

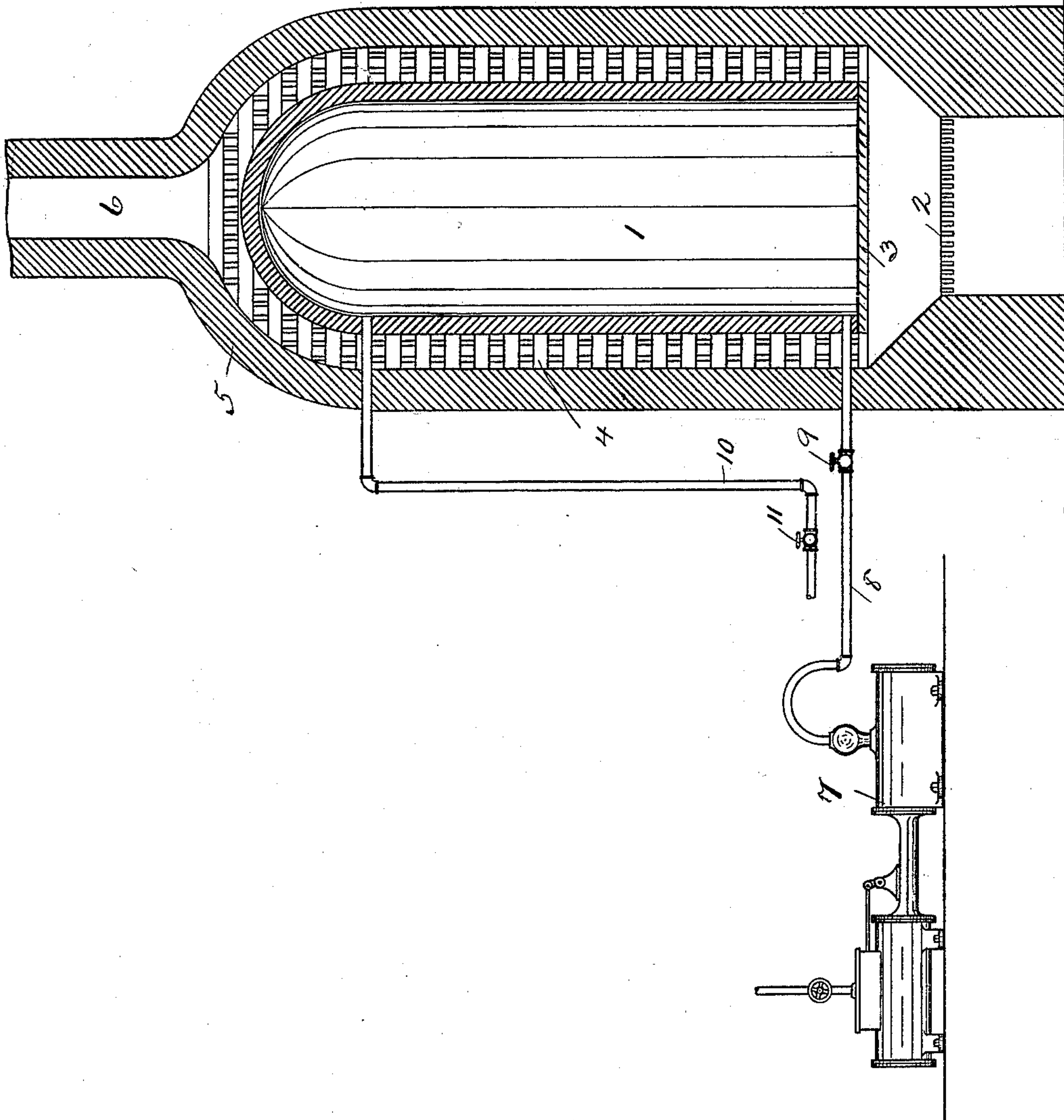
(No Model.)

J. L. HOWELL.

APPARATUS FOR GENERATING AND DISTRIBUTING HEAT.

No. 513,508.

Patented Jan. 30, 1894.



WITNESSES:

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JOHN L. HOWELL, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO AUGUST SAYLOR AND JACOB KEMMER.

APPARATUS FOR GENERATING AND DISTRIBUTING HEAT.

SPECIFICATION forming part of Letters Patent No. 513,508, dated January 30, 1894.

Application filed December 28, 1892. Serial No. 456,569. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. HOWELL, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Apparatus for Generating and Distributing Heat; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved apparatus for generating and distributing heat to points or places requiring the same, and consists in certain details of construction, and combination of parts as will be fully described hereinafter.

The accompanying drawing represents a side sectional elevation of my improved heat generator, showing a means connected thereto for pumping air into the same, together with the discharge pipe for conveying the heated air for use in buildings remote from the generator.

To put my invention into practice I construct a generator consisting of a fire chamber fitted with grate bars 2, arranged at the bottom of the generator. Above this fire chamber, and separated by a partition 3, is a dome shaped heating chamber 1, closed at the top and bottom, and surrounded by checker work 4, constructed of a refractory material, and arranged in a manner that the products of combustion pass upward and are discharged from the smoke stack 6. This checker work 4 is surrounded by a wall 5, through which an inlet pipe 8 is passed, and in communication with the heating chamber 1. This inlet pipe 8 leads from an air compressor or pump 7 of any desired construction.

Leading from the top of the air heating chamber 1 is a discharge pipe 10 which may be conducted to various buildings, &c., remote from the generator, and the said buildings heated. Several or any number of these generators may be connected to a large supply pipe and the heat generated by the same distributed over large sections of cities and towns.

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

A device of the class described comprising a hot air generator having a fire-chamber provided with grate-bars, a dome-shaped heating chamber having its wall mounted on a diaphragm or partition forming the top of the fire-chamber and separating the fire and heating chambers, checker work of refractory material in a chamber which exteriorly surrounds said heating chamber, said checker work being designed to cause the products of combustion to pass upwardly and to be discharged, a smoke-stack in communication with the checker-work chamber, and an outer wall surrounding the checker-work and provided with an inlet pipe which communicates with the heating chamber; an air-compressor or pump connected to said inlet-pipe; and a discharge pipe leading out of the top of the air heating chamber to various remote places of service, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I hereunto affix my signature this 5th day of November, A. D. 1892.

JOHN L. HOWELL. [L. S.]

In presence of—

JOHN S. KENNEDY,
D. C. REARDON.