2 Sheets--Sheet 1.

P. MUNZINGER.

Improvement in Center Seals for Gas-Works.

No. 115,632. Patented June 6, 1871.

Fig. 1.

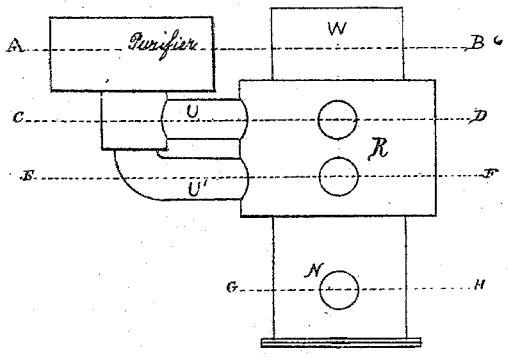


Fig. 2.
Section IK.

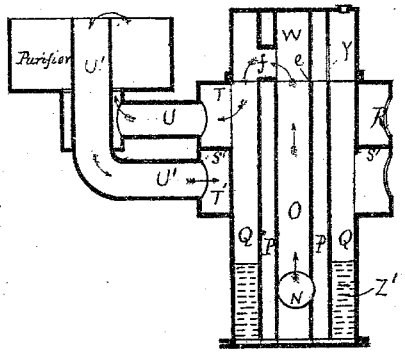


Fig. 3

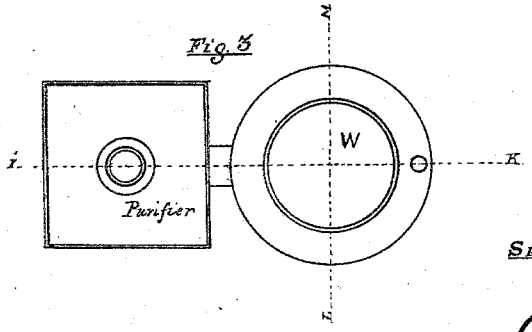


Fig. 4.
Section LM.

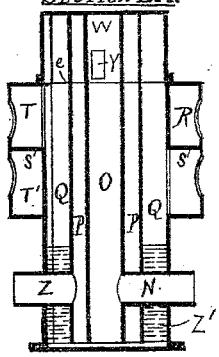


Fig. 8.
Section GH.

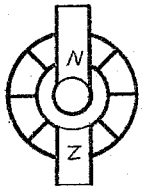


Fig. 5
Section AB.

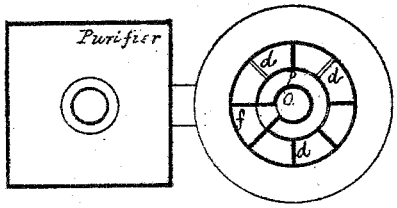


Fig. 6.
Section CD.

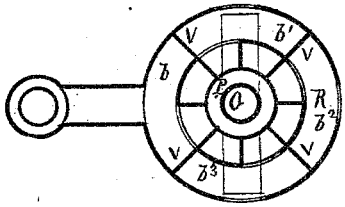
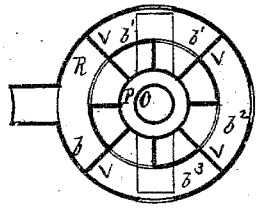


Fig. 7.
Section EF.



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P. MUNZINGER. 2 Sheets--Sheet 2.

Improvement in Center Seals for Gas-Works.

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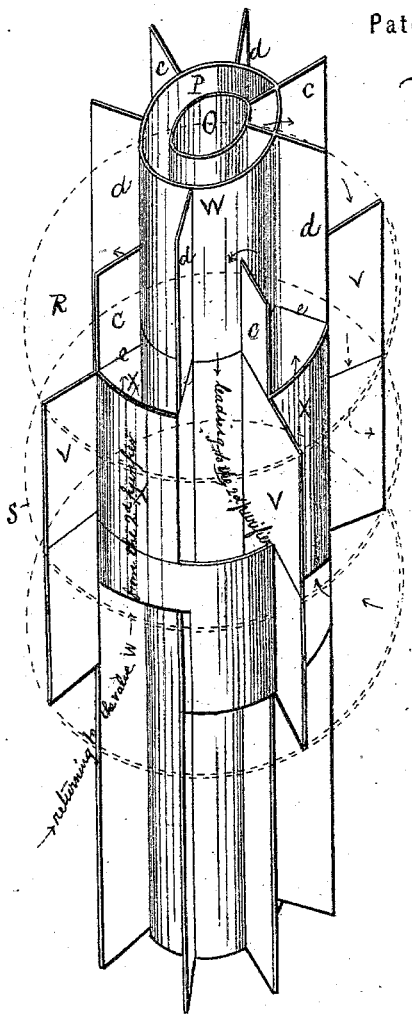
Fig. 9.



