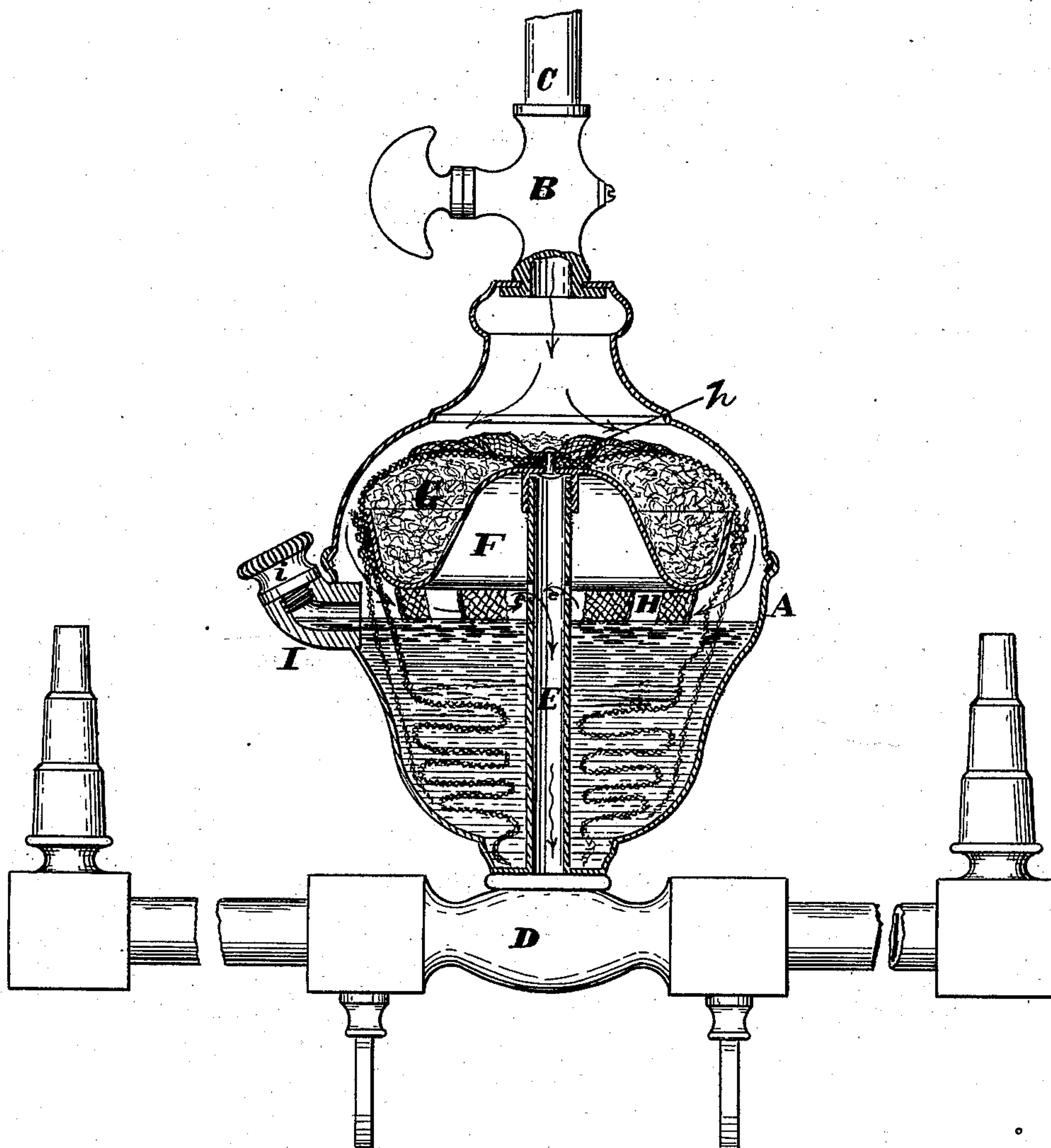


C. HOFF.
Carbureting-Attachment for Gas-Burners.
No. 203,456. Patented May 7, 1878.



Attest.
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Esq.

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UNITED STATES PATENT OFFICE.

CHARLES HOFF, OF CINCINNATI, OHIO.

IMPROVEMENT IN CARBURETING ATTACHMENTS FOR GAS-BURNERS.

Specification forming part of Letters Patent No. **203,456**, dated May 7, 1878; application filed March 21, 1878.

To all whom it may concern:

Be it known that I, CHARLES HOFF, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Carbureting Attachments for Gas-Burners, of which the following is a specification:

This is a device for charging ordinary illuminating-gas with the vapor of gasoline, by causing a very small stream of the gas to pass through wicks or sponge saturated with gasoline.

The accompanying drawing represents a section of a carbureter embodying my improvements.

A is a suitably-formed vessel for holding gasoline, and is securely attached to a cut-off cock, B, on the end of the service-pipe C. From the lower end of the vessel A any suitable gas-fixture, D, may be suspended. Opening into said fixture, and projecting up into the vessel A, is a hollow stem or tube, E, having perforations at *e* to admit the gas. This tube supports a vaporizer, consisting of an annular cup-shaped vessel, F, (which contains shavings, sponge, wool, or any similar porous material, G,) and of several wicks, H, attached by rivet *h* to the elevated center of the cup, and projecting over the edge of the cup down into the liquid in the vessel A.

The gasoline is introduced into the vessel A through the stoppered opening I, which is placed low enough to prevent the liquid from flowing through apertures *e* into the pipe E.

The amount of gas entering the carbureter is regulated by the cock B, which also serves to temporarily cut off the gas while the vessel is being filled.

In the use of this attachment the greater

part of the illumination is due to the gasoline, the office of the gas being chiefly, by its flow in contact with the saturated capillaries, to detach and carry forward the gasoline vapor.

By this arrangement of wicks and sponges a large amount of surface is exposed to the gas, which consequently becomes heavily impregnated with the vapor of gasoline, which forms a better, and at the same time cheaper, flame than the gas alone would do.

Whenever the vessel A becomes depleted of gasoline, it can be replenished at short notice by first closing the cock B, so as to stop for the moment the flow of gas, and then opening the stopper *i* and pouring in a new charge of gasoline.

I prefer, in addition to the wicks, to fill the lower chamber to level of charging-hole with fragments of wood-charcoal about the size of a navy bean.

I claim as new and of my invention—

In combination with a carbureting attachment for gas-burners, the pendent gasoline-holder A, communicating by stop-cock B with service-pipe C, the inclosed hollow stem of tube E communicating below with burner-arms D and above with said holder, and surmounted by the annular vaporizing-trough F, for the reception of sponge G and wicks H, or other suitable capillary devices.

In testimony of which invention I hereunto set my hand.

CHARLES HOFF.

Attest:

GEO. H. KNIGHT,
WALTER KNIGHT.