

No. 639,481.

Patented Dec. 19, 1899.

H. WOLPERT.
CARBURETER.

(Application filed Jan. 3, 1898.)

(No Model.)

Fig. 1.

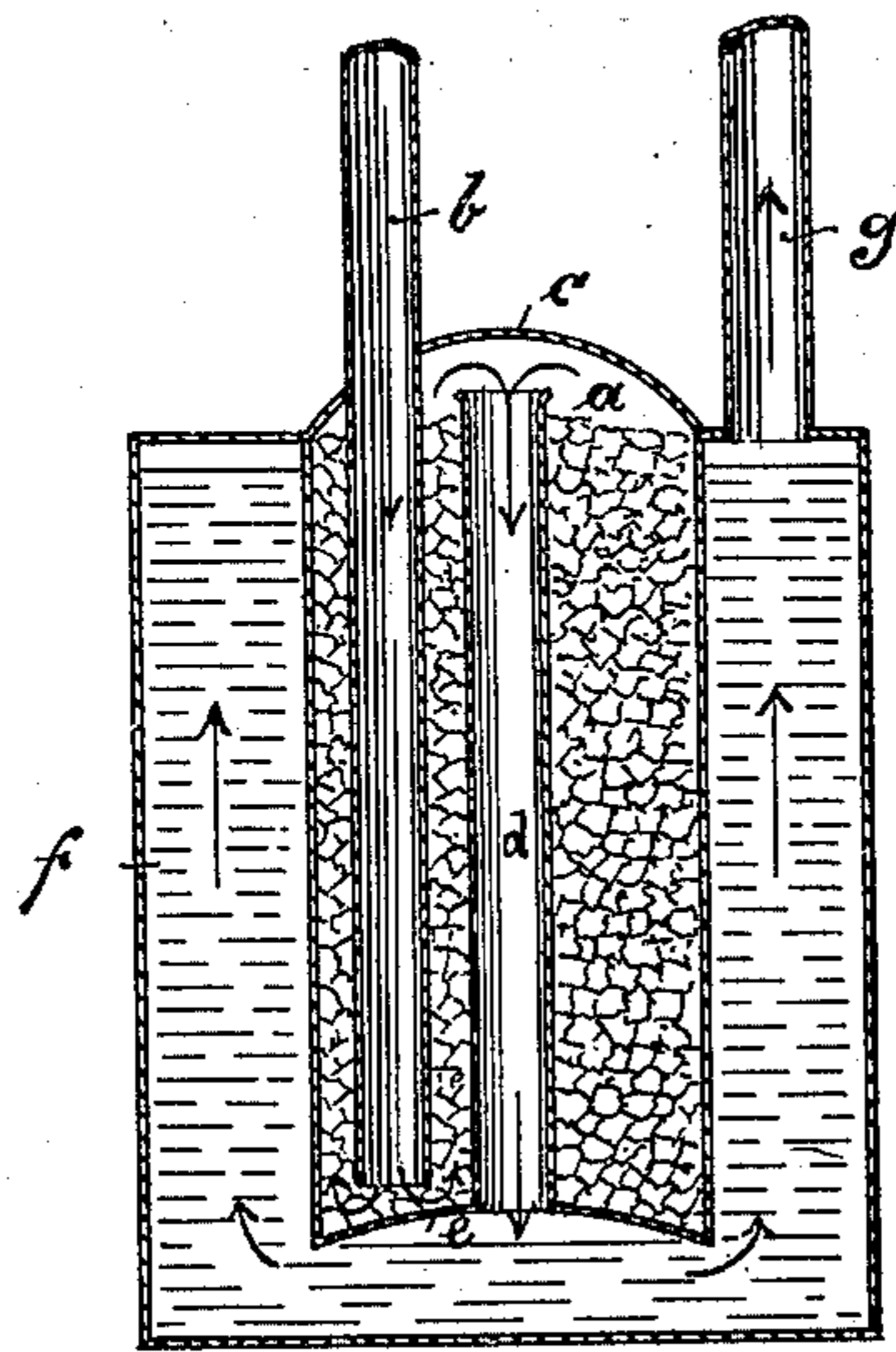
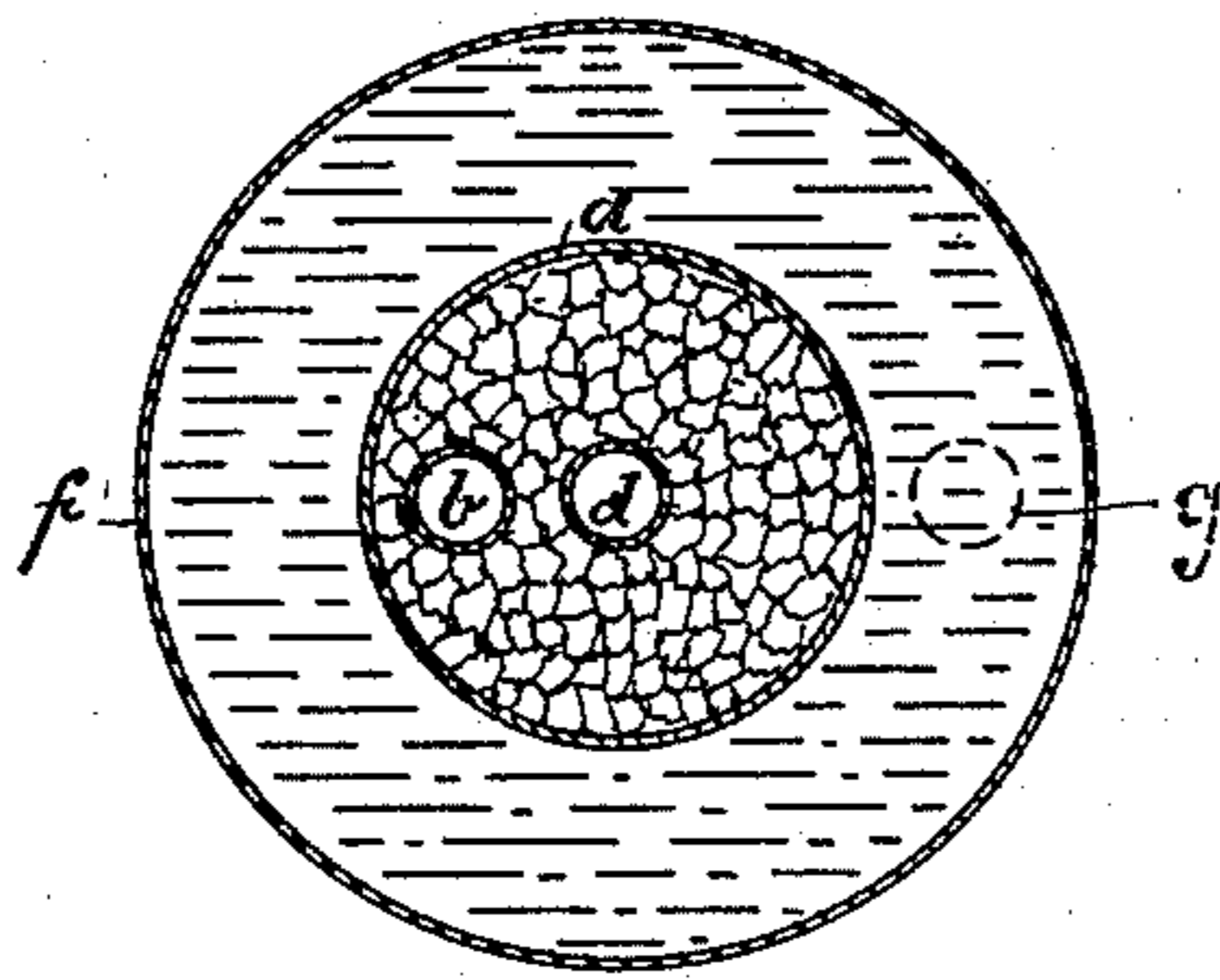


