D. DAVISON.
Gas-Retort.

No. 204,544. Patented June 4, 1878.

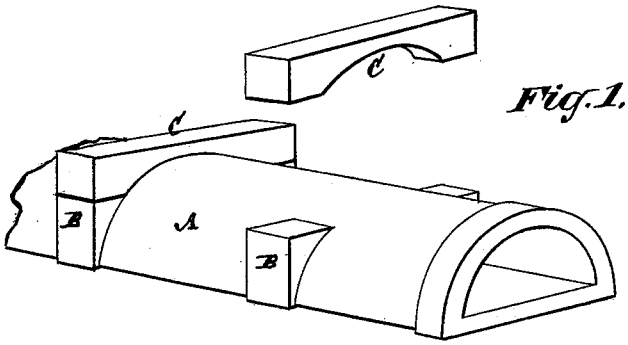
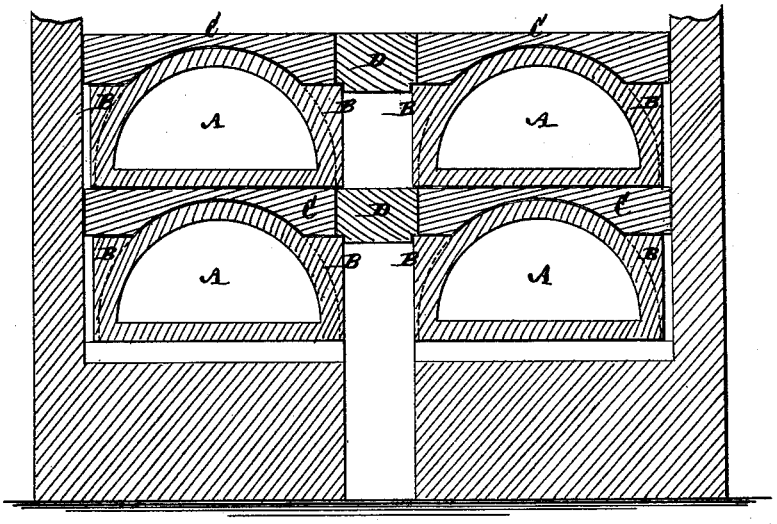


Fig. 1.

Fig. 2.



Witnesses.
John Becker
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Inventor
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UNITED STATES PATENT OFFICE.

DARIUS DAVISON, OF NEW YORK, N. Y.

IMPROVEMENT IN GAS-RETORTS.

Specification forming part of Letters Patent No. **204,544**, dated June 4, 1878; application filed October 12, 1877.

To all whom it may concern:

Be it known that I, DARIUS DAVISON, of the city and State of New York, have invented a new and useful Improvement in Gas-Retorts, of which the following is a description, reference being had to the accompanying drawing, forming part of this specification.

This invention more particularly relates to the construction of retorts to be arranged in benches for the manufacture of coal-gas, and has special reference to the means employed for supporting the superincumbent retorts.

The invention consists in a combination of outside projections on the sides of the retort and arched saddle-tiles straddling the retort and resting on said side projections, whereby said tiles, while spanning the retort to which they are applied, and being prevented by the retort from shifting laterally, relieve the arch of said retort, in a great degree, of the weight of an upper retort, and the projections on the side of the retort, while strengthening its arch, are not made to add materially to the weight of the retort, by reason of their terminating upward some distance short of the top of the retort. Such construction and combination of parts consequently differ in certain respects from the straight saddle-tiles and side projections or transverse ribs extending up to the level of the top of the retort, shown and described in Letters Patent No. 148,187, issued to me March 3, 1874.

Figure 1 represents a perspective view of a retort and saddle-tile detached, constructed in accordance with my invention; and Fig. 2, a vertical transverse section of a bench of retorts with the invention applied.

A A are the retorts, which may be of any suitable shape. B B are the projections on the outside of each lower retort. These projections stop short of the top of the retort, yet strengthen the arch of the latter to the extent of their height; but, stopping short of the top of the retort, they do not add the same amount of weight to the retort as if extended up to a level with the top of the retort, yet they form supports at the sides of the retort for the saddle-tiles C.

The saddle-tiles C, while arched to straddle the retort, and prevented by the latter from shifting laterally, rest upon the side projections B B, and relieve the arch of the retort in a great degree of the pressure consequent upon the superincumbent weight of an upper retort.

D D are dividing-blocks between the saddle-tiles of retorts, lying parallel with each other horizontally. These blocks also rest by means of shoulders upon the side projections B B of the retorts, and the saddle-tiles are supported laterally by said blocks and the sides of the oven.

I claim—

The combination of the exterior projections B B on the sides of the retort, stopping short of the top of the retort, and the arched saddle-tiles C straddling the retort and resting upon said side projections, and supported laterally by the sides of the oven and intervening blocks, substantially as specified.

DARIUS DAVISON.

Witnesses:

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