J. H. Sutton,

Hydraulic Seal.

No. 105,277. Patented July 12. 1870.

Fig. 1.

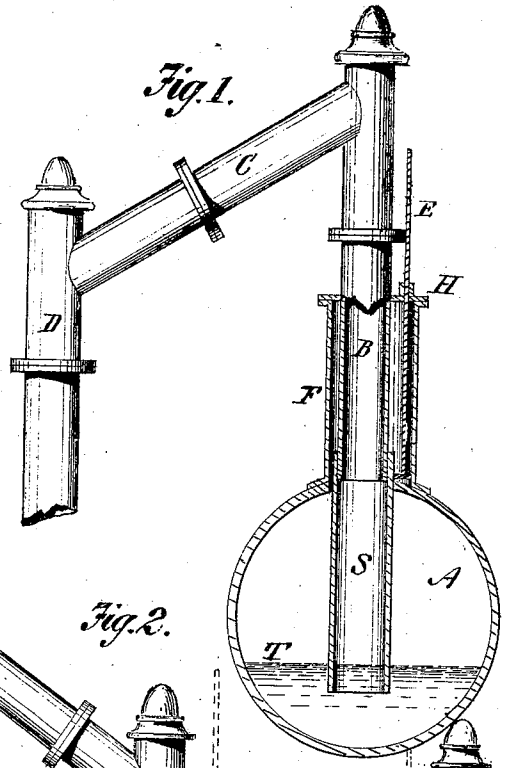


Fig. 2.

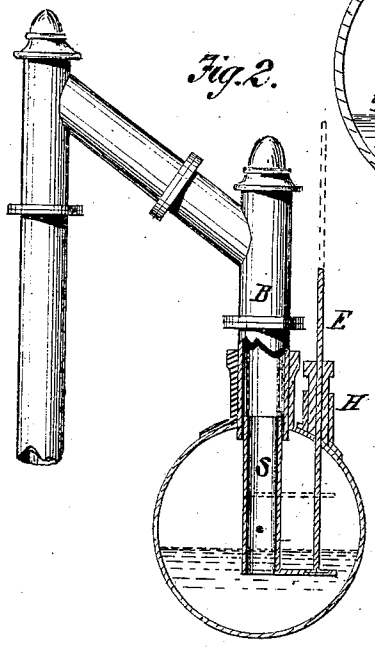
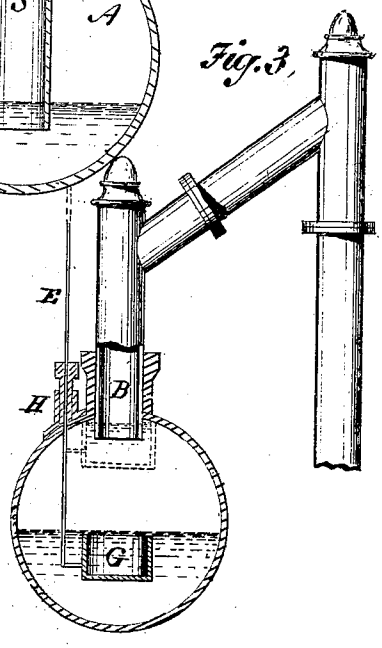


Fig. 3.



Witnesses

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JAMES H. SUTTON, OF HONESDALE, PENNSYLVANIA.

Letters Patent No. 105,277, *dated July* 12, 1870.

IMPROVEMENT IN HYDRAULIC SEAL.

The Schedule referred to in these Letters Patent and making part of the same.

I, JAMES H. SUTTON, of Honesdale, in the county of Wayne and State of Pennsylvania, have invented certain Improvements in Hydraulic Seal in Gas-Works, of which the following is a specification.

Nature and Object of the Invention.

My invention has for its object to provide the dip-pipes in gas-works with an adjustable dip or seal which will serve to entirely remove the back-pressure in the retorts, and increase the area of the hydraulic main, by having that part of the dip-pipe usually passing down into the main, cut off and replaced by a movable piece capable of being slid up out of the main when the retorts are in operation.

Description of the Accompanying Drawing.

Figure 1 is a cross-section of the hydraulic main, and vertical section of the lower part of the dip-pipe, B, with bridge-pipe, C, and stand-pipe, D, attached.

Figure 2 is a view of another adjustment of the sliding pipe, S, with elevating-rod, E.

Figure 3 shows the elevating-rod E attached to a cup or vessel, G, which seals by elevating to the place shown in dotted lines.

General Description.

A is the hydraulic main, as ordinarily used, in fig. 1, but having a hood or outside pipe, F, to the lower part of dip-pipe B. This permits the sliding pipe S to move up freely out of the hydraulic-main, by means of the elevating-rod E, which passes through the stuffing-box H. When the retorts are to be charged before removing the lids, the sliding pipe S is moved down until the lower end is immersed in the water or tar, T, which effectually seals the pipe and prevents the gas escaping.

When the retorts are charged and lids replaced, the sliding pipe is withdrawn, leaving the main free and unobstructed for the gas to flow through it to the purifiers and gas-holder.

Fig. 2 has no hood, the sliding pipe S moving inside the pipe B instead.

Fig. 3 has the sliding pipe S substituted by the vessel G, which carries the sealing liquid up to the short pipe B, as shown in dotted lines.

Claim.

The sliding pipe S and elevating-rod E, as arranged in combination with the dip-pipe B, outside pipe or sheath F, and the hydraulic main A, for operating in the manner herein described.

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