Fig. 2.



Witnesses:

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Inventor:

Heinrich Wolpert.

UNITED STATES PATENT OFFICE.

HEINRICH WOLPERT, OF CHARLOTTENBURG, GERMANY.

CARBURETER.

SPECIFICATION forming part of Letters Patent No. 639,481, dated December 19, 1899.

Application filed January 3, 1898. Serial No. 665,484. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH WOLPERT, a subject of the King of Bavaria, residing at 78 Göthestrasse, Charlottenburg, near Berlin, Germany, have invented an Apparatus for Carbureting Air, of which the following is a specification.

My invention relates to an improved apparatus for carbureting air, and more particularly to an apparatus in which the air is dried before being subjected to the carbureting process.

With this end in view my invention consists in so arranging the vessel containing the carbureting fluid that it surrounds the receptacle for the drying medium.

It is known that by passing air through a carbureting fluid—such, for instance, as naphtha, petroleum, bitumen, or the like—a certain cooling of the carbureting medium takes place, this cooling being caused by the evaporation of the carbureting medium. It is further known that by passing air through a drying medium—such, for instance, as chlorid of calcium—a certain heating of this medium takes place, which heating arises from the water, steam, and humidity contained in the air, being bound by the drying medium. The heated medium now causes a relative heating of the air afterward passing through the medium.

Now my invention consists in compensating the cooling of the carbureting medium by the heating of the drying medium and of the heated air passing through the carbureting fluid after having been heated during its passage through the drying medium, and with this view I arrange the vessel containing the carbureting fluid around the receptacle containing the drying medium.

In the accompanying drawings, Figure 1 is a vertical section of an apparatus arranged according to my invention. Fig. 2 is a cross-section.

α is a receptacle containing the drying medium—such, for instance, as chlorid of calcium. The air is introduced by the pipe b , which extends down near to the bottom of the receptacle. The air after having passed the chlorid of calcium accumulates beneath the cover c of the receptacle and then enters the

pipe d , which passes through the bottom e of the receptacle. The bottom e and the side walls of the latter are surrounded by the vessel f , containing the carbureting fluid. The air, which may be introduced by pressure through the pipe b , at last rises through the carbureting fluid and enters the pipe g , by which it may be guided directly to suitable burners or to a receptacle and afterward used for lighting purposes.

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

1. In a carbureting apparatus, the combination with a receptacle forming a drying-chamber for holding a chemical medium for drying air capable of imparting heat to the air, as it passes therethrough, an air-inlet pipe leading into the same, of another vessel surrounding said drying-chamber and forming a carbureting-chamber for holding a medium for carbureting air, a pipe connecting the two chambers, and an outlet-pipe leading from the carbureting-chamber for conveying the carbureted air therefrom, whereby the cooling effect of the carbureting medium is compensated by the heating effect of the drying medium, substantially as described.

2. In a carbureting apparatus, the combination with a receptacle forming a drying-chamber for holding a chemical medium for drying the air, an air-inlet pipe leading into said receptacle and terminating near the bottom thereof, a drying medium within and nearly filling the said receptacle, and forming an air-chamber at top of said vessel, another vessel surrounding said drying-chamber for holding a carbureting medium, a pipe connecting the air-receiving chamber of the drying-chamber with the carbureting-chamber, and an outlet-pipe leading from the carbureting-chamber for conveying the carbureted air therefrom, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HEINRICH WOLPERT.

Witnesses:

EMIL F. HOFFMANN,
FRANZ EBERT.