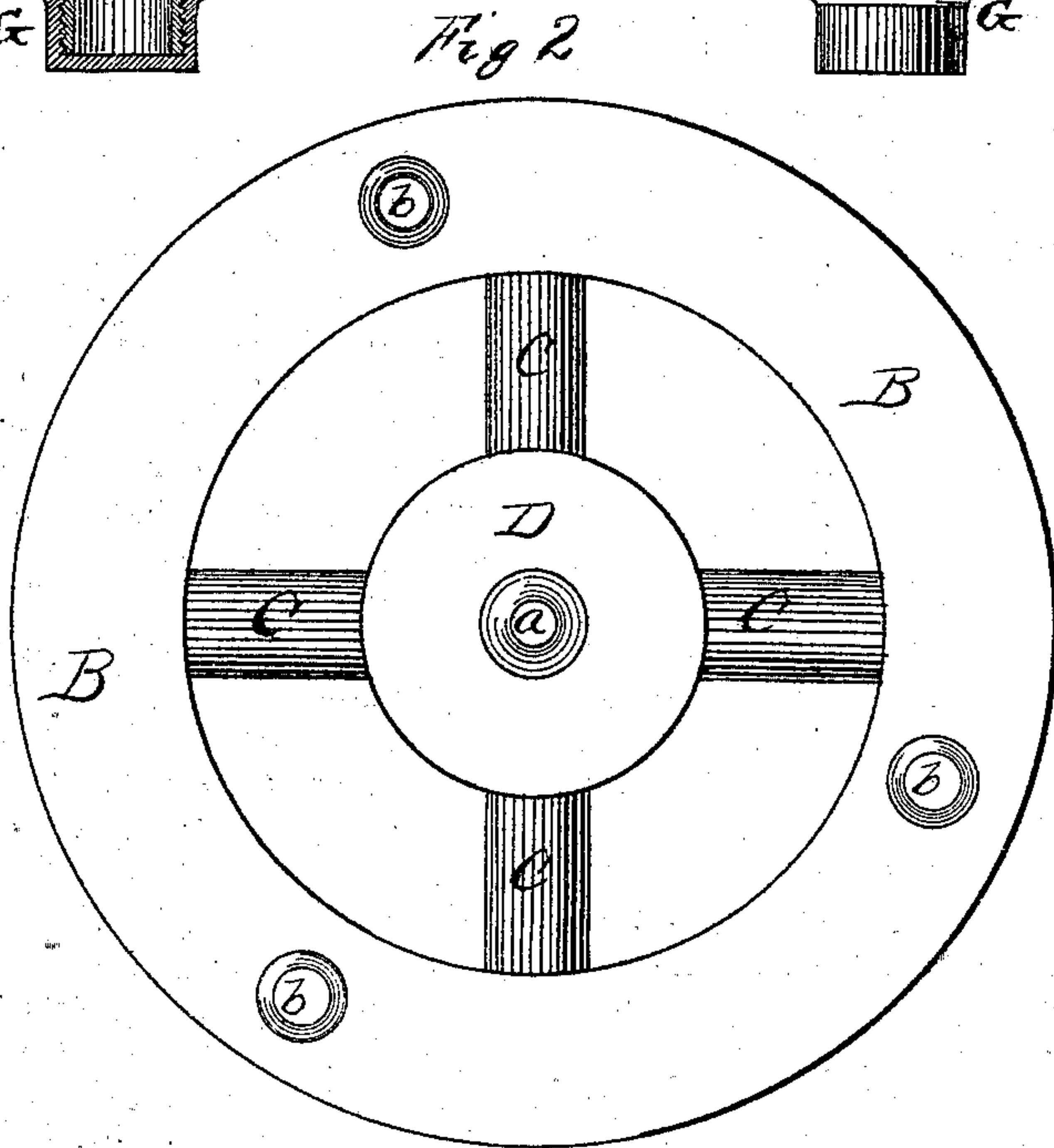
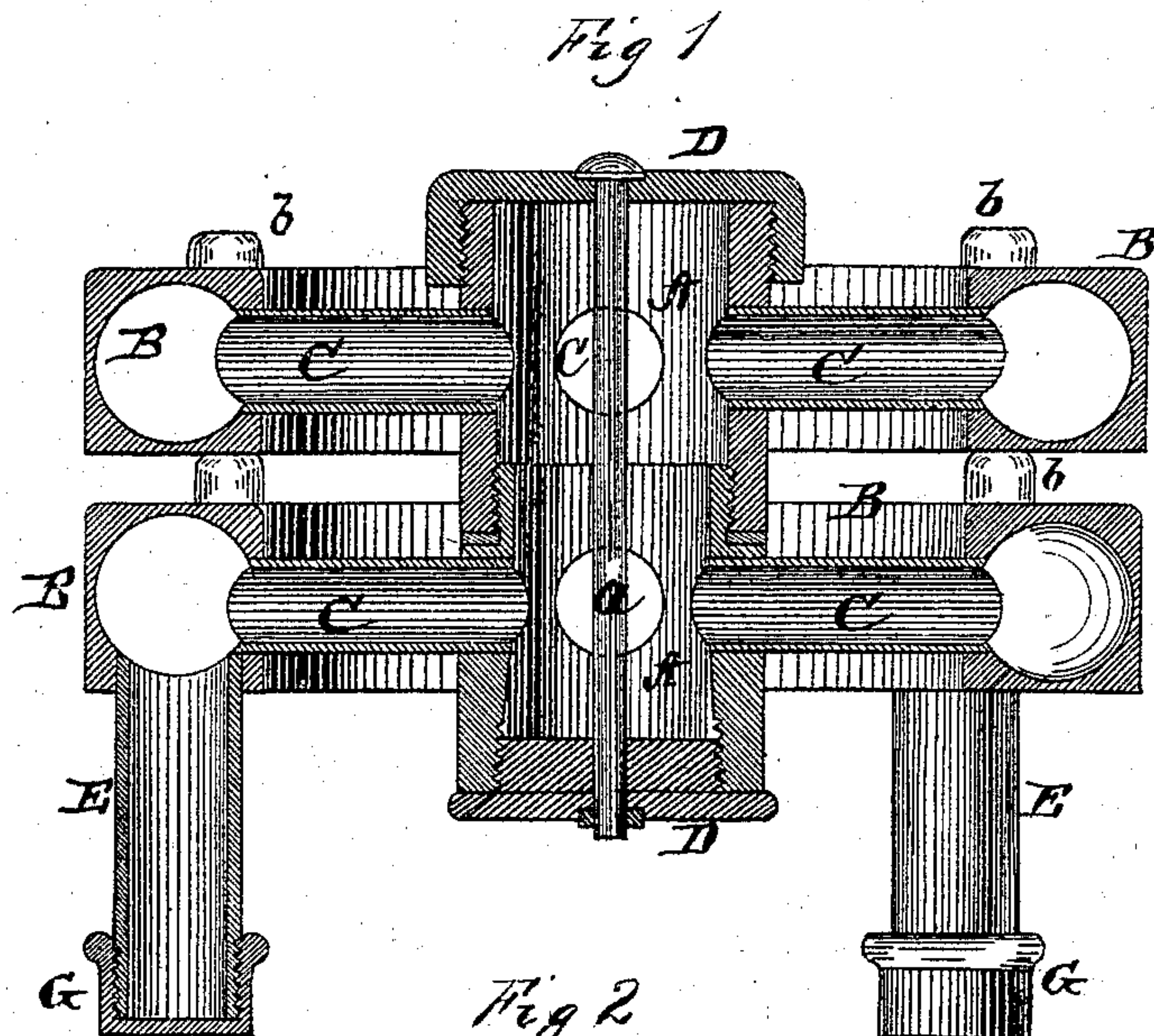


