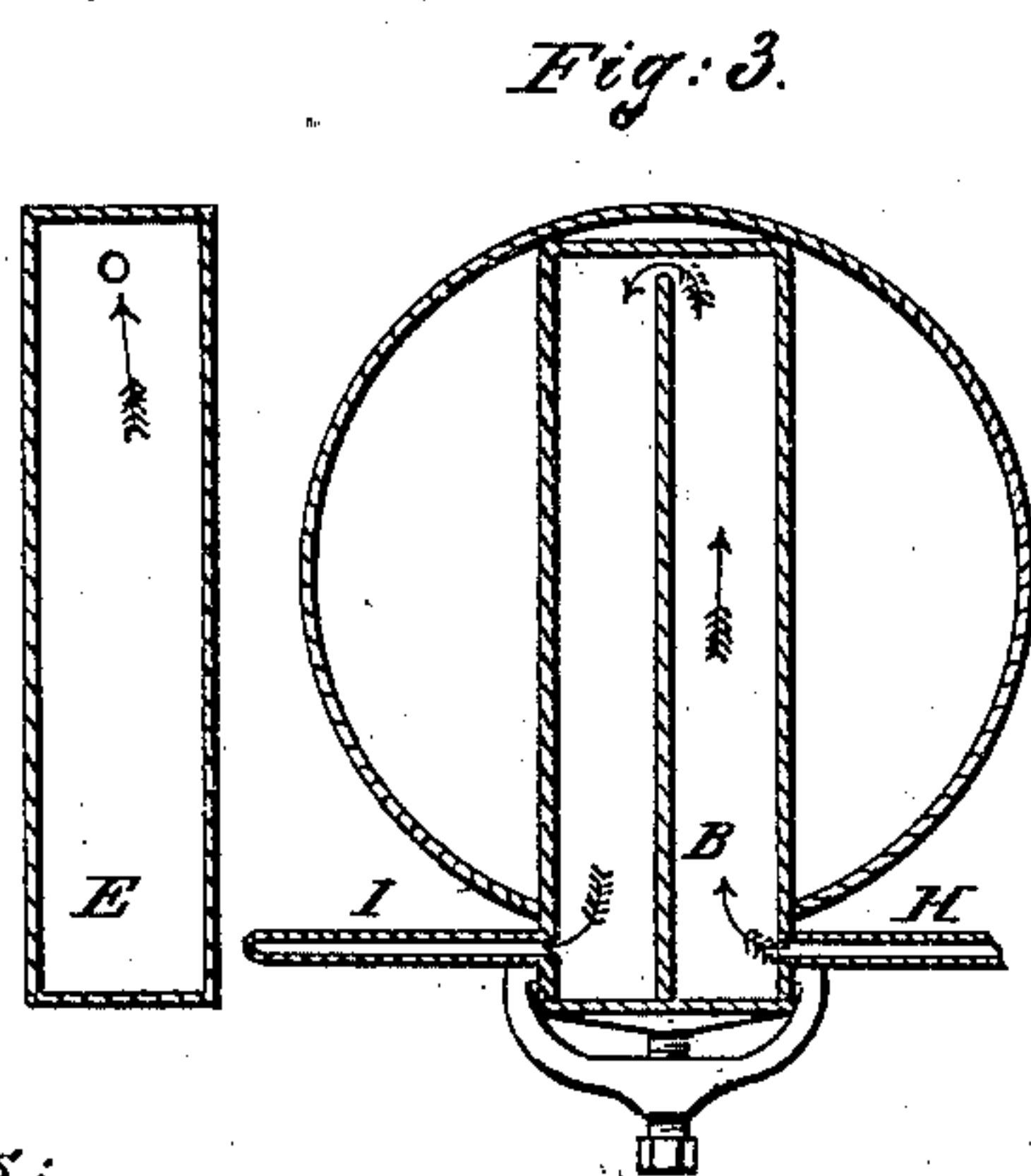
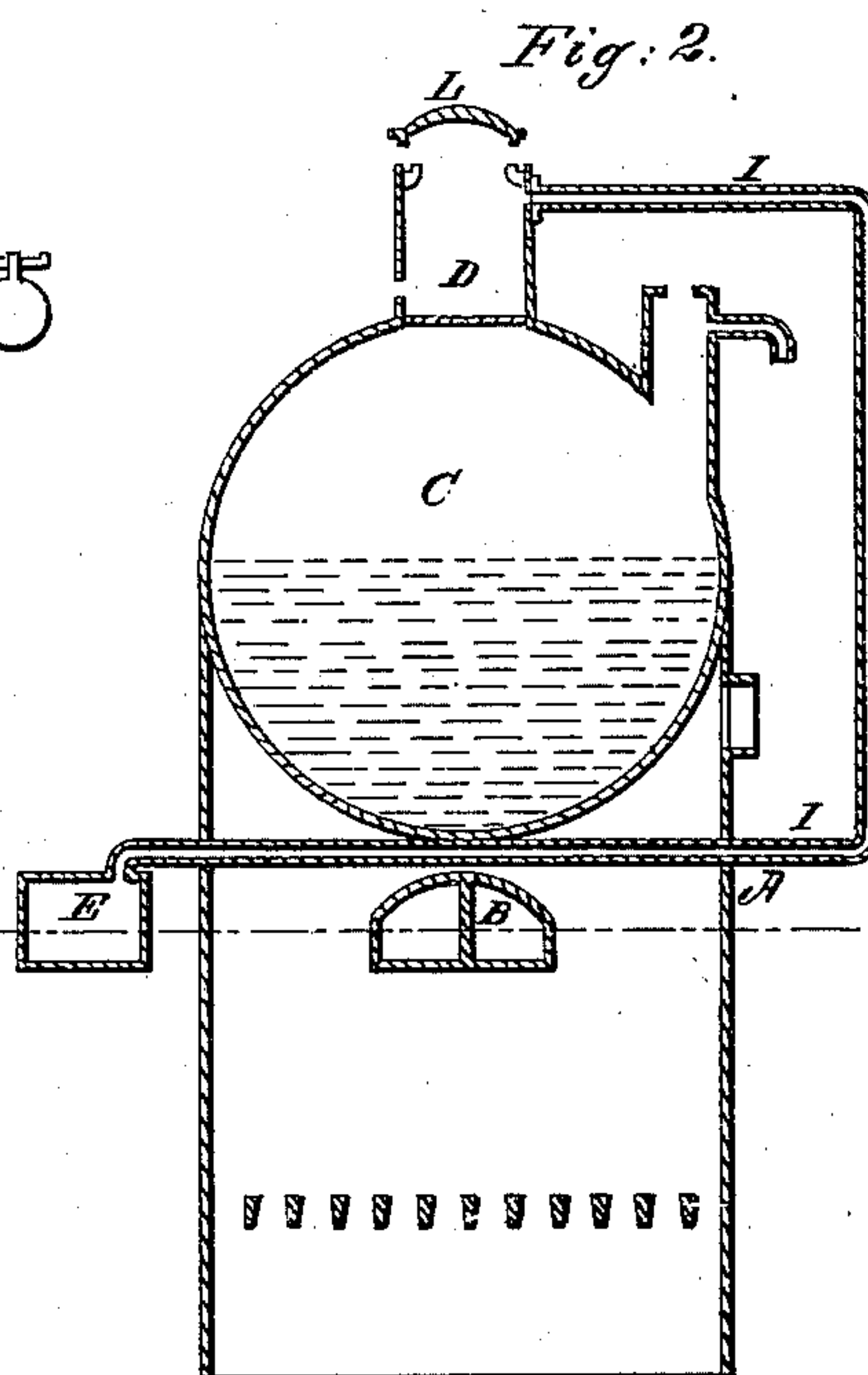
