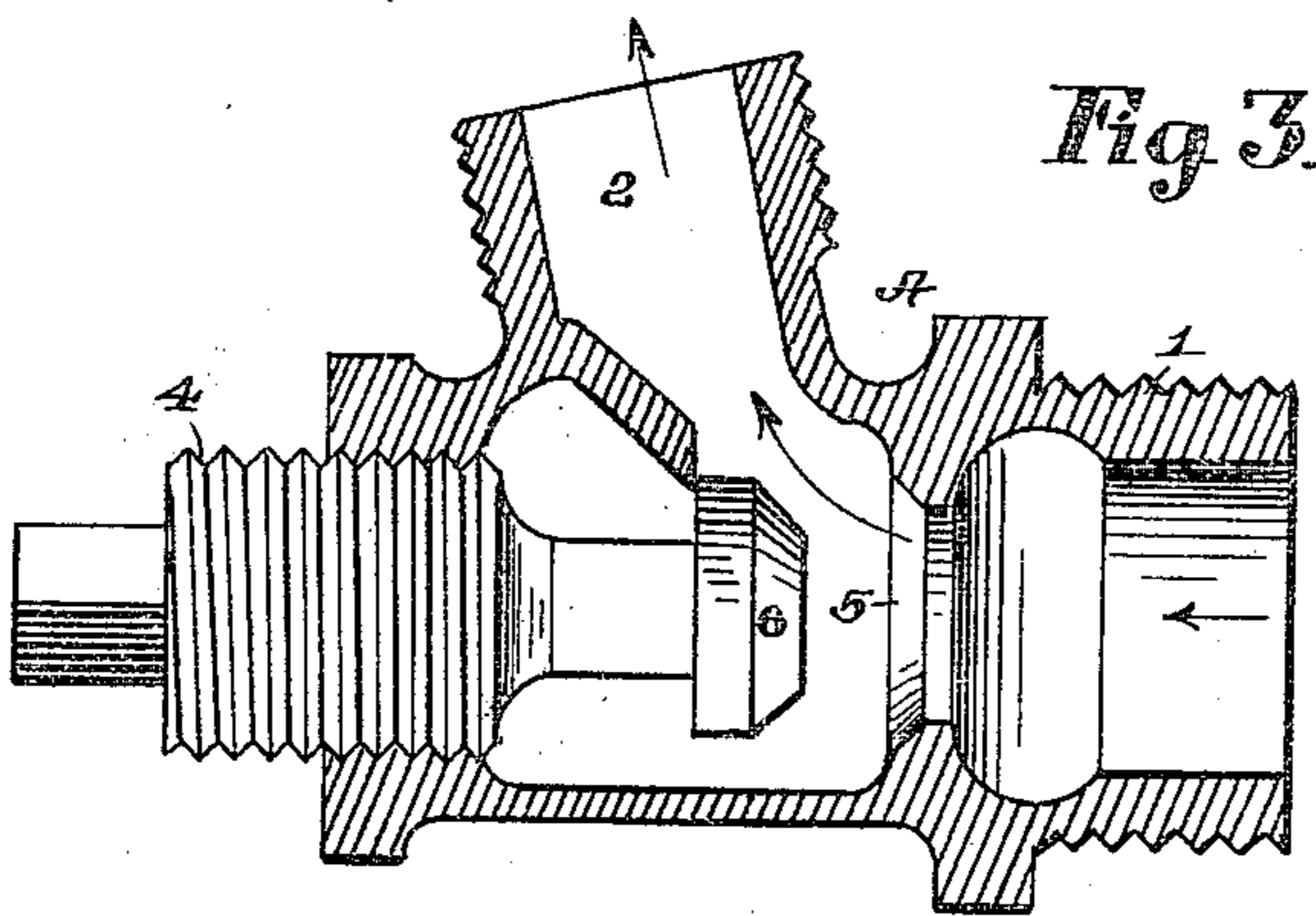
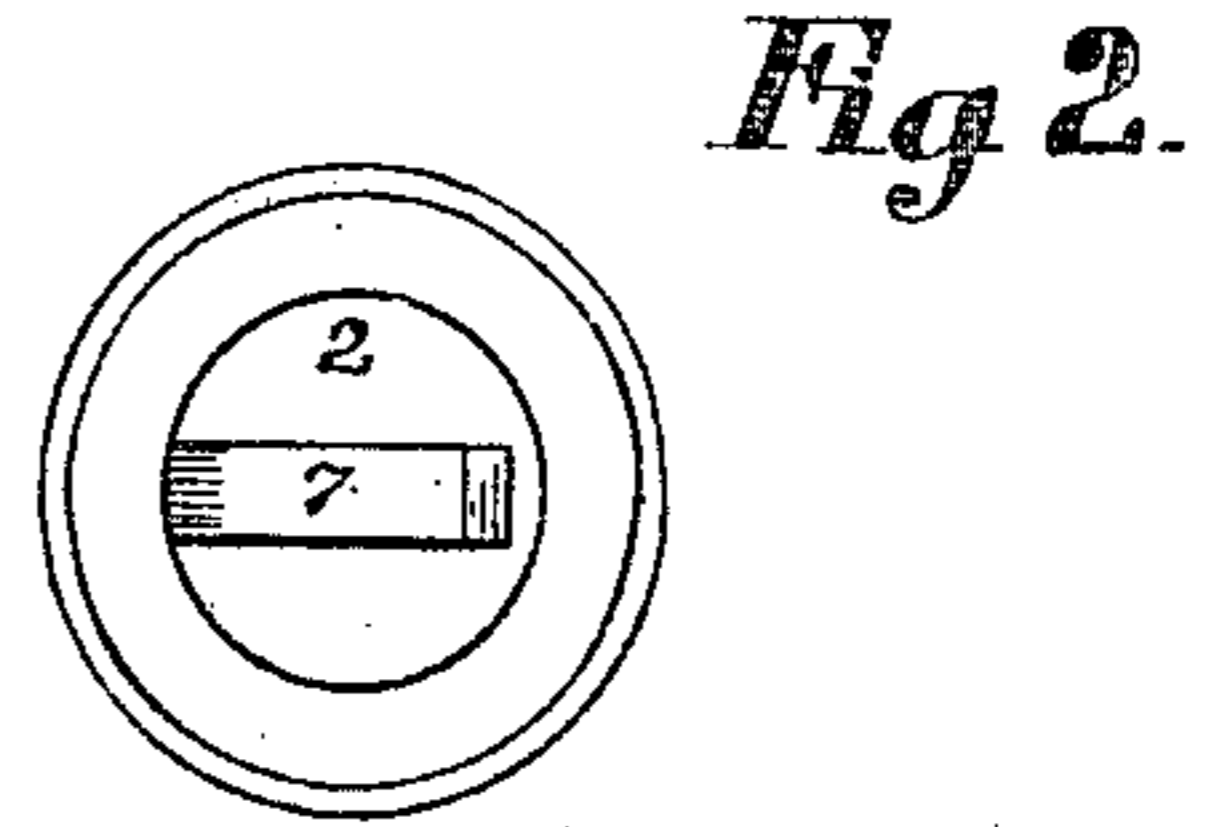
