

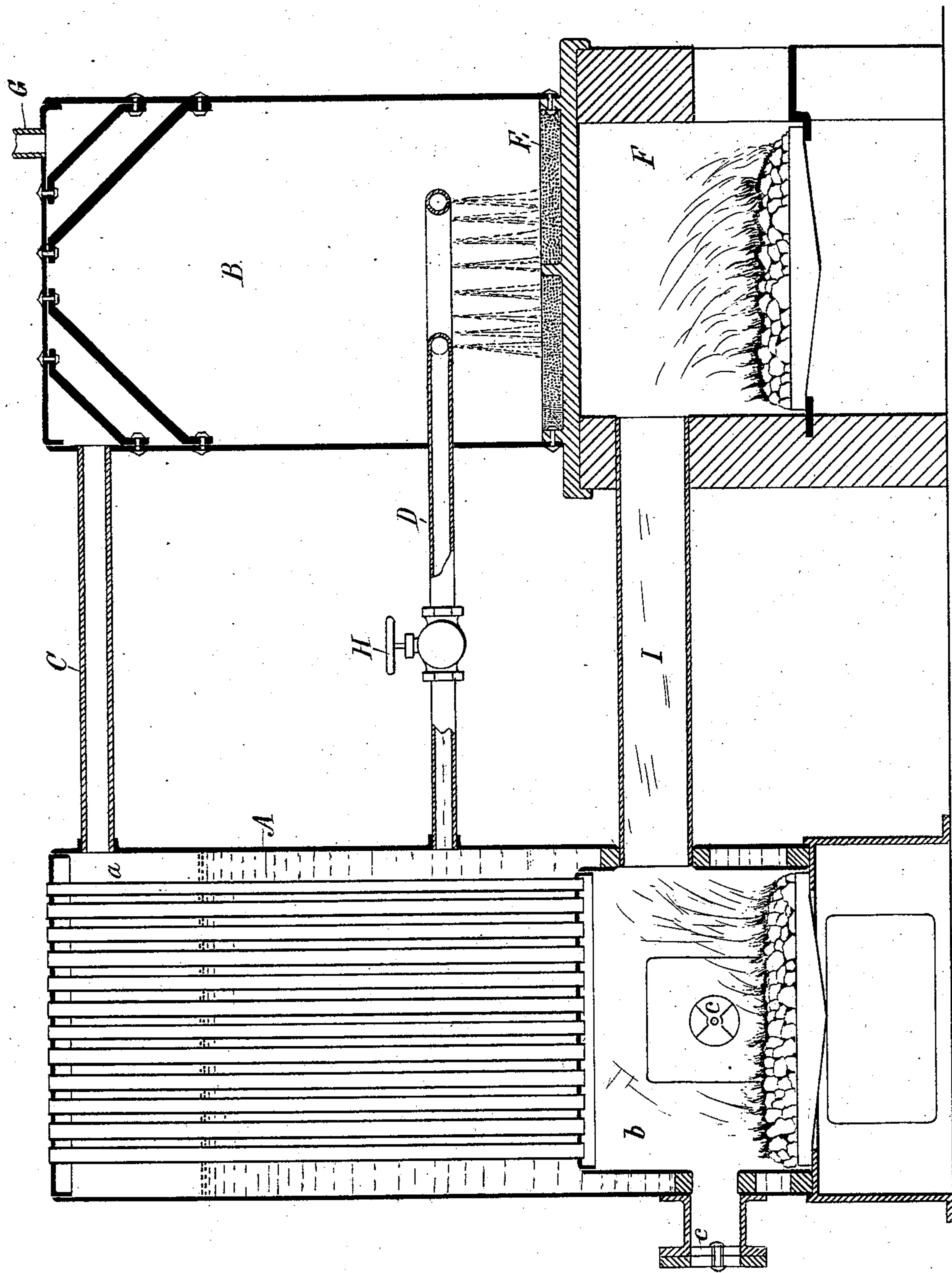
(No Model.)

H. W. ELLICOTT.

STEAM GENERATOR.

No. 289,818.

Patented Dec. 11, 1883.



- WITNESSES -

*Paul Fisher*  
*W. T. Cole.*

- INVENTOR -

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# UNITED STATES PATENT OFFICE.

H. WILLIAM ELLICOTT, OF BALTIMORE, MARYLAND.

## STEAM-GENERATOR.

SPECIFICATION forming part of Letters Patent No. 289,818, dated December 11, 1883.

Application filed September 3, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, H. WILLIAM ELLICOTT, of the city of Baltimore and State of Maryland, have invented certain Improvements in Steam-

5 Generators, of which the following is a specification.

The drawing forming a part hereof is a vertical section of the improved steam-generator.

10 In the said drawing, A is a steam-boiler of any approved construction, the steam chamber or space of which is connected to the upper end of a vessel, B, by a pipe, C. The water-space of the boiler is united with the said  
15 vessel by a pipe, D, and the portion of the said pipe which is inclosed in the vessel B is formed into a ring and perforated, as shown in the drawing, to admit of the ejection of  
20 minutestreams of water to a plate, E, forming the lower head of the said vessel. I do not, however, limit myself to this manner of introducing small streams of water to the vessel B, as various other means can be employed to  
25 effect a similar result. The plate E, which is strongly ribbed, is covered with fire-brick or sand, and situated directly over a furnace, F, from which it is heated. As water falls to the heated plate E, it is immediately converted  
30 into steam, which fills the said vessel and is carried through the pipe G to the engine, which is not shown in the drawing. The flow of the water through the pipe D is controlled by means of the valve H.

35 Parts of the invention not here alluded to will be described and their uses set forth in the description of the operation of the appa-

ratus which follows: The boiler A being supplied with water, and fire started in the furnace F, the valve H is opened and water allowed to drop or fall in small streams on the  
40 upper side of the heated plate E. The steam thus generated fills the vessel B and has access through the pipe C to the space *a* above the water in the boiler, and an equilibrium of pressure in the boiler A and vessel B is main-  
45 tained. The gases from the furnace F pass through the flue I to the combustion-chamber *b* of the boiler, and there commingle with those generated therein.

It is not expected to produce complete com-  
50 bustion in the furnace F; but thorough consumption of the products of imperfect combustion of the fuel in the furnace is effected in the combustion-chamber *b* by the introduction of air or other gases through openings *c*,  
55 which may be adjusted in size.

I claim as my invention—

In combination with a steam-boiler, an exterior furnace, a flue to connect the said furnace to that of the boiler, a steam-generating  
60 vessel situated over the first-named furnace, a pipe to conduct water from the boiler to the said steam-generating vessel and discharge the same in drops or small streams to the lower head of the vessel, and a pipe to unite  
65 the steam room or space of the boiler with the steam-generating vessel, substantially as and for the purpose specified.

H. WILLIAM ELLICOTT.

Witnesses:

WM. T. HOWARD,  
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