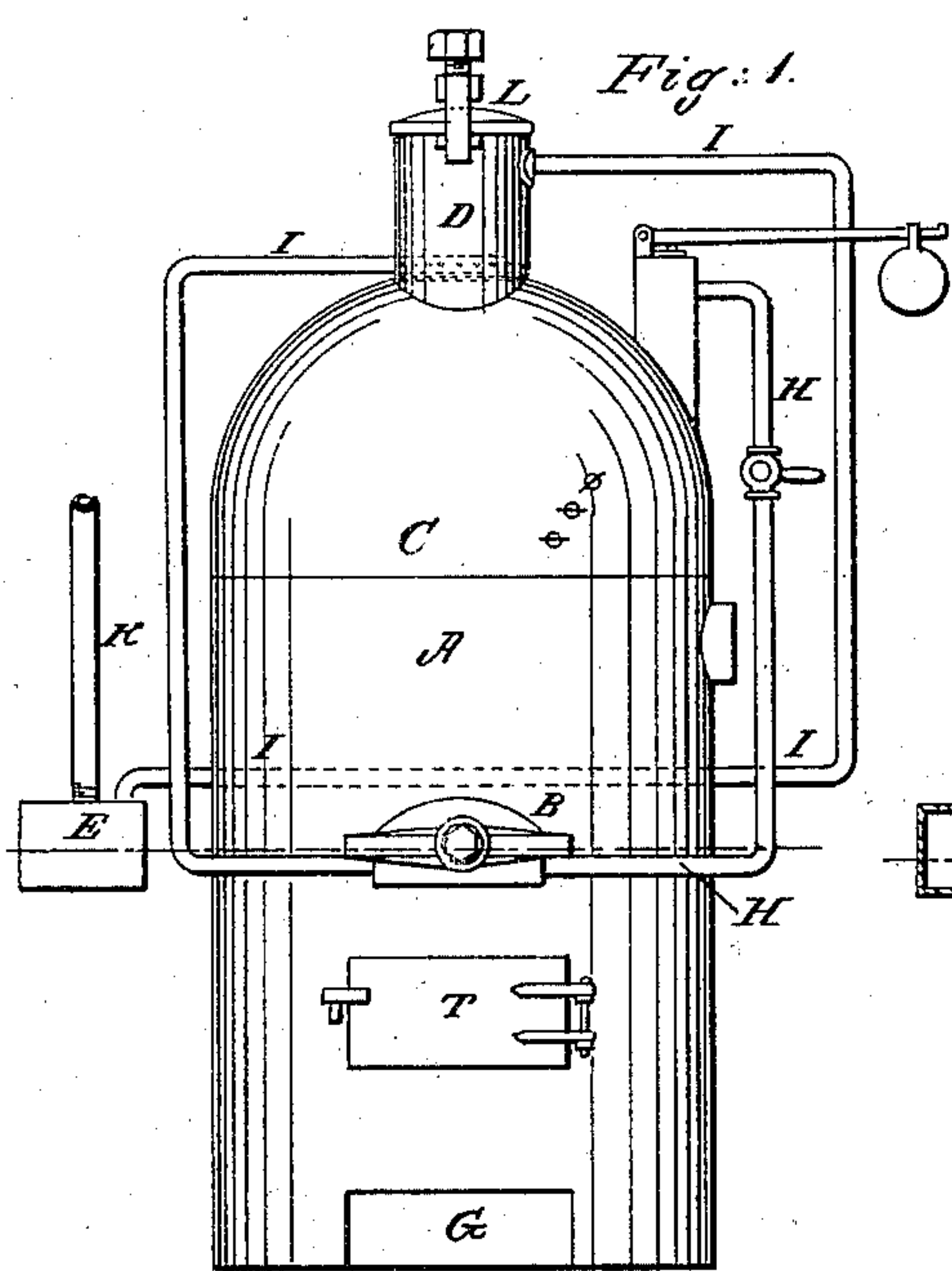


