W. M. COSH.

GAS-WASHING APPARATUS.

No. 193,397. Patented July 24, 1877.

Fig. 1

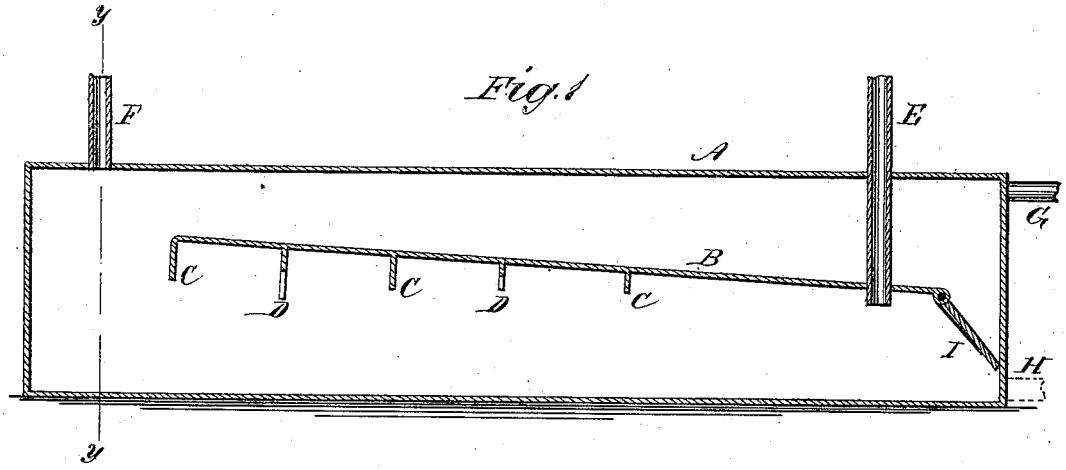
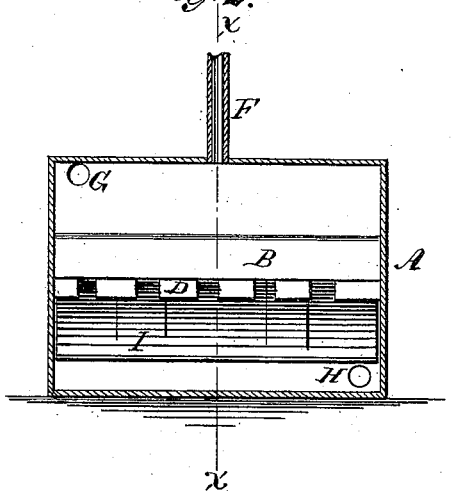


Fig. 2.



WITNESSES:

Francis McArdle.

J. H. Scarborough

INVENTOR:

W. M. Cosh

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM M. COSH, OF CONSHOHOCKEN, PENNSYLVANIA.

IMPROVEMENT IN GAS-WASHING APPARATUS.

Specification forming part of Letters Patent No. **193,397**, dated July 24, 1877; application filed April 2, 1877.

To all whom it may concern:

Be it known that I, WILLIAM M. COSH, of Conshohocken, Montgomery county, Pennsylvania, have invented a new and Improved Gas-Washing Apparatus, of which the following is a specification:

Figure 1 is a longitudinal section on line *x x* in Fig. 2; and Fig. 2 is a transverse section on line *y y*, Fig. 1.

The invention will first be described in connection with the drawing, and then pointed out in claim.

Referring to the drawings, A is the ordinary gas-washing box, and B an inclined longitudinal partition, which, in a transverse direction, is horizontal. This shelf or partition extends from a point near the outlet gas-pipe near to the opposite end of the washing-box. C C are plain transverse ribs or brakes that project downward from the under surface of the shelf B, and D D are notched transverse ribs that are placed between the ribs C, and project in the same direction. E is an inlet gas-pipe, which leads from the gas-generator, and projects downward through the partition B; and F is the outlet gas-pipe that leads from the washing-box. G is the overflow-pipe, through which the water may escape; and H is a blow-off pipe for removing the water when required. I is a door hinged to the lower end of the shelf, and is capable of being thrown against the end of the box by the gas-pressure.

The operation is as follows: The box is filled with water, so as to completely cover the inclined shelf, and the supply is maintained by a spring-tube, in the usual way. Gas is forced in through the pipe E, and follows the under surface of the shelf or partition B toward the outlet-pipe F. In its passage it is deflected by the ribs D C, and thrown downward a number of times before reaching the upper end of the partition. By this means the gas is brought into contact with a greater surface of water than in boxes of ordinary construction.

It is obvious that the edges of the ribs may be notched, serrated, or scalloped, or perforated, or left entirely plain; therefore I do not limit myself to any particular form of rib or brake.

The hinged part I of the shelf or partition B serves as an abutment against the upward pressure and rise of the gas at the end of box where it enters, while said part I falls by its own gravity when the pressure of gas is removed. Neither end of the partition being extended to the ends of box, the tar and impurities readily pass from the shelf or partition B, and collect on the bottom of the box, from whence they are readily removed when a blow-off takes place through the pipe H.

What I claim as new is—

A gas-washer whose shelf or partition B comes short of both ends of the box, and has the downwardly-inclined and hinged door I, which connects it with one end of the box, as and for the purpose specified.

WILLIAM MORELAND COSH.

Witnesses:

THOS. F. TAYLOR,

JOS. ALEXANDER.