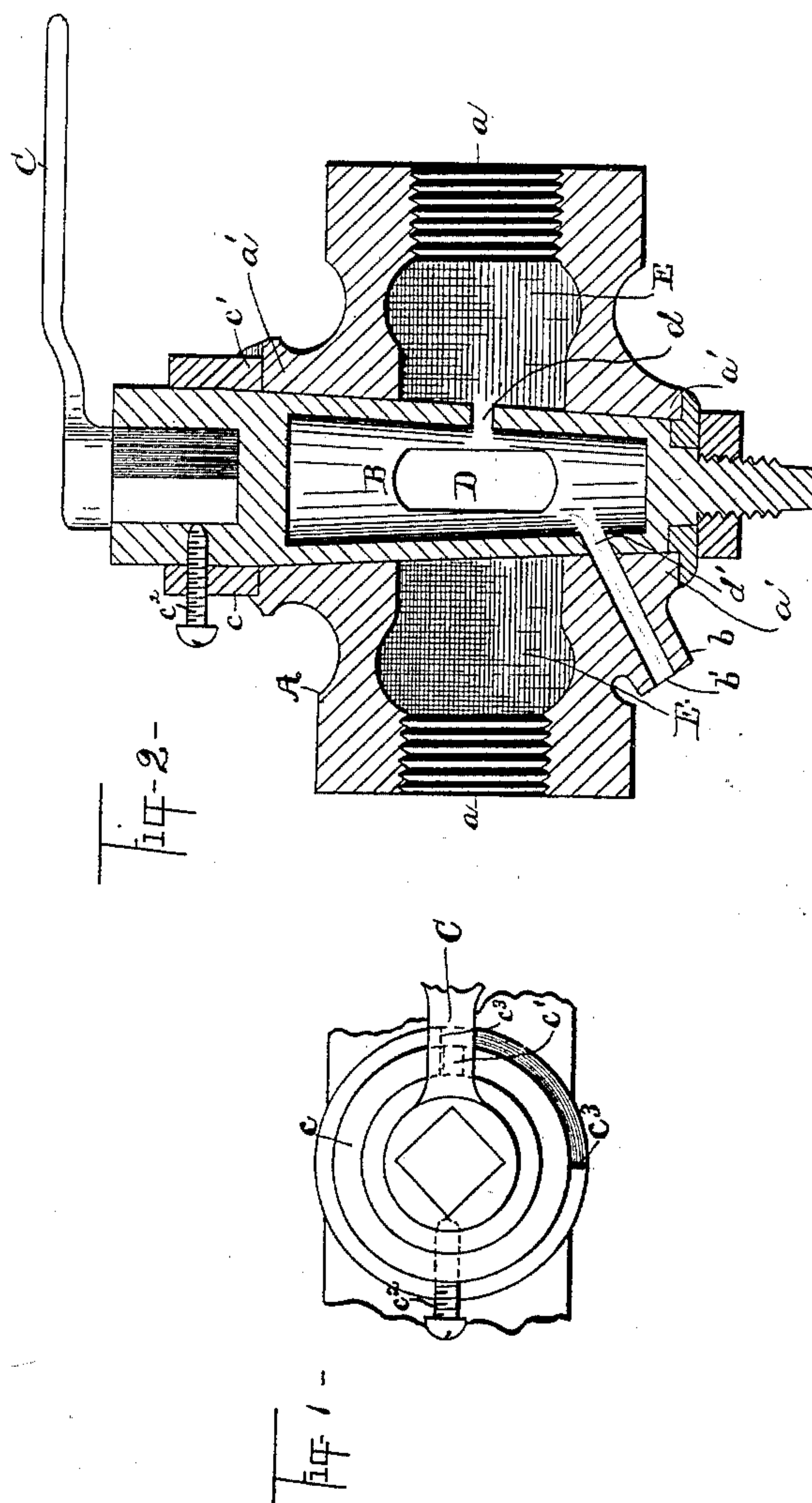


(No Model.)

P. G. VAN WIE.
STOP AND WASTE COCK.

No. 450,763.

Patented Apr. 21, 1891.



Witnesses
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UNITED STATES PATENT OFFICE.

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STOP AND WASTE COCK.

SPECIFICATION forming part of Letters Patent No. 450,763, dated April 21, 1891.

Application filed May 16, 1890. Serial No. 352,020. (No model.)

To all whom it may concern:

Be it known that I, PETER G. VAN WIE, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented certain new and useful Improvements in Stop and Waste Cocks, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle so as to distinguish it from other inventions.

My invention relates to stop and waste cocks. It has for its object an improved form of stop and waste cock that can be used interchangeably and hence do away with the right and left hand cocks that have heretofore been necessary, according to the location of the pipe relative to the wall that it is in proximity to. By thus making the stop and waste cock interchangeable I obviate the necessity of carrying in stock rights and lefts with the consequent locking up of unused capital, and I further prevent the confusion which frequently arises in the mind of the plumber relative to the required kind of stop and waste cock necessary for the particular job he has on hand. This confusion frequently causes the plumber to waste time by running back and forth to obtain the proper kind.