W. H. GWYNNE.
Making Oil and Water Gas.

No. 33,249.

Patented Sept. 10, 1861.



Witnesses:

Chas M. Disorway

Amos Porter

Inventor:

W. H. Gwynne

UNITED STATES PATENT OFFICE.

WILLIAM H. GWYNNE, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR THE MANUFACTURE OF WATER-GAS.

Specification forming part of Letters Patent No. **33,249**, dated September 10, 1861.

To all whom it may concern:

Be it known that I, WILLIAM H. GWYNNE, of the city, county, and State of New York, have invented certain new and useful Improvements in Apparatus for Making Illuminating Gas from Water and Hydrocarbons; and I do hereby declare that the same are described and represented in the following specification and accompanying drawings.

The nature of my invention and improvements consists in the construction and arrangement of devices hereinafter described.

To enable others skilled in the art to make and use my improvements, I will proceed to describe them, referring to the above-mentioned drawings, in which the same letters indicate like parts in each of the figures.

Figure 1 is a front elevation of a gas-apparatus with my improvements. Fig. 2 is a sectional elevation, and Fig. 3 is a horizontal section.

In the drawings, A is a stove, which may be made in the form shown or in such other form as will answer the purpose, and provided with a door F, ash-pit, or draft-opening G under the grate L. (Shown in Fig. 2.)

C is a boiler for generating steam, situated in or forming the top of the stove, and provided with gage-cocks and safety-valve, as shown in Fig. 1, and may be supplied with some device for supplying it with water. The pipe H conducts the steam from the boiler to the retort B, and it is provided with a stop-cock to graduate or stop the supply of steam when required. The retort B is provided with a partition which separates it into two chambers connected by a narrow opening at the rear end for the steam or gas to pass through, as shown in Fig. 3. On the opposite side of the retort from the pipe H the pipe I is inserted, which conducts the steam or gas to the carbonizer on the top of the boiler, so as to be kept hot when the boiler is in use.

This pipe I is so arranged as to deliver the steam or gas into the carbonizer and let it bubble up through the melted or hot tar, rosin, or other liquid hydrocarbon. The gas is conducted from the carbonizer by the pipe I I down and across the fire-space and reheated, and then passes into the cooler E, containing water, and from that by the pipe K to the gasometer or burners.

The improved apparatus being constructed as described, I supply the boiler with water, and charge that side of the retort where the steam enters with charcoal and the other side with chips of iron, and supply the carbonizer with tar, rosin, or other hydrocarbon, and the cooler with water, and make a fire on the grate. When the retort is heated to redness, I let the steam through the cock in the pipe H, and it passes through the charcoal, which is heated to redness, and then through the red-hot chips of iron and through the pipe I to the carbonizer, and from that through the pipe I I, in which it is reheated to the cooler E, from which it may be conducted to the gasometer or to burners.

I have now described and represented my improvements in apparatus for making illuminating gas from water and hydrocarbons, so as to enable any person skilled in the art to make and use them.

I will now state what I desire to secure by Letters Patent—

The combination and arrangement of the boiler C, retort B, carbonizer D, and reheating-pipe I I, the whole being connected and arranged so that the process of generating the steam and making illuminating-gas will be carried on or performed in the manner set forth.

W. H. GWYNNE.

Witnesses:

AMOS PORTER,
JOHN NEAL.