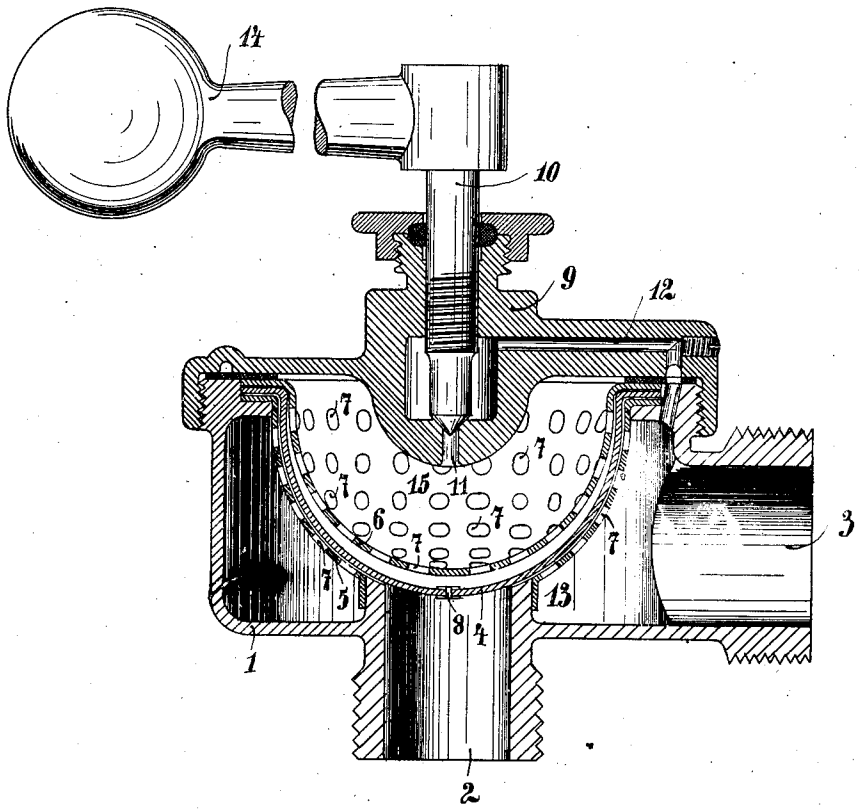
No. 848,739. PATENTED APR. 2, 1907.

J. GUT.

COCK OR VALVE.

APPLICATION FILED DEC. 27, 1905.



Witnesses
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UNITED STATES PATENT OFFICE.

JAKOB GUT, OF ZURICH, SWITZERLAND, ASSIGNOR OF ONE-HALF TO OSKAR BOSSHARD, OF ZURICH, SWITZERLAND.

COCK OR VALVE.

No. 848,739. Specification of Letters Patent. Patented April 2, 1907.

Application filed December 27, 1905. Serial No. 293,474.

To all whom it may concern:

Be it known that I, JAKOB GUT, a citizen of the Swiss Republic, and a resident of Zurich, in Switzerland, have invented certain new and useful Improvements in Cocks or Valves, of which the following is a specification.

The object of the present invention is a cock or valve in which the cut-off member is formed of elastic material and placed directly over the fluid-inlet, being movably supported between two perforated walls arranged at a certain distance from each other. This latter arrangement is for the purpose of balancing the cut-off member both during the opened and closed condition of the cock, so that the life of said cut-off member is considerably increased.

The accompanying drawing is a longitudinal section of the improved cock.

The cock-casing 1 is provided with an inlet-tube 2 and a discharge-tube 3. The aperture of the inlet-tube within the chamber forms a seat for the elastic cut-off member 4, which is of hemispherical form. The edge of the said member is held between two walls 5 and 6, also of hemispherical form, both said walls being provided with apertures 7. The wall 5 surrounds the opening of the inlet-tube 2 and forms a continuation of the seat. Between the said two walls 5 and 6 a certain space is left which permits the cut-off member to move to a limited extent. The member 4 is provided with a small aperture 8, through which the fluid can enter the hollow space 15, formed by the said member 4 and the cover 9, which closes the cock chamber or casing. In said cover is a passage 11, adapted to be closed by a pin-valve 10 and which is in communication with the chamber 13 by means of the passage 12. The valve 10 has a screw-threaded spindle and can be caused to open or close the passage 11 by rotating the lever 14, connected thereto in the one or other direction.

The action of the improved cock is as follows: When the cut-off member 4 is closed and the cock is under fluid-pressure, the fluid can enter the chamber 15 from the inlet-tube 2 through the aperture 8 in the cut-off member until the pressure in said tube and chamber is balanced. As no pressure on the member 4 laterally of the inlet-tube takes place, said member is pressed by the interior fluid-pressure against the seat at the end of the inlet-tube and against the wall 5, and a secure cut-off is thus obtained. If the passage 11 is now opened by raising the pin-valve 10, fluid will immediately enter the chamber 13 through said passage 11 and passage 12 aforesaid. The consequent decrease of pressure in the chamber 15 allows the overpressure in the inlet-tube to remove the cut-off member 4 from its seat and force it against the wall 6. The fluid can now pass out through the perforated wall 7 into the chamber 13, and thence into the discharge-tube. When the channel 11 is closed again by the valve 10, the fluid-pressure in the inlet-pipe and chamber 15 is balanced again after a certain time, whereby the cut-off member is again forced to its seat and the wall 7 and prevents further inlet of fluid.

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

A cock or valve comprising a chamber having an inlet forming a seat and an outlet for fluid, a perforated elastic cut-off member of hemispherical form mounted directly over said inlet and adapted to be seated thereon when the cock is closed, perforated walls inclosing said cut-off member while allowing same a limited amount of movement, a chamber inclosed by said perforated walls and cut-off member, a channel communicating with said chamber and the outlet aforesaid and a valve for opening and closing said channel substantially as described.

In witness whereof I have signed this specification in the presence of two witnesses.

JAKOB GUT.

Witnesses:

A. LIEBERKNECHT,

C. G. BOMBELI.