C. SCHEELK.

VALVE WASHER.

APPLICATION FILED JULY 25, 1916.

1,245,516. Patented Nov. 6, 1917.

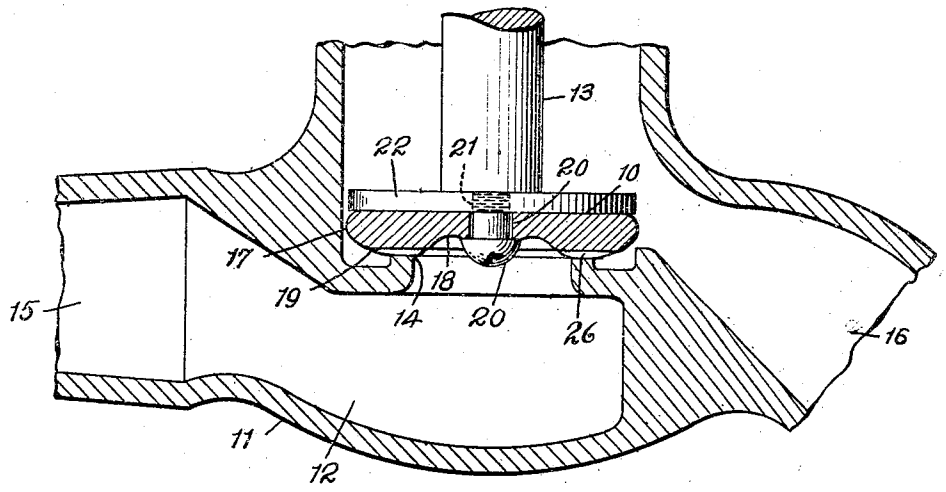


Fig. 1

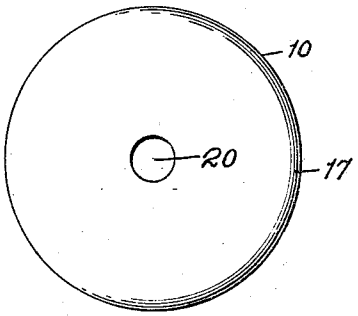


Fig. 2.

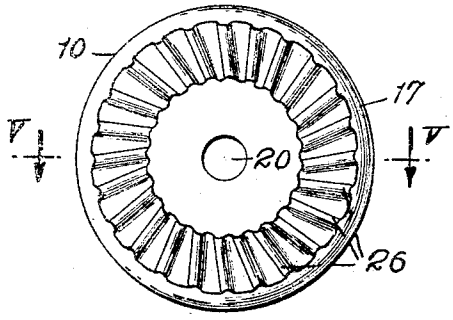


Fig. 3.

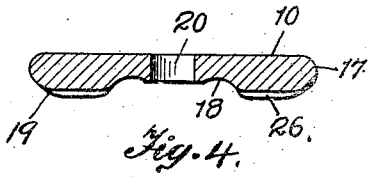


Fig. 4.

Inventor

Claude Scheelk

By his Attorney

W. T. Criswell

UNITED STATES PATENT OFFICE.

CLAUDE SCHEELK, OF NEW YORK, N. Y.

VALVE-WASHER.

1,245,516. Specification of Letters Patent. Patented Nov. 6, 1917.

Application filed July 25, 1916. Serial No. 111,189.

To all whom it may concern:

Be it known that I, CLAUDE SCHEELK, a citizen of the United States, and a resident of New York, county and State of New York, have invented a certain new and useful Improvement in Valve-Washers, of which the following is a full, clear, and exact specification.

This invention relates more particularly to a class of articles of manufacture adapted to be used in conjunction with water faucets.

My invention has for its object primarily to provide a device, or washer designed to be employed especially as a valve for closing the passage through the seat of the valve especially of a water faucet, and which is of a form whereby comparatively light pressure will be required to insure a water-tight engagement with the valve-seat to obviate all leakage as well as being of a form so that any uneveness of the valve-seat resulting from wear, or imperfection of manufacture may be compensated, the device further tending to tightly engage the valve-seat irrespective of all sediment from the liquid which may be deposited thereon. This is accomplished mainly by providing a body adapted to be supported so as to be adjustable toward and from a valve-seat for opening and closing the passage through the seat, and projecting from the body in opposition to the valve-seat are one or a number of compressible members for releasably engaging the seat so as to conform with the engaging surface of the seat.

A further object of the invention is to provide a valve-washer of a simple and efficient form, and which is susceptible of being made in various sizes and shapes so as to sell at an unusually moderate price.