→ leading to the 1st purifier through the pipe U figs. 2, 10 →

- returning from the first purifier into the lower chamber T' and up through the pipe X ← into the valve W

Fig. 12.

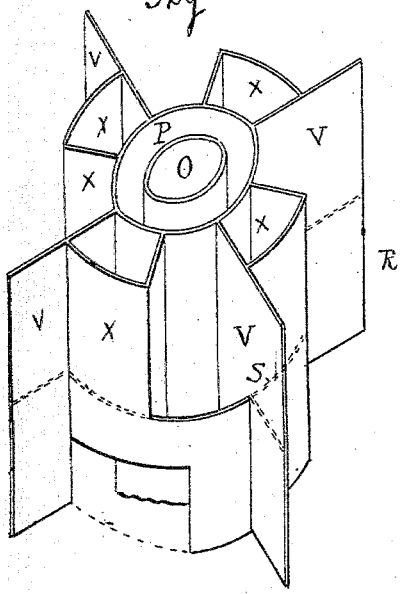


Fig. 10.

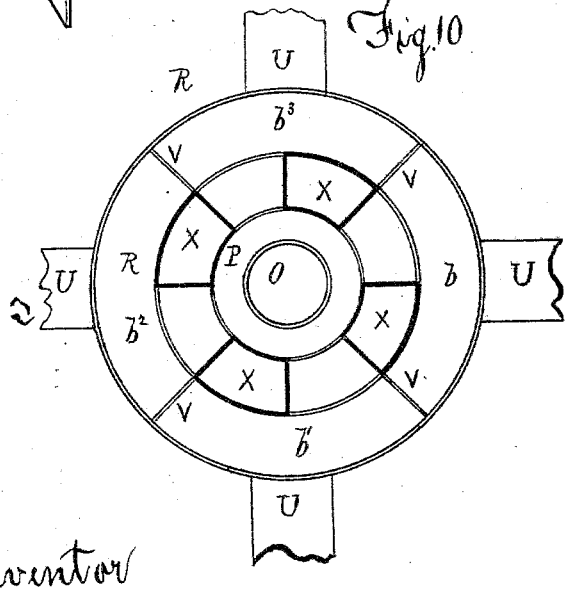
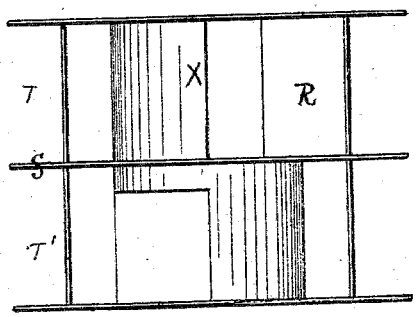


Fig. 11.



Witnesses
Amallester
Geo. McLovan

Inventor
Peter Munzinger
by Francis D. Pastorius
his Attorney in fact

UNITED STATES PATENT OFFICE.

PETER MUNZINGER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CENTER-SEALS FOR GAS-WORKS.

Specification forming part of Letters Patent No. 115,632, dated June 6, 1871.

I, PETER MUNZINGER, of the city and county of Philadelphia and State of Pennsylvania, have invented an Improved Center-Seal for Gas-Works, of which the following is a specification:

The invention consists, first, in dividing the distributing-chamber horizontally into two parts; second, in the use and application of vertical distributing-pipes.

Description of the Accompanying Drawing.

