No. 839,855. PATENTED JAN. 1, 1907.

H. JONES.

VALVE.

APPLICATION FILED DEC. 8, 1905.

Fig. 1.

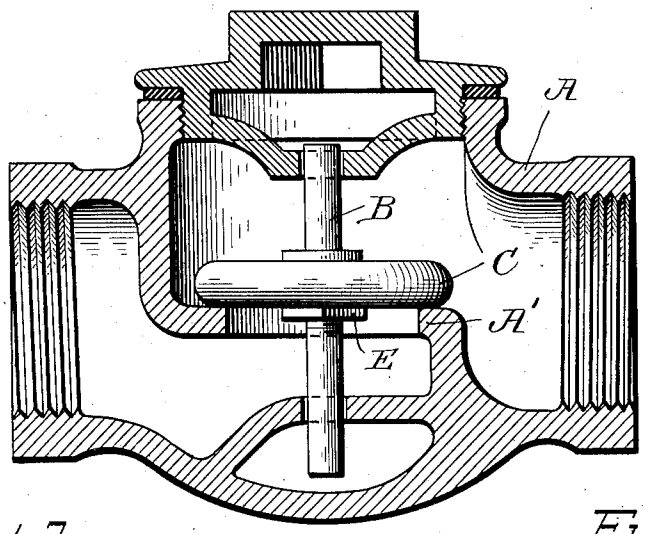


Fig. 2.

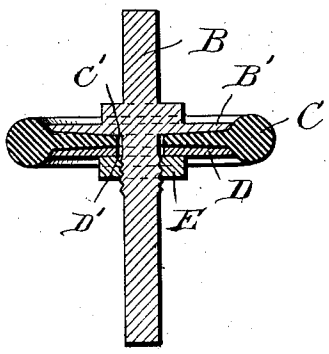


Fig. 4.

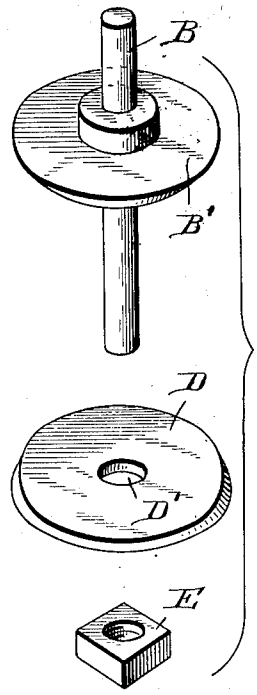
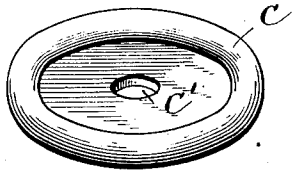


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

HARRY JONES, OF WASHINGTON, DISTRICT OF COLUMBIA.

VALVE.

No. 839,855. Specification of Letters Patent. Patented Jan. 1, 1907.

Application filed December 8, 1905. Serial No. 290,979.

To all whom it may concern:

Be it known that I, HARRY JONES, a citizen of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Valves, of which the following is a specification.

My invention relates to valves; and it consists in the construction and arrangement of the several parts, which will be fully described in the specification, illustrated in the drawings, and particularly pointed out in the claim.

One of the objects of my invention is to provide a valve that may be easily and readily applied to all valve-casings and render the same more effective, durable, and easily repaired.

A further object of my invention is to provide a valve of few parts, simple and effective in operation, and which may be repaired in a few moments without the necessity of employing skilled labor.

I accomplish these objects by the construction shown in the accompanying drawings, forming a part of this application, wherein like letters of reference indicate corresponding parts in the several figures, and in which—

Figure 1 is a vertical section of a valve-casing with the valve and its stem shown in elevation. Fig. 2 is a central vertical section of the valve and its several parts. Fig. 3 is a perspective view of one form of elastic disk employed in connection therewith. Fig. 4 is a perspective view, disassociated, of the valve parts and its securing-nut.

My invention consists, essentially, of a valve having a metal disk of suitable dimensions, preferably formed integral with the upper part of a metal stem, a rubber or other elastic disk, having a central opening therethrough, arranged to slide vertically upon said metal stem and contact with the upper disk, and a lower disk, having a central opening therethrough, arranged to slide vertically upon the metal stem to come in close contact with the elastic disk, the several parts being then secured in position to form the completed valve by means of a screw-threaded nut engaging the lower screw-threaded end of the metal stem, the upper and lower ends of which project a short distance from each metal disk to form bearings for the valve when adjusted in position within the valve-casing, as herein fully described, and illustrated in the accompanying drawings.

Referring to the drawings, A represents a vertical section of a valve-casing, and A′ the valve-seat thereof. The valve is composed of a valve-stem B, having a disk B′ of suitable dimensions, preferably formed integral therewith, and said stem projecting upwardly therefrom to form the upper bearing of the valve.

C represents an elastic ring or gasket having a central opening C′, which is adapted to slide vertically upon the valve-stem B until said ring or gasket comes into contact with the lower surface of the disk B′. This ring or gasket is so constructed that its outer enlarged periphery will extend slightly beyond the peripheries of the two metal disks between which it is supported to form a perfect cushion between the valve and the valve-seat.

D represents a lower disk formed similar to that of the fixed disk B′, having a central hole or opening D′ arranged therethrough to permit of its sliding vertically upon the valve-stem B up into close contact with the elastic ring or gasket C, where it is tightly held in position between the two disks B′ and D by means of a screw-threaded nut E engaging the lower screw-threaded end of the valve-stem B, as fully shown in Figs. 2 and 5 of the drawings.

In Fig. 3 I have shown an elastic disk C, with an enlarged oval-shaped rim or periphery terminating in a central portion, tapering from thence to the central opening C′, as shown, the object of which is to provide an enlarged surface on the periphery of the disk. The rim of disk C is enlarged, so that it may be turned up under pressure of the water from below, so as to allow the disk D to come in close contact with the valve-seat, as the rim of disk C will permit of such seating. This turning up of the rim of the disk C will also permit any grit, sediment, or sand which may collect under the valve during the preceding action to be washed away by the liquid passing from below the valve around and about it by the succeeding action.

By means of my invention I am enabled to provide a valve which embodies simplicity of parts, efficiency in its action, and durability of construction, combined with the ease and rapidity with which it may be repaired. When the elastic disk becomes worn or defaced from constant use, the nut E may be

unscrewed from the stem B, the movable disk D and the worn elastic disk C removed, and a new elastic disk C inserted into position and the parts again restored to their normal position to produce an operative valve.

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

In a reciprocatory valve the combination with a rigid body having a packing-receiving surface with a stem projecting therefrom, of a flexible gasket surrounding said stem and resting on and projecting radially beyond said surface, a clamping-plate of less diameter than said gasket surrounding said stem and bearing against the gasket and having a seating-surface upon its outer side transverse to the line of movement of the valve, and a fastening device engaging said stem and bearing against said clamping-plate.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

HARRY JONES.

Witnesses:
CHAPMAN W. FOWLER,
PARKER H. SWEET, Jr.