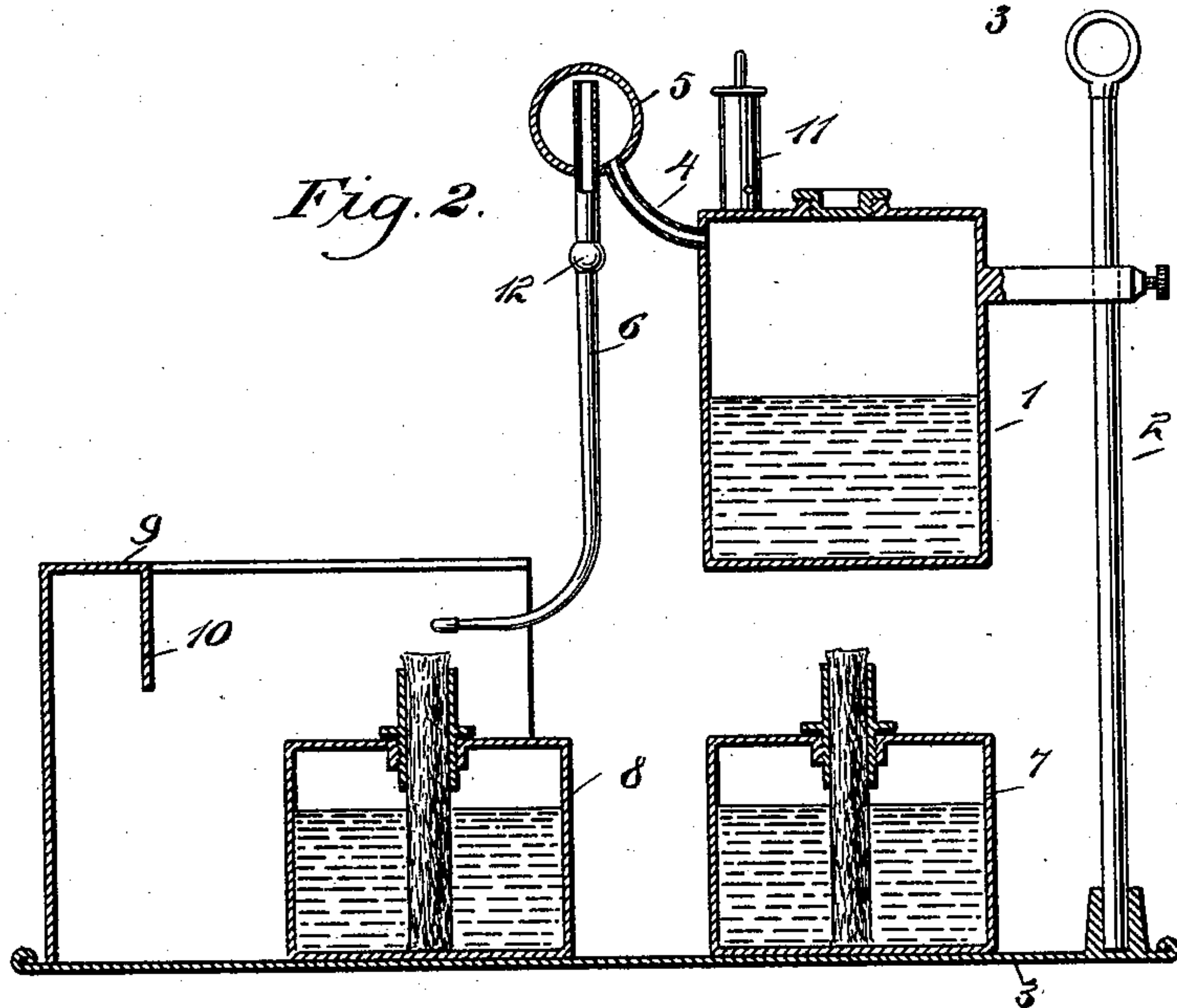
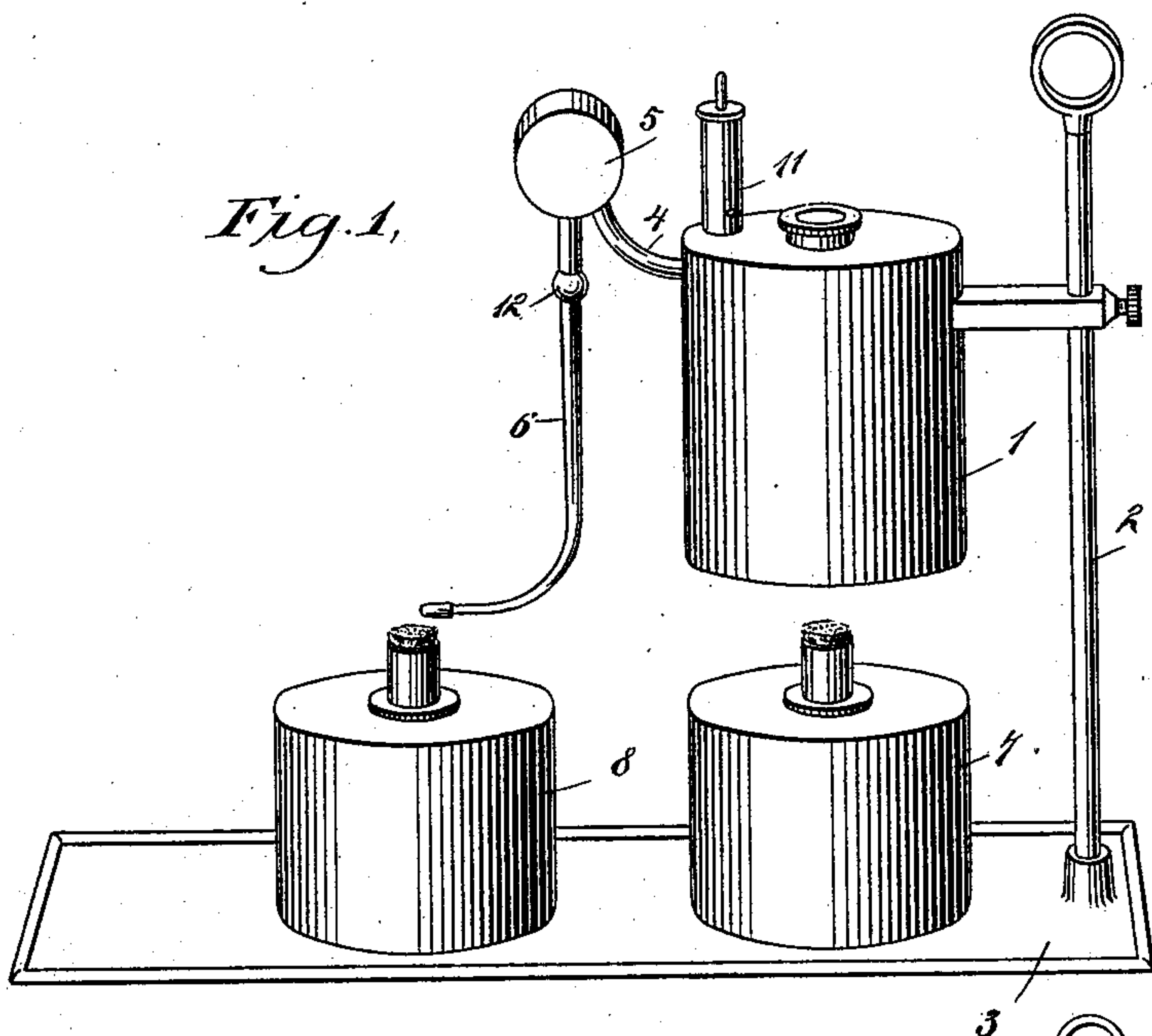