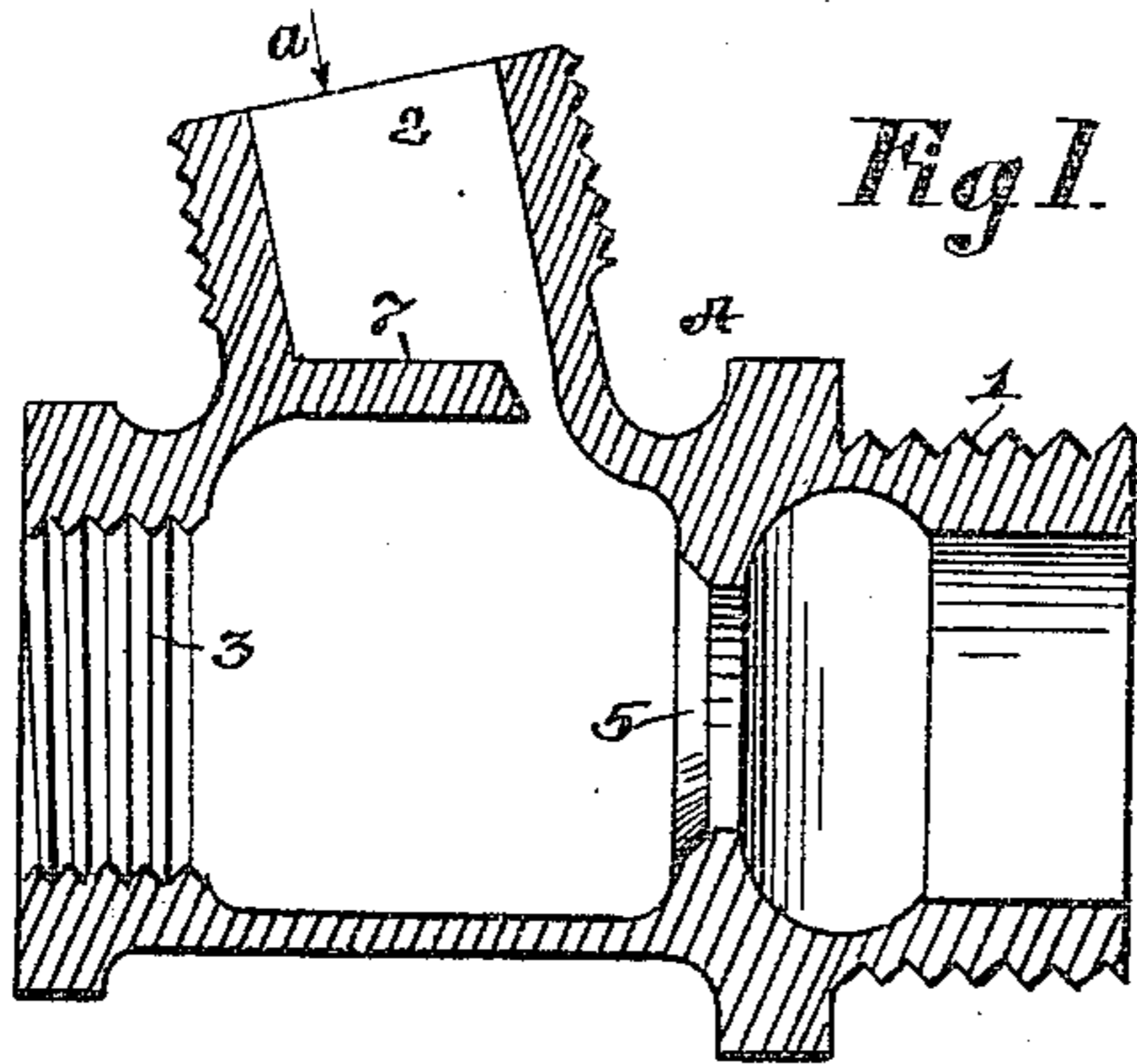


