

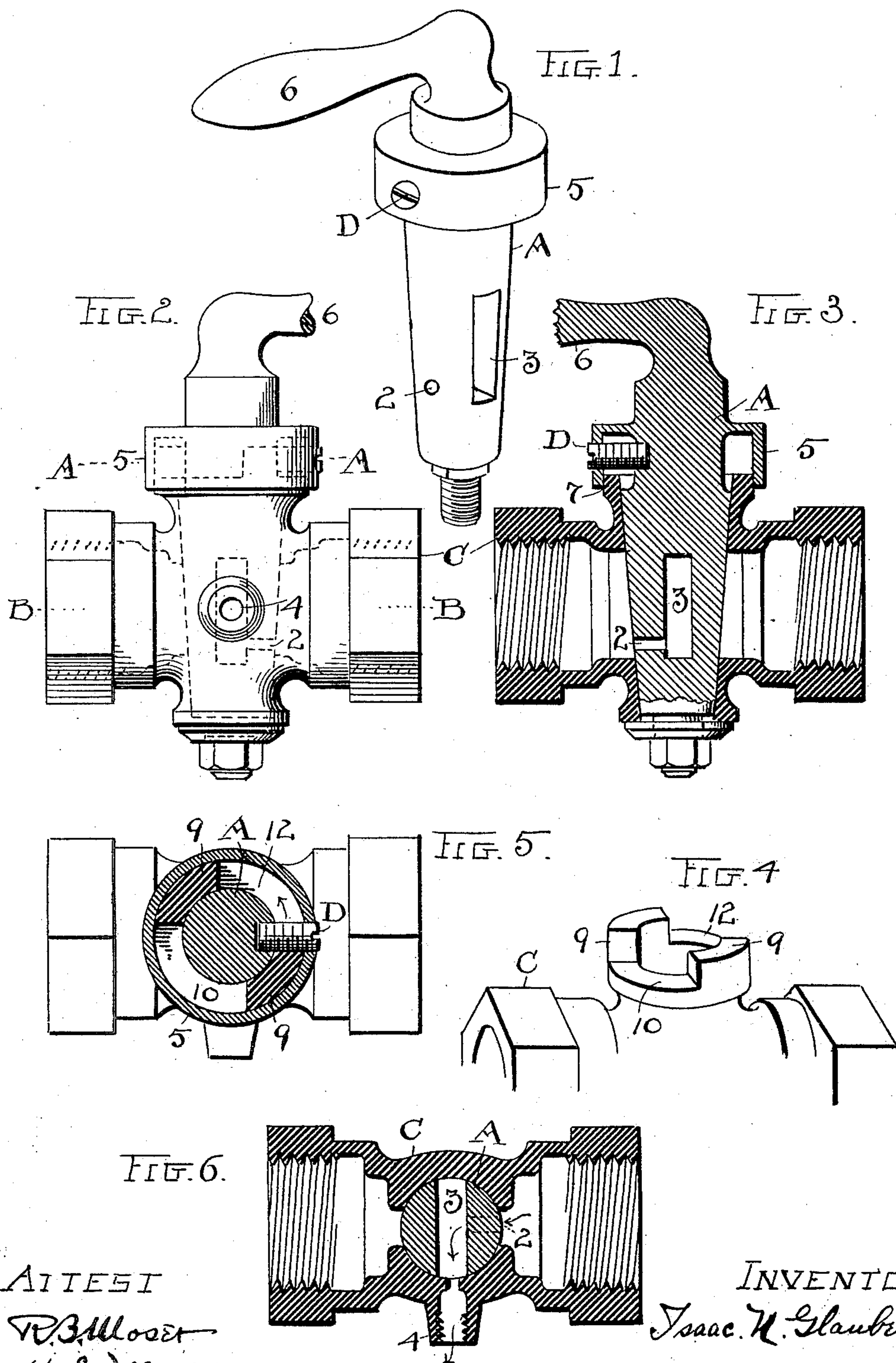
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Patented Apr. 22, 1902.

I. N. GLAUBER.
PLUG FOR WATER AND STEAM COCKS.

(Application filed July 31, 1901.)

(No Model.)



ATTEST

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PLUG FOR WATER AND STEAM COCKS.

SPECIFICATION forming part of Letters Patent No. 698,007, dated April 22, 1902.

Application filed July 31, 1901. Serial No. 70,384. (No model.)

To all whom it may concern:

Be it known that I, ISAAC N. GLAUBER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Plugs for Water and Steam Cocks; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in plugs for water and steam cocks; and the invention consists in the construction and combinations of the plug, substantially as shown and described, and particularly pointed out in the claims.

