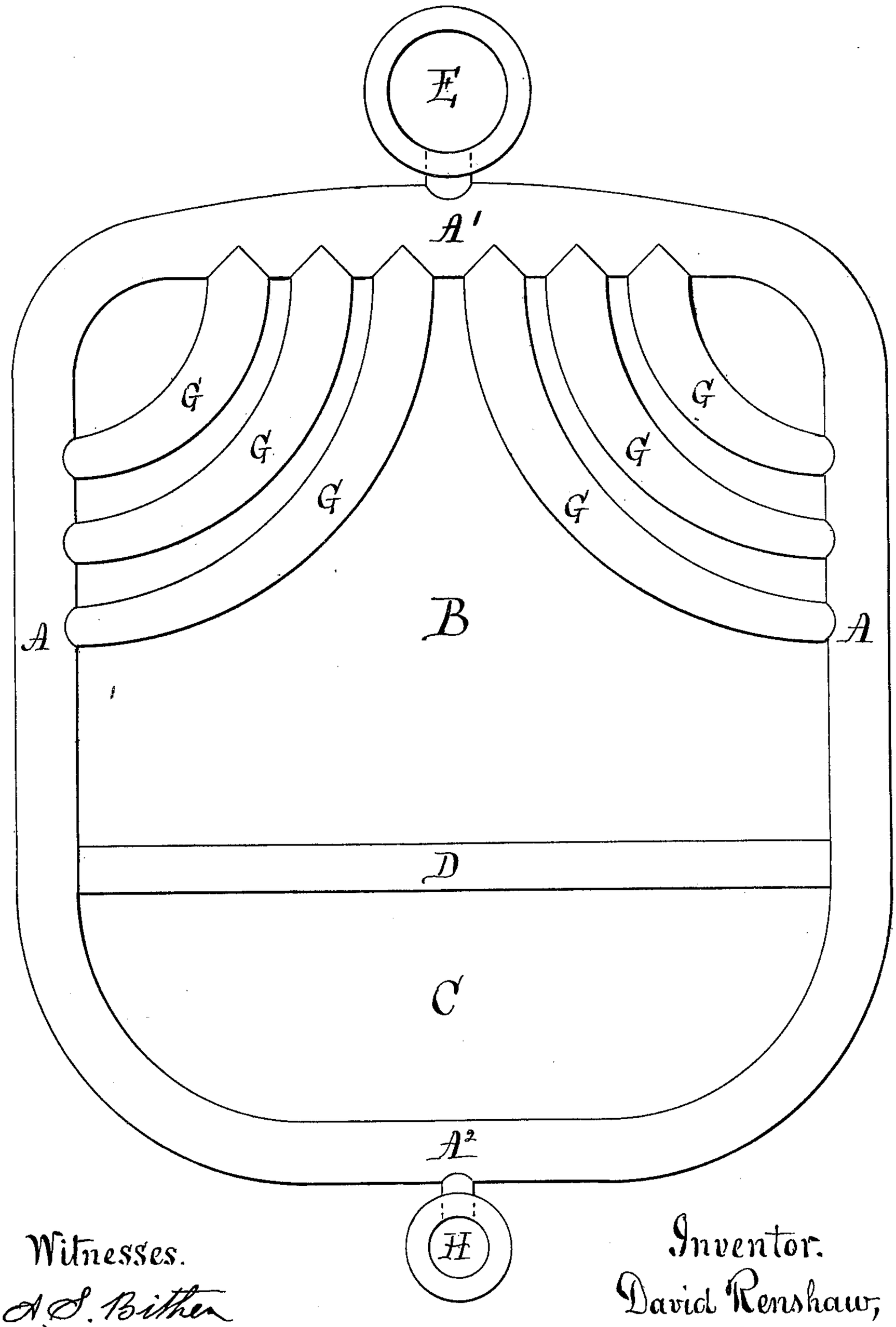
D. RENSHAW.

Sectional Steam Generator.

No. 231,194. Patented Aug. 17, 1880.



Witnesses.

A. S. Bithen

L. A. Nichols

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UNITED STATES PATENT OFFICE.

DAVID RENSHAW, OF COHASSET, ASSIGNOR TO BISBEE, ENDICOTT & CO., OF CHELSEA, MASSACHUSETTS.

SECTIONAL STEAM-GENERATOR.

SPECIFICATION forming part of Letters Patent No. 231,194, dated August 17, 1880.

Application filed November 28, 1879.

To all whom it may concern:

Be it known that I, DAVID RENSHAW, of Cohasset, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Sectional Steam-Generators, which improvements are fully set forth in the following specification and accompanying drawing.

My invention consists in an improved form of such sectional steam-generators as extend around and inclose the fire-box and ash-pit, and it is an improvement upon the boiler patented to George B. N. Tower, January 7, 1879, No. 211,118, in this respect, viz., that it has vertical side pipes and horizontal upper pipes, the vertical and horizontal pipes being connected by curved frusto-conical pipes, as shown in said patent; but instead of the sections occupying only one side of the fire-chamber they are placed on each side of said chamber, the upper water-bodies being connected and forming one continuous water-body, from which the steam is disengaged, while the lower ends of such sections are extended and united, thus making complete sections inclosing the fire-box and ash-pit, and surrounding them with a water-body, the advantages of which are well known.

In the drawing, the vertical pipes on the outside of the sections are marked A, the upper horizontal pipes, A′, and the lower horizontal pipes, A^2. E is a steam-drum, and H the feed and blow-off pipe. B represents the fire-chamber, C the ash-pit, and D the grate-bars.

The pipes A, A′, and A^2 are connected by curved corners, as shown, and are of a uniform width throughout, in order that they may come in contact with one another and make a wall to the boiler which will necessitate very little brick-work to complete. The sides of the pipes A, the whole surfaces of the frusto-conical pipes G, and the bottom of the pipe A′ are exposed to the direct action of the fire in a large fire-chamber, which must produce excellent results in the evaporation of water and consequent production of steam.

What I claim as my invention is—

In a sectional boiler, the combination of the vertical side pipes, A, horizontal upper pipes, A′, curved frusto-conical pipes G, connecting pipes A and A′, and lower horizontal pipes, A^2, said pipes A, A′ and A^2 inclosing a fire-chamber and ash-pit, all as described, and for the purpose specified.

DAVID RENSHAW.

Witnesses:

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