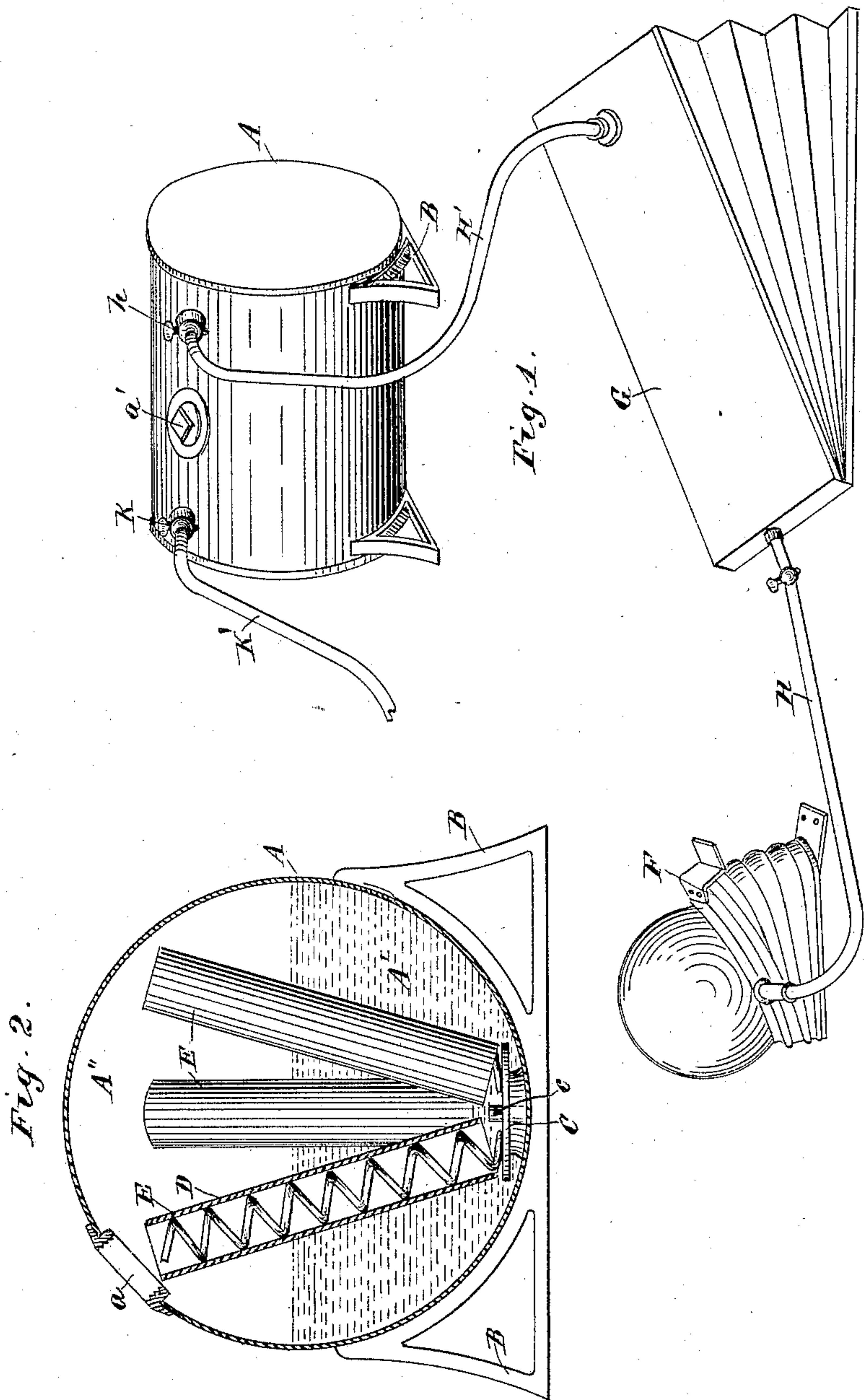


(No Model.)

H. L. CRUTTENDEN.  
CARBURETOR.

No. 473,498.

Patented Apr. 26, 1892.



Witnesses.  
A. H. Opsahl.  
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By his Attorney.  
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# UNITED STATES PATENT OFFICE.

HENRY LOUIS CRUTTENDEN, OF NORTHFIELD, MINNESOTA.

## CARBURETOR.

SPECIFICATION forming part of Letters Patent No. 473,498, dated April 26, 1892.

Application filed March 23, 1891. Serial No. 385,953. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY LOUIS CRUTTENDEN, a citizen of the United States, residing at Northfield, in the county of Rice and State of Minnesota, have invented certain new and useful Improvements in Carburetors; 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 appertains to make and use the same.

My invention has for its object to provide an improved carburetor for use by dentists and others in laboratory work.

To this end the invention consists in certain novel devices and combination of devices which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, like letters referring to like parts throughout, Figure 1 is a perspective view of the carburetor detached from the burner. Fig. 2 is a cross-section about on the center line of the oil and air reservoir.

A is the reservoir or receptacle for holding the oil and air. As shown, the receptacle is of cylindrical form and is conveniently supported by bed-brackets B.

A' represents the oil within the reservoir, and A'' the air-zone above the level of the oil. The oil employed is some light hydrocarbon oil, preferably gasoline.

C is a support for the vaporizers, mounted to rotate on the bottom of the reservoir, as by a pivot-stud *c*.

D is a wick-holder, consisting of a coiled wire secured at its lower end to the support C.

E is the wick, loosely sleeving over the holder D. Each of the holders D, with its wick E, constitutes a vaporizer, the lower part of which is submerged in the oil and the upper part of which projects into the air-zone above the oil. Three or more of these vaporizers are secured to the rotating support C at divergent angles to each other, so that any one of them may be brought into line with the hand-hole *a* in the reservoir for the substitution of new wicks whenever needed.

*a'* is a plug for closing the hand-hole.

F is an air-pump of the bellows variety.

G is an air reservoir or chamber of bellows form.

H is a pipe connecting the pump F to the

chamber G, and H' a similar pipe or tube connecting the chamber G with the air-zone of the reservoir through a valve-inlet *h*.

K is a valve-outlet from the air-zone of the reservoir, and K' the flexible tube or other pipe for conducting off the carbureted air to a burner or elsewhere to the point desired for use.

A carburetor with vaporizers constructed as shown and described is very efficient and is readily kept in working condition. It is of a form which readily adapts itself for use in connection with all kinds of blowpipes and other burners, and hence is of great convenience in laboratory work.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. The combination, with an oil and air reservoir or receptacle having an inlet and outlet and provided with a hand-hole and plug in the upper part of the same, of a support mounted to rotate near the bottom of the reservoir and one or more wick-holders provided with wicks secured to said support and projecting into the air-zone, substantially as described.

2. The combination, with the oil and air reservoir or receptacle having an inlet and an outlet and provided with a hand-hole and plug in the upper part of the same, of a support mounted to rotate near the bottom of the reservoir, and one or more wick-holders, each consisting of a coiled spring, secured to said support, and wicks supported by said holders and projecting into the air-zone, substantially as described.

3. The combination, with the oil and air reservoir having an inlet and outlet and provided with a hand-hole and plug in its upper part, of a support mounted to rotate near the bottom of the reservoir, a series of coiled-wire wick-holders secured to said support and projecting therefrom at divergent angles, and tubular wicks sleeving on the said holders, replaceable through said hand-hole, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY LOUIS CRUTTENDEN.

Witnesses:

CHARLES R. VANDERBELT,  
A. W. NORTON.