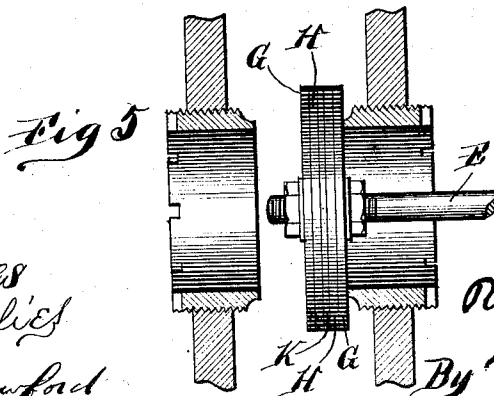
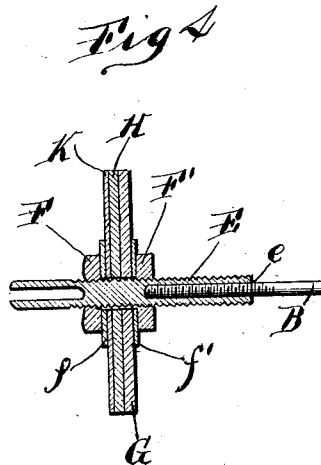
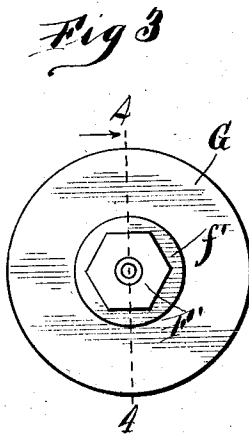
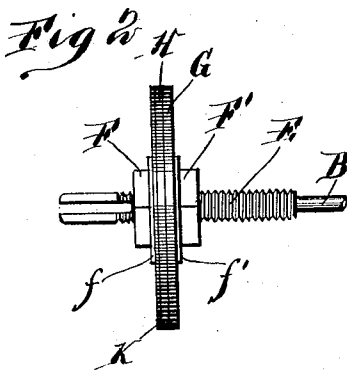
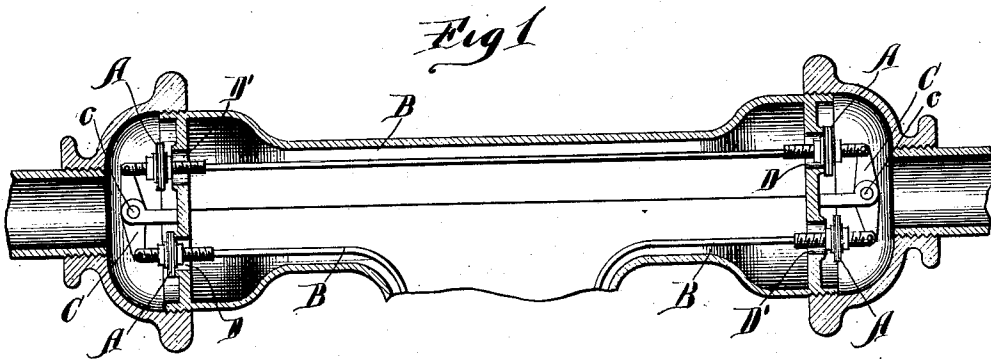


(No Model.)

R. H. BUCKINGHAM.
VALVE.

No. 603,592.

Patented May 3, 1898.



Witnesses
W. C. Corlies
C. H. Crawford

Inventors
Roswell H. Buckleham
Thomas J. Rodman
Atty

UNITED STATES PATENT OFFICE.

ROSWELL H. BUCKINGHAM, OF EVANSTON, ILLINOIS.

VALVE.

SPECIFICATION forming part of Letters Patent No. 603,592, dated May 3, 1898.

Application filed October 7, 1897. Serial No. 654,421. (No model.)

To all whom it may concern:

Be it known that I, ROSWELL H. BUCKINGHAM, a citizen of the United States, residing at Evanston, in the county of Cook and State of Illinois, have invented a new and useful Valve, of which the following is a specification.

My invention relates to improvements in valves which are used in gas-meters, and more particularly to those used in meters of similar construction shown in Letters Patent No. 588,632, dated August 24, 1897, granted to me. In practice it has been found that where rubber or any of its compounds are employed the rubber becomes disintegrated or softened by the action of the gas and adheres to the valve-seats, thereby materially impeding the action of the meter.

The objects of my improvement are, first, to provide a valve having a flexible surface which shall yield slightly under a limited pressure to form a tight joint with the valve-seat, and, second, which shall be unaffected by the action of the gas or any of its several ingredients. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a section, partly broken away, showing valves and valve-seats of a gas-meter; Fig. 2, a side view of valve; Fig. 3, a front view of same; Fig. 4, a section through the line 4 4 of Fig. 3; Fig. 5, a detail section showing double valve-seats and single valve.

Similar letters refer to similar parts throughout the several views.

In Fig. 1 the valves A A A A, provided with the valve-rods B B B, the latter connected together by the arms C C, centrally pivoted at c c, are alternately seated and unseated in the valve-seats D D D' D' by the action of the diaphragm of the meter and its connecting parts. (All not shown in the figures.)

The valves A A A A, as shown in Figs. 2, 3, and 4, consist of the internally and externally threaded shaft E, provided with the nuts F F', and washers f f', for holding in position, surrounding the shaft E, the flexible surface G, composed, preferably, of leather, which is backed by an elastic cushion H, preferably of loosely-woven or felted cloth, and these both being held in position by the stiff metallic back K.

Where a single valve is used with a double set of valve-seats, as shown in Fig. 5, two flexible surfaces G G, with two cushions H H and a single metallic back or plate K, may be used.

In practice when the valve is brought into contact with the valve-seat any slight inequalities in the surface of said seat will be taken up by the elasticity of the cushion; also, if the line of action of the valve-stem is not exactly at right angles with the plane of the valve-seat the joint will still be a tight one.

What I claim, and desire to secure by Letters Patent, is—

1. In a gas-meter valve in combination with the shaft E, the flexible surface G, cushion H, and metallic back K, substantially as described.

2. In a gas-meter valve in combination with the shaft E, provided with the nuts F F' and washers f f' the flexible surface G, cushion H, and metallic back K, substantially as described and for the purposes set forth.

3. A double valve for gas-meters, consisting of the combination of the shaft E, the flexible surfaces G G, cushions H H, and metallic plate K, substantially as described.

ROSWELL H. BUCKINGHAM.

Witnesses:

JESSE C. EMERY,
WILLIAM MARTZ.