W. L. BELKNAP.  
DRAW-OFF COCK FOR BOILERS.  
APPLICATION FILED OCT. 21, 1909.

959,698.

Patented May 31, 1910.



WITNESSES

*George W. Finck*  
*J. B. Pines*

INVENTOR

*William L. Belknap*  
BY *Geo. D. Phillips*  
his ATTORNEY

# UNITED STATES PATENT OFFICE.

WILLIAM L. BELKNAP, OF BRIDGEPORT, CONNECTICUT.

DRAW-OFF COCK FOR BOILERS.

959,698.

Specification of Letters Patent.

Patented May 31, 1910.

Application filed October 21, 1909. Serial No. 523,743.

*To all whom it may concern:*

Be it known that I, WILLIAM L. BELKNAP, a citizen of the United States, and a resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Draw-Off Cocks for Boilers, of which the following is a specification.

My invention relates to draw-off cocks for boilers, and particularly to that class of boilers connected with a hot water system for heating houses.

The object of my invention is to provide a cheap and efficient stop to prevent accidentally withdrawing the valve plug entirely from its casing.

With this object in view, my invention consists in forming the valve stop an integral part of the casing and primarily located above the valve plug until the valve plug is seated, and is then bent down in the path of the plug to prevent the complete withdrawal of the plug from the casing.

Referring to the drawings, Figure 1 represents a central sectional view of the casing or body of the cock showing the stop as an integral part of the body and primarily located at the entrance of the outlet port; Fig. 2 is a plan view of the upper surface of the outlet of the casing looking in the direction of arrow *a* of Fig. 1; and Fig. 3 is a central sectional view of the cock body with the valve plug operatively mounted therein with the stop bent downward and with which the valve end of the plug contacts when raised from its seat.

The valve body A has the threaded inlet port end 1 adapted to be connected with a boiler (not shown) and the exteriorly threaded outlet port 2, adapted to connect with a hose (not shown) for conveying away the water, and the interiorly threaded portion 3 to receive the threaded portion 4 of the plug and the valve seat 5 for the valve end 6 of the plug.

When the body is cast, the stop 7 will lie in a horizontal position and at the entrance of the outlet port 2 as shown at Fig. 1. This initial position of the stop will leave a clear space below for the operation

of the necessary tools required for finishing the interior of the body, viz: forming the threaded part 3 and the valve seat 5. The plug is then inserted and the stop driven down far enough to contact with the valve end of the plug when such end has been removed far enough from its seat to give sufficient opening for the escape of water as shown at Fig. 2.

The construction shown comprises a body and valve plug only, and on account of its simplicity and cheapness is, with the exception of the stop feature, now in general use in connection with a hot water system for drawing off the boiler. In drawing off a boiler, a hose is attached to the outlet of the cock and the plug turned back to unseat the valve. As the discharge end of the hose is generally located in a sink or other like place out of sight of the operator, there is no means of determining when the valve is fully opened, and, consequently, the plug is frequently entirely withdrawn, or so nearly so that the action of the water will soon force it out and flood the cellar. To provide a suitable stop for the valve without adding materially to the cost of so cheap an article as the ordinary draw-off cock, has heretofore been a difficult matter to accomplish. The stop as above shown and described adds nothing to the cost of construction, is out of sight and thoroughly effective for draw-off cocks of all descriptions.

Having thus described my invention, what I claim is:—

A draw off valve cock comprising a body having inlet and outlet ports and a valve seat and an adjustable valve plug for the seat, and a member integral with the body and positioned to serve as an outer stop for said plug, the member having been so positioned after the insertion of the plug.

Signed at Bridgeport in the county of Fairfield and State of Connecticut this 20th day of Oct. A. D. 1909.

WILLIAM L. BELKNAP.

Witnesses:

H. A. LAMB,

GEO. D. PHILLIPS.