

P. Munzinger,

3. Sheets, Sheet 1.

Gas Purifier.

No. 109540.

Patented Nov. 22. 1870.

Fig. 1
SECTION U-U'

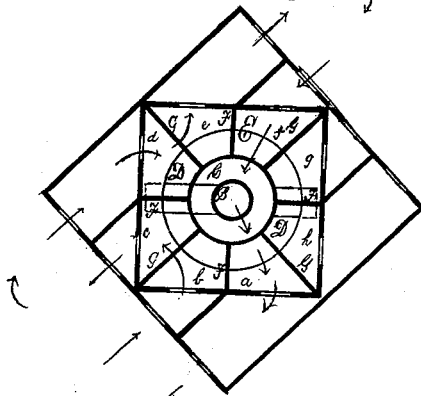


Fig. 2
SECTION W-W'

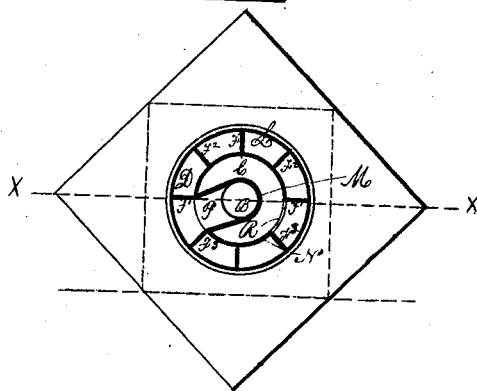


Fig. 3
SECTION X-X'

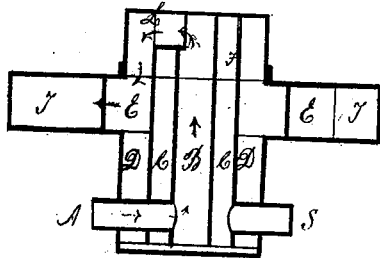


Fig. 4.

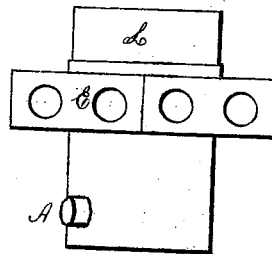
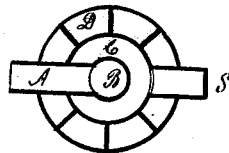
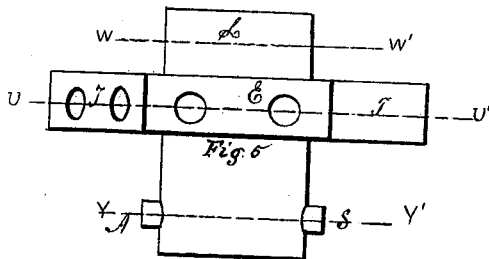


Fig. 6
SECTION Y-Y'



WITNESSES:

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John C. B. Hicks

INVENTOR:

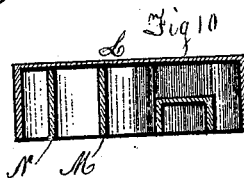
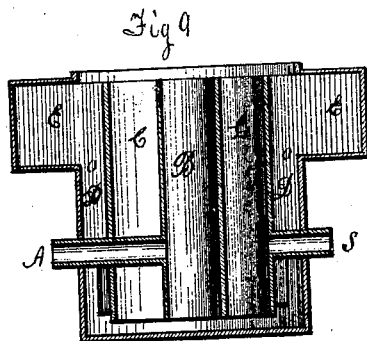
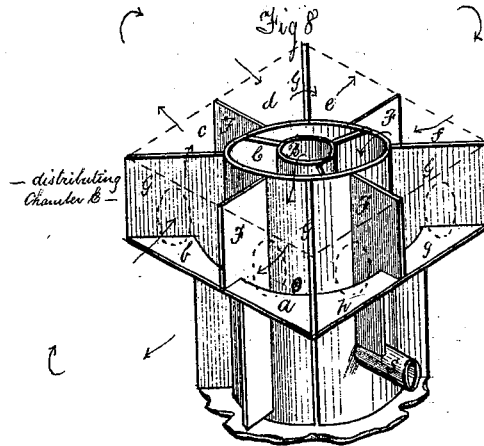
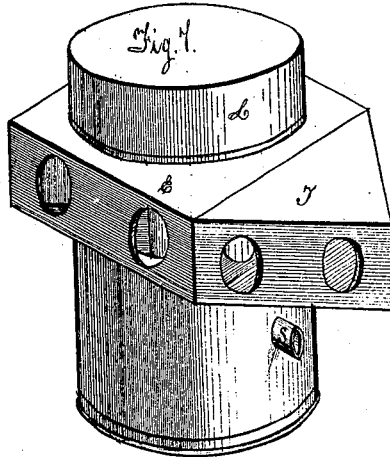
Peter Munzinger

F. Munzinger,

Gas Purifier.

