

UNITED STATES PATENT OFFICE.

PETER MUNZINGER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SHUT-OFF VALVES FOR GAS-WORKS.

Specification forming part of Letters Patent No. 132,917, dated November 12, 1872.

To all whom it may concern:

Be it known that I, PETER MUNZINGER, of the city and county of Philadelphia and State of Pennsylvania, have invented a certain Improvement in the Shut-Off Valves of Gas-Works, of which the following is a specification:

The invention relates to the shut-off valve known as the rotary valve and drip-chamber; and consists in protecting the contact-edges of the diaphragms or partitions of the drip-chamber and the rotary valve from the deleterious action of the gas, moisture, &c., when the valve is open, and to such other purposes as it may be applicable.

Figure 1 is a sectional perspective view of a shut-off valve, the rotary valve being closed. Fig. 2 is a sectional perspective view of Fig. 1, the rotary valve being open.

A is a shut-off valve, which is located in a line of pipe. It is for stopping the gas from and directing it to any part of a gas-works. B is the rotary valve, and C the drip-chamber composing the same. The rotary valve and the drip-chamber are divided diametrically by the diaphragms or partitions D D'. The valve-partition D extends the height of the same, and divides it into two separate and distinct sections, *a b*. The drip-chamber partition D' extends from the top to within a short distance of the bottom to permit the free circulation of the water E, which forms the water-seal for preventing the escape of the gas from one section, *c*, of the drip-chamber to the other, *d*, when the flow is shut off by the valve B, as shown at Fig. 1. The contact edges *e f* of the partitions D D' are faced and trued to exactly conform, so that when the partitions are in the same vertical plane—that is, when the valve is turned for shutting off the gas—they will make a perfectly gas-tight joint, Fig. 1. The

drip-chamber partition D' is placed transversely between the nozzles F G, as shown. When the valve is set for passing the gas its partition D is at right angles to the partition D', in a vertical plane passing through the center of the nozzles, Fig. 2. It will be observed that the contact or joint edges *e f* are, when in this position, exposed to the deleterious action of the gas, moisture, &c., which will corrode and otherwise render them unfit for making a gas-tight joint when they are placed as shown at Fig. 1. To correct this I fix in both the valve B and the drip-chamber C edge or surface protectors H H' at right angles to the partitions D D', respectively, so that when the valve is open the edge *e* of its partition D will form a gas-tight joint with the upper edge *g* of the plate H' of the drip-chamber, and similarly the partition D' of the drip-chamber will form a gas-tight joint with the plate H of the valve.

The edges of the partitions D D' face and form a gas-tight joint when the valve is closed, as shown at Fig. 1. When the valve is open, as shown by the decreased sectional view, Fig. 2, the contact-edges *e f* of the partitions face on the protectors H H', whereby they are protected from the action of the gas, &c.

I claim as my invention—

1. Facing or edging the partitions D D', substantially for the purpose shown and described.

2. The partitions D D', in combination with the plates H H', for the purpose shown and described.

In testimony whereof I hereunto sign my name in presence of two subscribing witnesses.

PETER MUNZINGER.

Witnesses at signing:

JOS. R. TASKER,

FRANCIS D. PASTORIUS.