J. B. SWEETLAND.

Sectional Steam-Generators.

No. 135,862.

Patented Feb. 11, 1873.



Witnesses:  
*Frank A. Curran.*  
*A. L. Ewert.*

Inventor.  
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*Per Alexander Mason*  
Attorneys.



# UNITED STATES PATENT OFFICE.

JEROME B. SWEETLAND, OF PONTIAC, MICHIGAN.

## IMPROVEMENT IN SECTIONAL STEAM-GENERATORS.

Specification forming part of Letters Patent No. 135,862, dated February 11, 1873.

*To all whom it may concern:*

Be it known that I, JEROME B. SWEETLAND, of the city of Pontiac, in the county of Oakland and in the State of Michigan, have invented certain new and useful Improvements in Steam-Generators; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a steam-generator or steam-boiler, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which is a longitudinal vertical section of my steam-generator.

Figure 1 represents a cross-section, and Fig. 2 represents a plan view.

My generator or boiler is cast in sections, each section composed of a hollow center or hub, A, and a hollow rim, B, connected together by hollow arms or spokes C C radiating from the center or hub A, thus affording free circulation to both steam and water from one part of the section to any other part of the same. The center or hub A is open at the top and bottom, and two or more of said sections are combined together by cutting a thread on the inside of one end, and on the outside of the other end of the hub, and screwing one section into the other, either with or without packing; or a thread may be cut on both ends of a short pipe and one section of the boiler screwed onto each end of the pipe, in either case making one continuous pipe or hollow center the whole length of the boiler. The opening at each end of the hollow center, which thus extends from top to bottom of the boiler, is closed by means of a cap, D, which may either be screwed in or onto the end of the hollow center, or put together with packing, and the whole secured firmly by means

of a bolt, *a*, passing through the entire length of the boiler and screwed down, thus taking all strain from the threads where the connections on the boiler are made. The bottom section of the boiler is provided with three or more hollow standards or legs, E E, with caps G G on their lower ends. These standards may either be cast on or screwed in the section, and serve as supports to hold up the boiler any desired height to admit of a fire-box below, and also act as receptacles for all sediment that may accumulate in the boiler. The caps G G at the lower ends may be taken off at will for removing the sediment. On the upper side of each section are buttons or studs *b b* for the section immediately above to rest on when screwed down, so that it will sit firm on the same.

The particular shape or form of the sections of my boiler is immaterial; they may be square, round, or other desired shape. Likewise, the rims B B and spokes or arms C C may be either round, or square, or other form.

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

1. In combination with the bottom section of a sectional steam-generator, the hollow standards or legs E E, with screw-caps G G on their lower ends, substantially as and for the purposes herein set forth.

2. The buttons or studs *b b* formed on or attached to the upper side of each section of a sectional steam-generator, substantially as and for the purposes herein set forth.

3. The within-described steam-generator, consisting of one or more central hollow hubs, A, radial arms C, hollow rim B, studs *b b*, and hollow legs E, provided with screw-caps G, all substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of July, 1872.

JEROME B. SWEETLAND.

Witnesses:

ADOLPHUS W. BURTT,  
HARRY P. MYRICK.