Figure 1 is a perspective view of my improved plug apart from other mechanism. Fig. 2 is a side elevation of a coupling and of the plug seated therein. Fig. 3 is a sectional elevation of coupling and plug lengthwise of the coupling. Fig. 4 is a perspective top view of the coupling alone; and Fig. 5 is a cross-section on line A A, Fig. 2. Fig. 6 is a horizontal cross-section on line B B, Fig. 2.

As thus shown and described, the plug A in itself, apart from its special features, may be said to be of a well-known type or pattern and has the usual ground and tapered body to give it a close fit in its seat in coupling C. Provision is also made to utilize this plug for waste purposes, as in stop and waste cocks and the like, if desired, and for this purpose the said plug has an outlet-orifice 2, communicating with its central transverse passage-way 3. It will be observed likewise as a feature that the said orifice 2 is on a plane so far below the waste-outlet 4 in the coupling that even if the plug were turned around so as to bring the said orifice 2 to the front it could not then discharge, because it would not be in a plane with the outlet 4, and hence it would be closed by the wall of the coupling.

Structurally and practically the plug A is novel in this, that it is cast wholly in one piece and has cast integral therewith what has come to be known as a "sand-cap" 5 and a "handle" 6. The said cap is of a size in cross-section adapted to somewhat snugly fit over and about the upper portion 7 of the plug-seat, which is circular like a collar and

stands up from or above the body of the coupling a suitable distance to enable cap 5 to overlap the same and come down as a skirt-
ing, substantially as shown.

One of the most frequent objections met with in the use of a coupling and plug fashioned more or less like the one here shown is the danger that sand, dust, or dirt will settle in between the plug and its seat, and although these surfaces are ground so as to fit perfectly tight it still is found that dust and sand will work into the bearings of the plug and scratch and mar the same and sooner or later produce a leaky condition. Various precautions have been taken first and last to obviate this objection and protect the said bearing-surfaces from injurious accumulations from without, and I have accomplished this desirable result by casting cap 5 integral with or upon the plug itself and making the cap of such depth as to extend down over the side of the plug-bearing collar 7 a sufficient distance and with such closeness as to prevent the creeping of sand or dust into the space within. Obviously there can be no accumulations from above, as before, because the cap is whole with the plug, and as the cap fits closely about collar 7 dirt is excluded here also.

In practical use the plug is supposed to be set in a given relation to the coupling C according as a right or left hand seating thereof is desired, and this depends on the location of the plug and the coupling in the pipe connections. (Not shown.) The position of the plug in the coupling is further determined by screw D, which is shown here as being entered through cap 5 into the body of the plug between the top of bearing extension 7 and the top of cap 5 and serves as a stop for the rotation of the plug against either of the quarter segments or lugs 9 on the top of the coupling. Between these segments or lugs there are also segmental recesses 10 and 12 of quarter-size, and the position of the plug for right or left uses is determined by bringing screw D to play either in the recess 10 or recess 12, according as a right or left hand position of the plug is wanted. By this construction the plug is kept absolutely clean and is adapted to serve for an indefinite period in the most exposed places, as beneath cars and like

places where there is much dust. Then it possesses the further advantage of carrying its own handle as an integral part, and this is made possible by reason of casting the cap on the plug. If it were not so cast and had to be slipped down over the plug, a separate handle would be required. As it is, the plug is a complete and self-contained article carrying its own equipment and being ready for use and to be operated without bringing anything to it for this purpose. Any suitable style of handle can be used.

What I claim is—

1. A plug for steam and water cocks having a cap cast about the top portion thereof and a removable stop within said cap, in combination with a coupling having a seat for said plug and a projection on said coupling in position to be engaged by said stop, substantially as described.

2. In water and steam cocks, a coupling having a seat with a circular upper portion projecting above the body of the coupling and lugs on the top thereof, in combination with a plug having an integral cap about its top

encircling the said upper portion of the seat, and a removable stop in said cap to engage said lugs, substantially as described.

3. The coupling having a seat for a plug provided with a circular extension about its top and lugs on the top of said extension, in combination with a plug having a cap integral with its upper portion and inclosing said lugs and circular extension from above, and a removable stop in the cap arranged to engage against said lugs when the plug is rotated, substantially as described.

4. As a new article of manufacture, a plug for water and steam cocks having a tapered barrel and a cap and handle cast integral with its upper portion, said barrel having a fluid-passage through its center and a hole through its cap for the insertion of a stop, substantially as described.

Witness my hand to the foregoing specification this 23d day of July, 1901.

ISAAC N. GLAUBER.

Witnesses:

R. B. MOSER,
H. T. FISHER.