Referring to the drawings, Figure 1 is a plan view, and Fig. 2 is a longitudinal sectional view, of a stop and waste cock constructed in accordance with my invention.

A is the casing of a waste-cock, provided with the pipe-connecting ends a and the plug-supporting extremities a' , in which the plug B is fitted. A drip-nipple b is located in the parting intermediate of one of the pipe-connecting ends and the lower plug end, and is adapted to discharge downwardly in the same vertical plane with the longitudinal plane of the plug and not at right angles thereto. Said nipple is of course provided with the usual downwardly-inclined discharge-port b' , that extends through to the plug-opening. A handle C fits in the upper portion of the plug and is secured thereto in any suitable manner. A washer c , provided with the stop c' , fits over the upper end of the plug and is secured thereto by set-screw c^2 . The body is

also provided at its upper end with a stop c^3 , that is adapted to engage with the projecting lug of the washer and thereby prevent further rotation of the plug. It will be seen by this device that the handle and washer can very readily be changed so as to adapt them to either side of the cock that is desired. The body portion of the plug is of the usual hollow or cored-out formation, and is provided with the usual supply-ports D, located opposite one another and adapted to register with the supply-ports E of the casing. At right angles to said supply-ports is provided the drip or waste port d , and diametrically opposite to said port is a second drip or waste port d' , that is located below the plane of port d and which is adapted to register with the port b' in the drip-nipple. It will thus be seen that when the plug is turned so as to shut off the water, then the drip-port d of the plug registers with one of the supply-openings of the casing and at this time the second plug drip-port d' registers with the nipple drip-port b' . It will further be observed that no matter which of the longitudinal sides of the casing is placed in parallel proximity to the wall or in other close engagement therewith, the drip-nipple is always so located as not to discharge against the wall, and by reason of the adjustability of the handle and the location of the drip-ports in the plug it can be so adjusted as to be used in any position where drip and waste cocks are required without the necessity of carrying rights and lefts. The removable washer allows the valve easily to be removed and reground, which is another point of advantage in my valve.

The foregoing description and accompanying drawings set forth in detail mechanism embodying my invention. Change may be made therein, provided the principles of construction respectively recited in the following claims are employed.

It will be observed that the casing for this cock may be cast with as much ease as a common straight casing without waste-outlet and with more ease and at a less expense than the waste-cocks now in general use, as the core for the waste-passage will be in the same plane as the core for the plug-seat, and may be withdrawn from the finished casting in the

same manner as the core for the plug-seat. This cannot be done in waste-cocks having the waste-passage in a plane at right angles to the plane of the plug-seat, in which that
 5 half of the mold which casts the nipple for the waste-passage must be made with a corresponding recess, and a passage must afterward be drilled through said nipple. The plug for the cock may also be cast in the same
 10 manner as an ordinary hollow plug, and the waste-ports d and d' may simply be drilled straightway through the shell of the plug.

In practice stop and waste cocks usually are secured upon the water-pipes close up
 15 against the wall upon which the pipes are secured. Two cocks usually are employed, one upon the cold-water pipe and another upon the hot-water pipe, and the handles of the plugs usually project from the sides opposite to the
 20 facing sides of the cocks and are turned upward to open the cocks, and consequently and necessarily outward to close the same. In cocks having their waste-passages upon the outwardly-facing sides of the casing the waste
 25 water will squirt out upon the person closing the cock, and in cocks having waste-passages through the ends of the plugs the cocks will squirt the waste water upon each other, and will thus in frosty weather cause the cocks to
 30 be covered with ice. In my stop and waste cocks the waste-passage is downward, so that, although the cocks squirt their waste water from opposite sides, they will squirt it downward and not upon each other.

35 As the same cocks are to be used for rights or lefts or secured with either side to the wall, it is necessary to adjust the position of the handle and to adjust the turn of the plug according to the side of the cock which is to go

against the wall. This is accomplished by
 40 the removable handle and by the adjustable washer upon the plug, which may be revolved one-fourth of a revolution to bring its stop c' to bear against either one or the other of the
 45 stops c^3 , according to the direction in which the plug is to be revolved to close or open the cock.

From the above it is obvious that this stop and waste cock will possess advantages, as well in its manufacture as in its application,
 50 which are not possessed by any other cock with which I am acquainted, as this cock possesses the advantage of cheap and simple construction as well as of interchangeability.

I therefore particularly point out and distinctly claim as my invention—
 55

In an interchangeable right and left stop and waste cock, the combination, with a casing formed with a downwardly and outwardly inclined waste-passage extending from near
 60 the end of the plug-seat and in the same plane as the supply and discharge passages, of a hollow plug formed with a transverse passage which registers with the supply and discharge
 65 passages, and two waste-ports which are in a plane at right angles to the transverse passage in opposite sides of the hollow plug and registering, respectively, with the supply-passage and with the inner end of the waste-passage, substantially as set forth.
 70

In testimony that I claim the foregoing to be my invention I have hereunto set my hand this 8th day of May, A. D. 1890.

PETER G. VAN WIE.

Witnesses:

J. B. FAY,
 E. E. PATE.