(No Model.)

C. H. KING.  
BLOWPIPE.

No. 601,208.

Patented Mar. 22, 1898.



WITNESSES:

Edward Thorpe.  
C. R. Ferguson

INVENTOR

C. H. King.

BY

Munn & Co.  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

CHARLES H. KING, OF GRANITE FALLS, MINNESOTA, ASSIGNOR TO  
FRANKLIN J. CRESSY.

## BLOWPIPE.

SPECIFICATION forming part of Letters Patent No. 601,208, dated March 22, 1898.

Application filed September 11, 1897. Serial No. 651,332. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. KING, of Granite Falls, in the county of Yellow Medicine and State of Minnesota, have invented a new and Improved Blowpipe, of which the following is a full, clear, and exact description.

This invention relates to improvements in blowpipes; and the object is to provide a device of this character that will blow a very strong heat without blackening the metal being soldered or otherwise treated, and, further, to provide a blowpipe that will be comparatively cheap to manufacture.

I will describe a blowpipe embodying my invention, and then point out the novel features in the appended claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a perspective view of a blowpipe embodying my invention, and Fig. 2 is a vertical section thereof.

Referring to the drawings, 1 designates a boiler supported by and adjustable vertically on a standard 2, mounted on a base-plate or tray 3. The boiler has a plug-closed filling-hole in its top, and from the upper portion of the boiler a tube 4 extends upward and provides communication between the interior of the boiler and a condensing-cylinder 5. A blowpipe 6 extends into the condensing-cylinder 5, and, as will be seen in Fig. 2, the end of the blowpipe within the cylinder extends nearly to the top thereof and considerably above the inlet of the tube 4, so that moisture resulting from condensation will be prevented from entering the pipe 6 and mingling with the flame.

Underneath the boiler 1 is a heating-lamp

7 for heating the liquid in the boiler, and arranged adjacent to the outlet of the pipe 6 is a flame-lamp 8. In connection with the device I may employ a hood 9, in which the lamp 8 will be placed. This hood is open at one end and at the top, and it has a deflector-plate 10 in line with the outlet of the tube 6. When in use, the flame forced against the plate 10 will rebound against the sides of the hood and thus economize the heat to be applied to any article placed on the open top of the hood.

Preferably I will use alcohol in the lamps and also in the boiler, as it is well known that an alcohol-flame will not blacken articles subjected to it.

In use I generally half-fill the boiler, and when the alcohol shall have reached the boiling-point the pressure will cause a strong blast through the blowpipe, and for additional safety I provide the boiler with a safety-valve 11, which may be of any desired construction. If desired, the blowpipe 6 may be made to rotate at the bulb 12, so as to direct the flame as required.

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

A blowpipe, comprising a boiler, a heating-lamp, a blowpipe communicating with the boiler, a flame-lamp, a tray on which the lamps are mounted, a hood mounted on the tray and open at one end and at the top, and a deflector-plate depending from the hood in line with the outlet of the blowpipe, the said plate causing the flame to rebound, substantially as specified.

CHARLES H. KING.

Witnesses:

ELIJAH BLOOM,  
C. A. FERGUSON.