No. 109,540.

Patented Nov. 22. 1870.



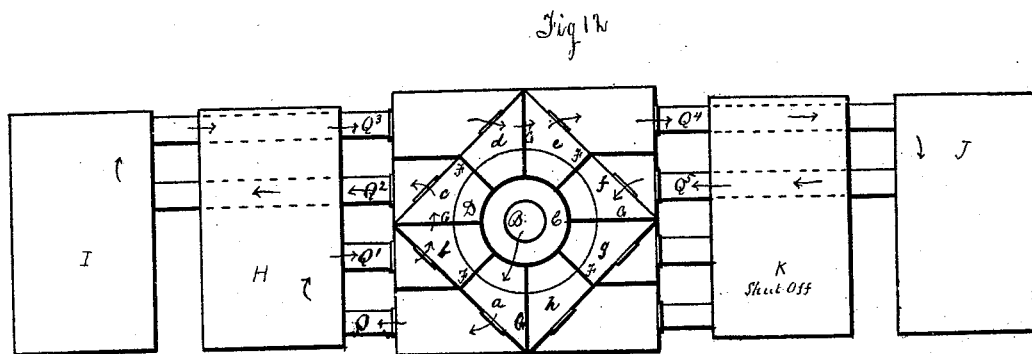
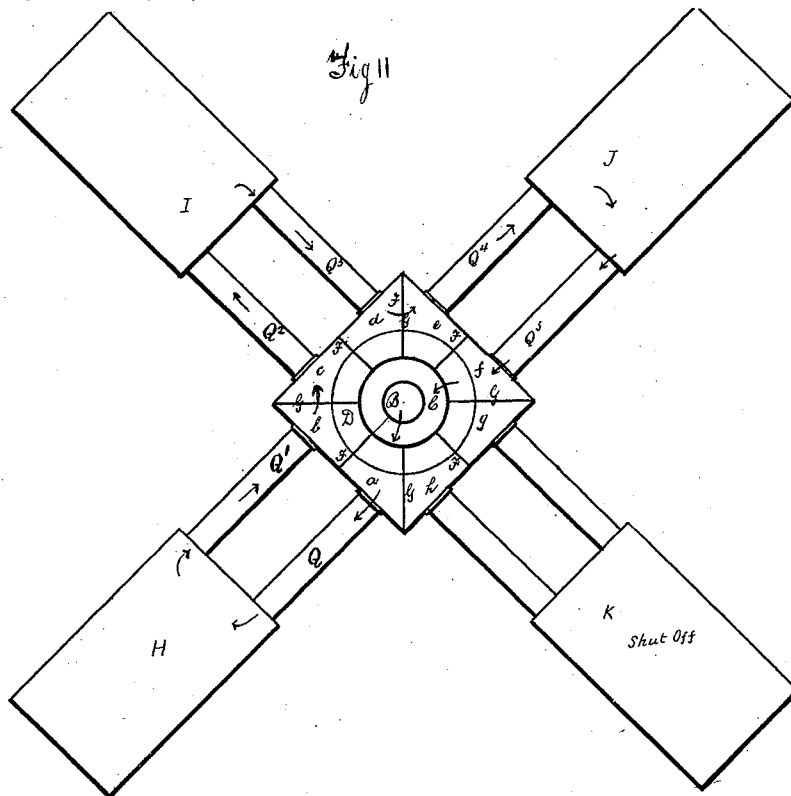
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 John Mills

P. Munzinger, 3. Sheets. Sheet 3.

Gas Purifier.

No. 109540.

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UNITED STATES PATENT OFFICE.

PETER MUNZINGER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CENTER SEALS FOR GAS-WORKS.

Specification forming part of Letters Patent No. **109,540**, dated November 22, 1870.

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 an Improved Center Seal for Gas-Works, of which the following is a description.