A practical embodiment of the invention is represented in the accompanying drawing forming a part of this specification in which similar characters of reference indicate corresponding parts in all the views, the said invention being more fully described hereinafter, and then pointed out in the claims at the end of the description.

In the drawing Figure 1 is a section taken on the line V—V of Fig. 3 showing a valve washer embodying my invention as applied to a faucet;

Fig. 2 is a top plan view of the washer;

Fig. 3 is an inverted plan view of the washer, and

Fig. 4 is a section taken on the line V—V of Fig. 3.

The device, or valve-washer has a body 10 which may be of any desired size and shape, though this body is preferably in the form of a circular disk so as to be adapted for use in conjunction with the usual types of faucets for discharging and cutting-off the supply of water and other liquids, such faucets being ordinarily provided with a casing 11 having a chamber 12 in which the washer is adjustably supported by means of a shaft, as 13, adapted to be raised and lowered by rotation in the fashion common to the operation of this class of devices so as to move the washer into and out of engagement with a valve-seat, as 14, having its passage communicating with the inlet, as 15, and the outlet, as 16, of the faucet.

The peripheral edge of the body 10 is curved, as at 17, and the central part of the underside of the body is concaved, as at 18. The diameter of this concavity is considerably less than the diameter of the body to provide an annular portion 19 lying in a plane substantially at right angles to the axis of the washer extending downwardly from the underside of the body. The top of the body 10 is flat, as shown, and through the body, centrally of the concavity 18, is an opening 20 through which is passed a screw, or pin, or bolt, as 20ª, which is threaded into the recess, or opening 21 of a nut, or plate 22 provided on the end of the support, or shaft 13 disposed in the casing 11 of the faucet for fastening the washer thereto, or the washer may be held to the support, or shaft 13 by any other suitable means. As the valve-seats of various makes of faucets vary in widths, the annular extending portion 19 of the body 10 of the washer may be of a width somewhat greater than the average widest valve-seat, or the body portion of the washer may be made of different widths to conform in width to the valve-seat of each faucet.

The body 10 is connected to the shaft 13 so that its annular extending portion 19 is in opposed relation to the valve-seat 14 of the faucet, and to insure a water-tight engagement between the valve-seat and this extending portion of the body 10 when the washer is moved thereupon, projecting toward the valve-seat from this extending portion of the body may be one, or a number of

projecting members in the form of ridges, or corrugations, as 26, disposed on the extending portion 19 substantially radially with respect to the center of the body. The member 26 as well as the body of the valve-washer may be made of solder, Babbitt metal, lead, leather, fiber, rubber, or any other suitable material so as to be compressible, or yielding when the members are forced into engagement with the valve-seat for conforming accurately with any irregularities in the valve-seat resulting from imperfections in the manufacture, or from wear thereof as well as serving to clear sediment from the liquid flowing through the faucet which may settle on the valve-seat. Or when the valve-seat is extremely narrow, and when the valve-washer is made of soft metal the edge of the valve-seat will tend to cut through one or more of the members 26 as well as being sunken in the body to form a groove therein when pressure is applied on the device.

In practice when the shaft 13 of the faucet is rotated to move the device on the valve-seat 14, in order to close the passage therethrough, the radially disposed members 26 will contact with the valve-seat, and by the exertion of slight pressure on the shaft to force the device tightly upon the valve-seat the members will be compressed, or yield, or be cut or scored in a manner to closely engage the valve-seat. Liquid being discharged from the faucet will then be cut-off by closing the passage through the valve-seat as well as preventing all leakage of the liquid, and by reversely rotating the shaft the device will be raised from the valve-seat for opening its passage to allow the liquid to flow through the faucet.

In the foregoing description, I have embodied the preferred form of my invention, but I do not wish to be understood as limiting myself thereto, as I am aware that modifications may be made therein without departing from the principle, or sacrificing any of the advantages of this invention, therefore I reserve to myself the right to make such changes as fairly fall within the scope thereof.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. As an article of manufacture, a valve washer adapted to be supported so as to be adjustable toward and from a valve seat for opening and closing the passage therethrough, and a series of ridges projecting from the body of the valve and substantially radially with respect to the axis thereof.

2. As an article of manufacture, a valve washer having a body adapted to be supported so as to be adjustable toward and from a valve seat for opening and closing the passage therethrough, the said body having a curved peripheral edge and a concave central portion in its underside, the portion between the curved edge and the central concave portion lying in a plane substantially at right angles to the axis of the washer, and being provided with a series of ridges extending substantially radially thereon with respect to the axis of the washer.

This specification signed and witnessed this 24th day of July A. D. 1916.

CLAUDE SCHEELK.

Witnesses:
GEORGE F. BENTLEY,
C. SKIEGLEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."