The object of my invention is to provide a cock whereby the water may be shut off entirely, or admitted to the house-service only, or admitted to both the house-service and street-washer connection, and at the same time to obviate the objectionable features which have been inherent in cocks of this class as heretofore constructed.

The invention consists in a novel construction and arrangement of the ports and passages in the plug and shell, as hereinafter described, and whereby the desired results are attained.

In the accompanying drawings, Figure 1 is a vertical section of the cock, the plug being represented in elevation, and being turned to supply both the house-service and street-washer connection. Fig. 2 is a vertical section on a plane at right angles to the plane of Fig. 1, the plug being in the same position; and Fig. 3 is a horizontal section on the plane of the dotted line *xx*, Figs. 1 and 2.

Similar letters of reference designate corresponding parts in all the figures.

A designates the shell, and B the plug, fitted to the usual taper seat in the shell, and held therein by the nut and washer *a b*. The

shank *c* or inlet of the shell is here shown as tapered suitably for a solder joint, and the shank *c'* or outlet is internally screw-threaded at *c''* to receive a threaded pipe. In the plug-seat are opposite inlet and outlet ports, *d d'*, and in the same horizontal plane therewith is a third port, *d''*, in the seat, communicating by a passage, *d'''*, with the inlet-passage *c*, as shown best in Fig. 3.

Diametrically opposite the port *d''* in the plug-seat, but above the same, are ports *e e'*, arranged one above the other, and connected by a vertical passage, *e''*, which extends downward to the level of the ports *d d'*, and there communicates, by a passage, *e'''*, with the outlet-passage *c'*, which leads to the house-service. The passages *d''' e'''* are similar to each other, and each extends about a quarter-circumference of the shell; but they differ in that the passage *d'''* communicates by a port, *d''*, in the same horizontal plane with the plug-seat, while the passage *e'''* communicates with the vertical passage *e''*, which communicates with the plug-seat by ports *e e'*.

In the plug B is a transverse water-way, *f*, in the same horizontal plane with the ports *d d'* *d''* in the shell, and in the same vertical plane with the water-way *f* are two ports, *g g'*, open on the same side of the plug, and ranging horizontally with the ports *e e'* in the plug-seat of the shell. The port *g* communicates by a passage, *g''*, in the plug with the water way or passage *f*, and the port *g'* communicates directly with the hollow head of the plug, from which a pipe, B', extends upward for a street-washer connection. Suppose, for example, that it is desired to admit water from the inlet *c* to the house only. The plug is in such case to be turned so that the direct water-passage *f* will connect opposite ports *d d'* in the plug-seat, and water will then flow through the cock directly to the house, as would be the case if an ordinary cock were used.

When water is to be supplied both for house-service and the street-washer connection, the plug is turned to the position shown in the drawings, and the course of the water will then be from the inlet *c* through the passage *d'''*, port *d''*, entering the water-passage *f* of the plug; thence upward through the passage *g''* and ports *g e* into the vertical passage *e''* of the shell.

The current of water there divides, a portion passing downward, and then through the passage e^3 to the house-service outlet e' , and another portion passing upward and through the ports $e' g'$ into the hollow head of the plug, and thence upward through the pipe B' and to the street-washer connection. It will be seen that from the time the water enters the passage e^2 from the ports $e g$ the passage to the house-service is as circuitous as that to the street-washer connection, and hence the water is not caused to flow in one direction more freely than in the other by reason of one passage being more direct than another. The vertical and horizontal passages $e^2 e^3$ constitute a single passage.

When it is desired to shut off entirely the flow of water through the cock, the plug must be turned half round from the position shown in the drawings, so that its ports $g g'$ come on that side of the plug-seat which is destitute of ports. Water can then reach the transverse passage f through the passage d^3 and port d^2 , but has no outlet beyond that point. The plug B may have the usual check, h , (shown in Fig. 1,) to govern its turning.

In Fig. 1 I have shown the sidewalk-box of the street-washer and the connections for operating the plug.

C designates a pipe, which is made fast, by a coupling, C' , with the shell A of the cock, and the sidewalk-box D receives this pipe loosely through its bottom. The pipe is threaded externally, and is made fast to the box D by a cap-nut, i , and a nut, i' , below the same. The pipe B' extends upward from the head of the plug B within the pipe C and through the nut

i . At its upper end a coupling-piece, B^* , is screwed upon it, and said piece B^* is provided with an external thread, j , for the attachment of a hose-coupling and a handle, j' , whereby the pipe B' and attached plug may be turned.

When the street-washer is not in use, the coupling-piece B^* may be closed by a cap, j^2 .

Ranging with the ports $e' g'$ in the shell and plug are vents K in the plug-seat, and when the plug is turned to shut off the water entirely, or to admit it to the house-service only, the port g' in the plug will be coincident with one or other of these ports, and will free the hollow plug and pipe B' of water.

In the lower part of the plug-seat is a vent, l , (shown in Fig. 1,) and when the plug is turned to entirely shut off water the vent l will be placed in communication with the water-outlet e' by a groove or notch, l' , in the plug, so as to drain the house-pipes.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, with a cock-shell having in its plug-seat ports $d d'$ d^2 , a passage, d^3 , connecting the port d^2 with the water-inlet ports $e e'$, and a passage leading to the water-outlet of the shell, and with which the ports $e e'$ communicate, of the plug having a direct water-way, f , and ports $g g'$, ranging with the ports $e e'$ in the plug-seat, and communicating, respectively, with the water-way f and the hollow head of the plug, substantially as and for the purpose herein described.

JOHN MOSS.

Witnesses:

EMIL SCHWARTZ,
LOUIS M. T. WHITEHEAD.

It is hereby certified that in Letters Patent No. 315,652, granted April 14, 1885, upon the application of John Moss, of Brooklyn, New York, for an improvement in "Cocks for House Service and Street Washer Connections," a comma should be inserted and read in line 62, page 2, of the printed specification, after the compound word "water-inlet;" and that the Letters Patent should be read with this correction therein to make it conform with the record of the case in the Patent Office.

Signed, countersigned, and sealed this 21st day of April, A. D. 1885.

[SEAL.]

H. L. MULBROW,
Acting Secretary of the Interior.

Countersigned:

M. V. MONTGOMERY,
Commissioner of Patents.