The invention consists, first, of concentric inlet, outlet, and drip pipes; second, of a distributing-chamber divided into compartments commensurate with the number of purifiers; third, of a rotary valve for directing the flow of the gas to the several purifiers and for shutting off any purifier for cleaning, &c.; fourth, of covered ground joints formed by the partitions of the rotary valve and the distributing-chamber; fifth, of angle-boxes for changing the direction of the gas flow to and from the purifiers.

In the accompanying drawings, Figure 1 is a transverse section through U U', Fig. 5. Fig. 2 is a plan view, partly sectioned, through W W', Fig. 5, showing the radial partitions of the valve. Fig. 3 is a vertical section through XX', Fig. 2. Fig. 4 is a surface view. Fig. 5 is a surface view with the angle-boxes attached. Fig. 6 is a transverse through Y Y', Fig. 5. Fig. 7 is a perspective view. Fig. 8 is a perspective view with the casing removed to show the partitions or divisions of the distributing-chamber. Fig. 9 is a vertical section. Fig. 10 is a section of the loose or rotary valve. Figs. 11 and 12 are plan views.

A, Figs. 3, 5, 6, and 9, is a connecting-pipe from the condenser or washer to the center or inlet pipe, B. Around and concentric with or equivalently so are the outlet and drip pipes C and D.

E, Figs. 1, 3, 7, 8, and 9, is a distributing-chamber, connecting with the inlet, outlet, and drip pipes. It is divided by the radial partitions F, Figs. 1 and 8, into a number of compartments commensurate with the number of purifiers. These are again divided into slips by the radial partitions G. In this instance there are four compartments and eight slips—viz., *a b c d e f g h*, Fig. 8—connecting four purifiers, H I J K, Figs. 11 and 12.

L, Figs. 2, 3, 4, 5, 7, and 10, is a loose or circular valve, which is divided by radial partitions F', Figs. 2 and 3, corresponding throughout with those of the distributing-chamber E to form ground-joints to prevent the gas from

acting on and destroying the edges of the partitions, and thereby permit it to circulate from one slip to another without passing through the purifiers. To flow the gas from one slip to another every other partition, F², is shortened, as shown at Fig. 3, the gas passing over them.

The inner ring, M, Fig. 2, of the valve has the same diameter as the inlet-pipe B, Fig. 1. The outer ring, N, has the same diameter as the inlet-pipe, C, on which they fit, making perfectly gas-tight joints.

The gas from the condenser or washer is forced through the connecting-pipe into the center or inlet pipe, B, Figs. 1, 3, and 9, from which it passes through the pipe P in the valve, Fig. 2, into the slip *a*, Figs. 8 and 11, and is deflected by the first ground joint or radial partition F through the pipe Q into the first purifier, H, Figs. 11 and 12, after passing through which it returns through the pipe Q' into the slip *b* and passes over the top of the short partition F², Figs. 2 and 3, of the valve L into the slip *c*, when it is deflected by the ground-joint partition F through the pipe Q² into the second purifier, I. Returning by the pipe Q² into the slip *d*, it passes over the short partition F² into the slip *e*, being deflected by the transverse or ground-joint partition F through the pipe Q⁴ into the third purifier, J. The pipe Q⁵ returns it into the slip *f*, when it is turned by the ground-joint partition through the opening R, Fig. 2, into the outlet-pipe C, from which it is taken by the pipe S, Figs. 3, 5, 6, 8, and 9.

It will be observed that the slips *g* and *h*, communicating with the fourth purifier, K, Figs. 8, 11, and 12, are shut off and separated from the others by the valve L. The radial partitions F³ of the valve form ground joints with the partitions of the distributing-chamber for the purpose of cutting off any given purifier for cleaning, &c. The others can be shut off in turn by simply rotating the valve of the proper position.

When circumstances require the purifiers to be ranged along the building, as shown at Fig. 12, instead of around the center-seal, angle-boxes T are used, as shown at Figs. 1, 2, 3, 4, 7, 9, and 12. They can either be cast with the distributing-chamber or be bolted or otherwise secured to it. The tar and ammoniacal liquor dropped by the gas in its passage flow from the several slips into the drip-pipe D at the

openings O' Figs. 3, 7, and 9, and drop into the box O, beneath.

I claim as my invention—

1. The concentric inlet, outlet, and drip pipes, substantially for the purpose shown and described.

2. The distributing-chamber E, as shown and described.

3. The rotary valve L, substantially as and for the purpose shown and described.

4. The covered ground radial joints or partitions F, as shown and described.

5. The angle-boxes T, for the purpose 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 YILLS.