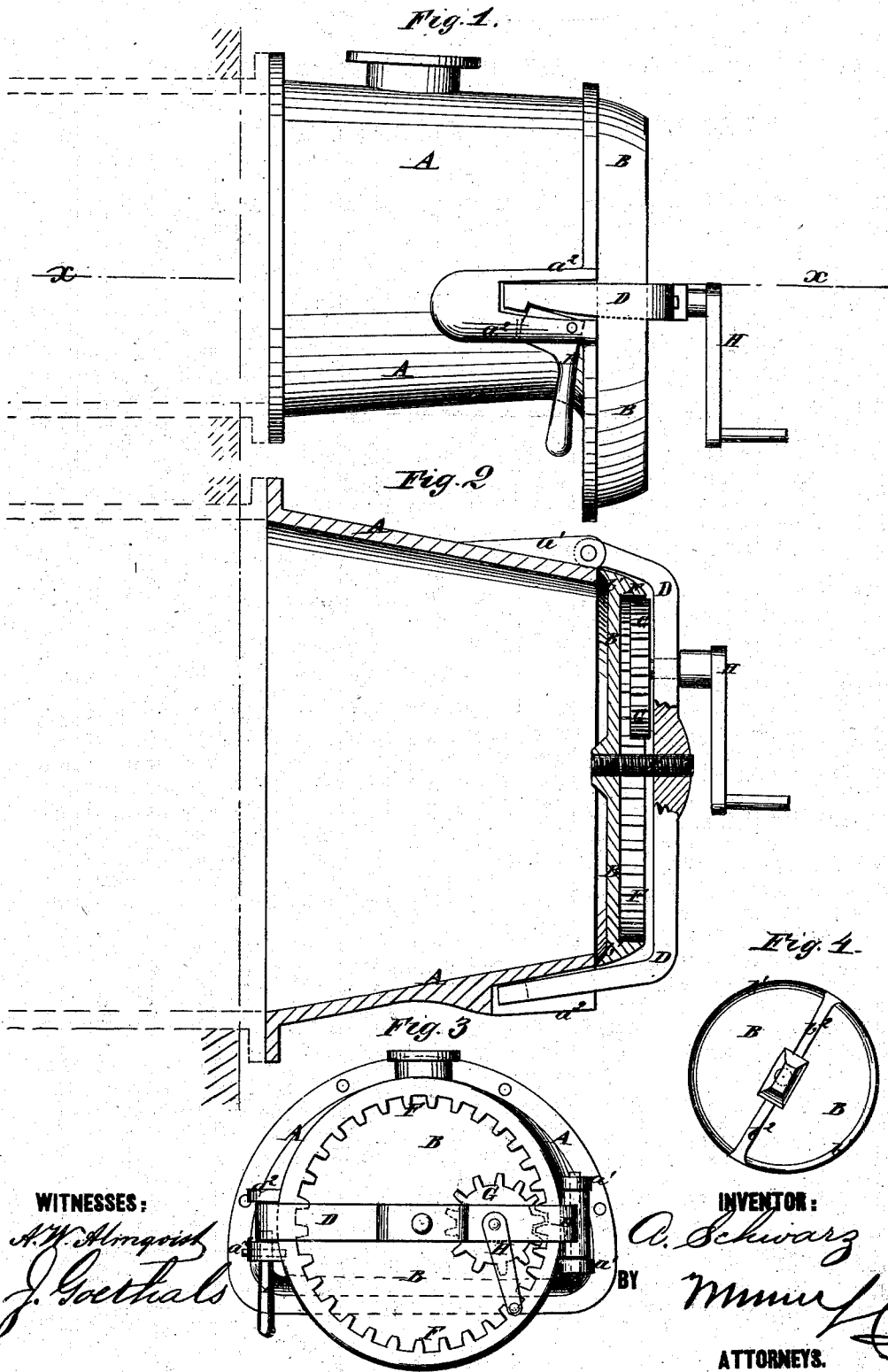


A. SCHWARZ.
GAS-RETORT COVER.

No. 186,276.

Patented Jan. 16, 1877.



WITNESSES:

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UNITED STATES PATENT OFFICE

AUGUST SCHWARZ, OF NEW YORK, N. Y.

IMPROVEMENT IN GAS-RETORT COVERS.

Specification forming part of Letters Patent No. **186,276**, dated January 16, 1877; application filed June 26, 1876.

To all whom it may concern:

Be it known that I, AUGUST SCHWARZ, in the city, county, and State of New York, have invented a new and useful Improvement in Gas-Retort Covers, of which the following is a specification:

Figure 1 is a side view of my improved cover. Fig. 2 is a horizontal section of the same, taken through the line *xx*, Fig. 1. Fig. 3 is a front view of the same. Fig. 4 is a detail view of the inner side of the lid.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved cover for gas-retorts which shall be so constructed that it may be easily opened and closed, may be closed perfectly tight, and will keep the lid-seat free from tar, &c.

The invention consists in the combination of the screw, the gear-wheels, and the crank with the lid and the locking-bar of a gas-retort cover; also, in a retort cover or lid having a sharp rib around its edge, and central radial ribs or scrapers, so that when the cover is rotated it will remove the tar adhering to the face of the mouth-piece.

A represents the mouth-piece of a gas-retort, which is made with a flange around its inner edge, to receive the bolts by which it is secured to the outer end of the retort, and with a collar upon its top to receive the stand-pipe. B is the lid, to the center of which is attached a screw, C, which enters a screw-hole in the center of the lock-bar D. The screw C, being firmly secured to the lid and turning in the screw-hole of the locking-bar, will cause said lid to be moved toward or from the mouth-piece, according to the direction in which the lid is turned. The bar D crosses the middle part of the lid B, and its ends are bent inward to overlap the sides of the mouth-piece A and enter recesses in lugs *a*¹ *a*² formed upon the sides of the said mouth-piece. One end of the bar D is hinged to the lug *a*¹ by a pin or bolt, and its other end has a notch in its lower edge

to receive the corner of the bent latch E, the outer end of which is made heavy, to hold its engaging end against the bar D. Around the inner side of the edge of the lid B is formed a sharp rib, *b*¹, which, when the said lid is closed, cuts its way through any tar or other substance that may be adhering to the face of the mouth-piece A. Upon the inner side of the lid B are formed radial ribs or scrapers *b*², which, as the said lid is rotated, scrape off any tar or other substance that may be adhering to the face of the mouth-piece A, and which, if not removed, would prevent the lid from shutting closely. Around the edge of the outer side of the lid B is formed an internally-toothed gear-wheel, F, into the teeth of which mesh the teeth of the small gear-wheel G attached to the crank H. The crank H works in a hole in the lock-bar D. With this construction, when the bar D is closed and latched, the crank H is turned, which turns the lid B and forces it inward against the face of the mouth-piece A, the rib *b*¹ cutting through and the ribs *b*² scraping off any tar or other substance that may be adhering to the mouth of the said base, so that the lid B may be closed perfectly tight. In opening the cover the crank H is turned, which loosens the lid B and moves it outward a little from its seat, so that it may be easily opened.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

1. The combination of the screw C, the gear-wheels F G, and the crank H with the lid B and locking-bar D of a gas-retort cover, substantially as herein shown and described.

2. The lid B, having a circumferential rib, *b*¹, and the radial ribs or scrapers *b*², as and for the purpose set forth.

AUGUST SCHWARZ.

Witnesses:

JAMES T. GRAHAM,
T. B. MOSHER.