

R. A. LYONS.
PUMP VALVE.
APPLICATION FILED OCT. 26, 1910.

1,006,964.

Patented Oct. 24, 1911.

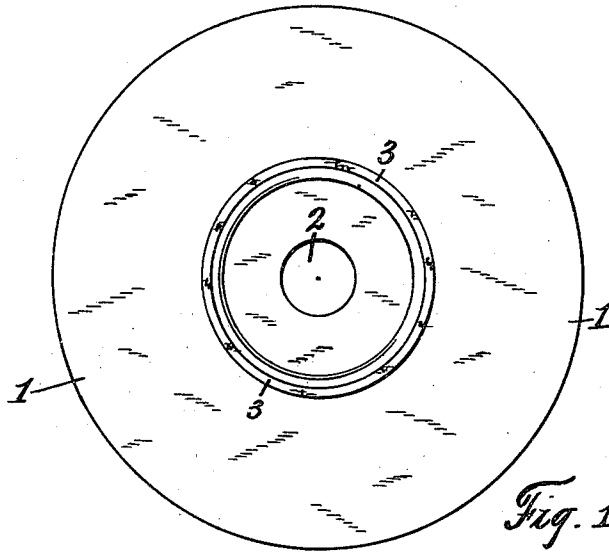


Fig. 1

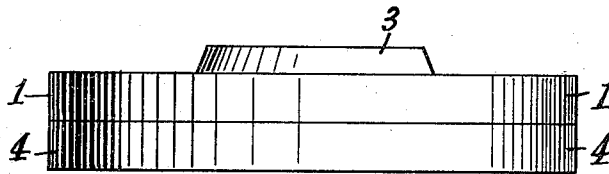


Fig 2.

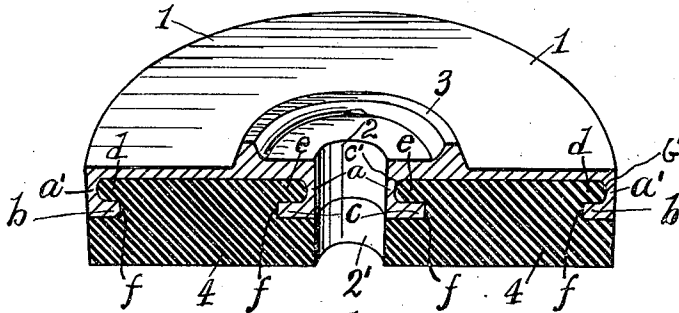


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

ROBERT A. LYONS, OF LONDON, ONTARIO, CANADA.

PUMP-VALVE.

1,006,964.

Specification of Letters Patent.

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Application filed October 26, 1910. Serial No. 589,284.

To all whom it may concern:

Be it known that I, ROBERT A. LYONS, a subject of the King of Great Britain, and a resident of the city of London, in the county of Middlesex, in the Province of Ontario, Canada, have invented a new and useful Pump-Valve, of which the following is a specification.

This invention relates to a device for opening and closing a passage to control the supply of liquids or such like material, the object being to lessen the amount of rubber or any other like composition used in a pump valve or the like; and it consists of the improved construction and novel combination of parts of the same as will be hereinafter first fully set forth and described and then pointed out in the claim, reference being had to the accompanying drawings forming part of this specification, wherein:

Figure 1 is a top or plan view of a pump valve embodying my invention. Fig. 2 is a side view of same. Fig. 3 is a central cross sectional view in perspective of Fig. 1.

Referring to the drawings in detail, 1 denotes a circular disk provided with a centrally-disposed opening 2 and having its upper face formed with an annular flange 3 which surrounds the opening 2.

The lower face of the disk 1 has depending therefrom an annular extension —a—, the inner face of which forms a continuation of the wall of the opening 2. The lower end of the annular extension —a— is provided with a laterally-extending annular flange —c— which in connection with the lower face of the disk 1 provides a pocket —c'—. Depending from the disk 1 is an annular rim —a'— having its outer face flush with the edge of the disk 1. The rim —a'— at its lower end is formed with an inwardly-extending annular flange —b— which in connection with the lower face of the disk 1 provides a pocket —b'—. The function of the pockets —c'— and —b'— will be presently referred to. The extension —a— and rim —a'— are integral with the disk 1.

The reference character 4 denotes the body-portion of the valve and which is

formed of any suitable composition preferably rubber, and is provided with a neck —f— and projections —d— and —e—. The body-portion —4— is provided with a centrally-disposed opening 2', the wall of which forms a continuation of the inner face of the extension —a— and the wall of the opening 2. When the body-portion is secured in position, it is flush with the outer face of the rim —a'—, the neck abuts against the edges of the flanges —c— and —d— and the projections —e— and —d— extend into the pockets —c'— and —b'—, the pocket portion snugly fitting against the lower face of the flanges —c— and —d—, the opposing edges of the flanges —c—, —d—, the outer faces of the flanges —c—, —d—, against the extension —a— and rim —a'— and also against the lower face of the disk 1. This firmly and rigidly locks the body-portion 4 in position.

The valve rod, not shown, is inserted and secured in the opening, 2, and the pump valve formed of the metal portion 1 and the rubber portion 4 is inserted in a cylinder, not shown.

By setting up a valve in the manner as stated, the amount of rubber or other composition 4 used in this valve is thereby lessened thus making a pump valve which will be simple, strong, durable and cheap in construction and efficient in practical use.

Having thus described my invention, I claim;—

A pump valve comprising a disk having a centrally-disposed opening and a vertically-extending flange surrounding said opening, an annular extension depending from said disk and having its inner face forming a continuation of the wall of said opening, a rim depending from the lower face of the disk and having its outer face forming a continuation of the edge of the disk, said extension provided with a laterally-extending annular flange, said rim formed with a laterally-extending annular flange, said flanges opposing each other and in connection with said disks providing a pair of pockets, a body-portion including a neck and a pair of projections, said body-portion having a centrally-disposed opening

with the wall thereof forming a continuation of the inner face of said extension, said body-portion being flush with the outer face of said rim, the neck of said body-portion
5 abutting against the edges of said flanges and the projections of said body-portion being snugly secured in said pocket.

In testimony whereof, I have signed in the presence of the two undersigned witnesses:

ROBERT A. LYONS.

Witnesses:

P. J. EDMUNDS,

S. HARDY.

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