Figure 1 is a side or surface view. Fig. 2 is a vertical section through I K, Fig. 3. Fig. 3 is a top view. Fig. 4 is a vertical section through L M, Fig. 3. Fig. 5 is a section through A B, Fig. 1. Fig. 6 is a section through C D, Fig. 1. Fig. 7 is a section through E F, Fig. 1. Fig. 8 is a section through G H, Fig. 1. Fig. 9 is an isometrical perspective with the casing removed. Fig. 10 is a plan view of the distributing-chamber, showing the pipes leading to and from the purifiers. Fig. 11 is a view of the distributing-chamber, the casing being removed. Fig. 12 is a perspective view of the distributing-chamber, the casing being also removed.

General Description.

N, Figs. 1, 2, 4, and 8, is a connecting-pipe from the condenser or washer to the inlet-pipe O, around and concentric with which, or equivalently so, are the outlet and drip pipes P Q. R, Figs. 1, 2, 4, 6, 9, 10, 11, and 12, is a cylindrical gas-distributer. It is divided transversely by a horizontal diaphragm, S, into the upper and lower chambers T T′, communicating with the several purifiers arranged around the center-seal, as shown by the pipes U U^1 U^2 U^3. The distributer is again divided by the vertical radial partitions V, which extend through the chambers T T′ into the slips *b* b^1 b^2 b^3, Fig. 10, commensurate with the number of purifiers, four being used in this instance. W, Figs. 1, 2, 3, 4, 5, 9, is a loose or circular valve, which is divided by the radial partitions *c*, corresponding in number with the radial partitions V of the distributer R, and also by the partitions *d*, Figs. 5 and 9, commensurate in number with the vertical pipes X, Figs. 6, 7, 9, 10, 11, and 12. The vertical pipes X are the means whereby the gas is returned from the purifiers into the valve W without getting into the upper chamber T. Openings are formed in the transverse diaphragm S, through which the pipes pass and form ground joints with the lower edges of the radial partitions of the valve. The number of pipes must correspond with the number of purifiers. The gas from the condenser or washer is forced through the connecting-pipe N into the inlet-pipe O, Figs. 2 and 4, from which it passes through the inlet or opening *f*, Figs. 2 and 5, and the arrow line, Fig. 9, in the valve W, into the slip *b*, Fig. 10, of the upper chamber T, and is forced through the pipe U into the first purifier, and returns through the lower-pipe U^1 into the lower slip *b* of the lower chamber T′, Fig. 2. It then passes through the pipe or up-take X into the valve W, Fig. 9, and is deflected by the partition *d* of the valve into the second slip b^1, and out of the pipe U^2, Fig. 10, into the second purifier; returning by the lower pipe into the lower chamber of the distributer it passes up the up-take X′ to the valve again. The gas pursues this course until it has gone through all the purifiers and flows into the outlet-pipe P at the opening Y, Figs. 2 and 4, from which it is taken by the pipe Z. The construction of the valve is such that one purifier is always shut off for cleaning or repairing. The radial partitions of the slips and pipes or up-takes X form ground-joints with the partitions *c* and *d* of the valve to prevent the gas from leaking from one slip to another. Any required purifier can be shut off by simply turning the valve until the radial partitions of that slip form continuous divisions with those of the valve. To prevent the gas from getting from one slip to another by passing down the drip-pipes and under the divisions, a water-seal, Z′, is formed, as shown at Figs. 2 and 4. The tar and ammoniacal liquor dropped by the gas in its passage to and from the several purifiers flow from the slips through openings into the drip-pipe Q and mix with the water forming the seal.

I do not claim as new the concentric inlet, outlet, and drip pipes O P Q, the rotary valve W, and the covered ground radial joints, they being protected by Letters Patent of the United States No. 109,540, issued to me on the 22d day of November, 1870.

I claim as my invention—

1. The distributing-chamber R, divided in

two parts by the horizontal diaphragm S, for the purpose shown and described.

2. The vertical pipes or up-takes X, which connect the lower distributing-chamber T′ with the valve W.

3. Combination and arrangement of the inlet, outlet, and drip pipes O P Q, the distributing-chamber R, the pipes X, and the valve W, as shown.

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

PETER MUNZINGER.

Witnesses:
FRANCIS D. PASTORIUS,
JOHN YILLE.