

F. C. BARBER & O. J. PRICE.
Blow-Pipes.

No. 154,632.

Patented Sept. 1, 1874.

Fig. 1.

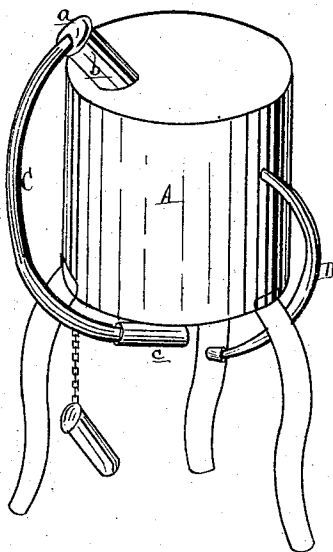
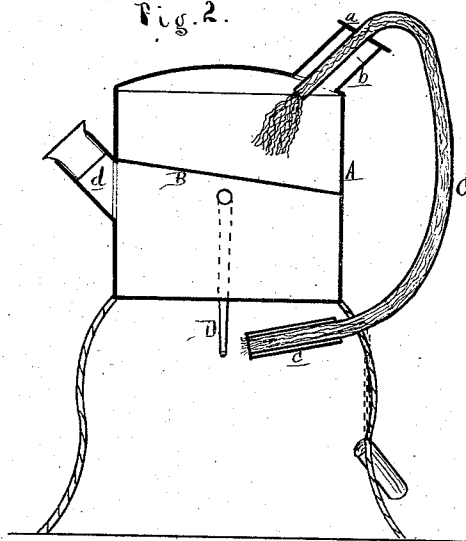


Fig. 2.



ATTEST:

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UNITED STATES PATENT OFFICE.

FERNANDO C. BARBER AND ORRIN J. PRICE, OF OXFORD, MICHIGAN.

IMPROVEMENT IN BLOW-PIPES.

Specification forming part of Letters Patent No. 154,632, dated September 1, 1874; application filed March 13, 1874.

To all whom it may concern:

Be it known that we, FERNANDO C. BARBER and ORRIN J. PRICE, of Oxford, in the county of Oakland and State of Michigan, have invented an Improvement in Blow-Pipes, of which the following is a specification:

The nature of this invention relates to certain improvements in blow-pipes; and the invention has for its object to so construct the device that the heat from the flame of a wick will generate steam from alcohol or other appropriate fluid, which, escaping through a suitable tube or pipe, the end of which terminates just below the end of the wick-tube, will ignite, and perform the functions of the ordinary blow-pipe, thereby saving the necessity of blowing with the mouth by the operator, and, at the same time, giving him the use of both his hands for his work.

Figure 1 is a perspective of our device. Fig. 2 is a vertical cross-section of the same.

Like letters indicate like parts in each figure.

In the accompanying drawings, A represents a tight metallic vessel, divided into two compartments, upper and lower, by the diaphragm B, so that there is no communication between the two. C is a curved wick-tube, the upper end of which passes through the cork *a* in the neck *b*, through which the upper compartment may be filled with alcohol by a removal of the cork. This wick-tube terminates, on nearly a horizontal plane, under the vessel, and its end

is provided with a sleeve, *c*, by means of which the flame is increased or diminished at will.

The upper compartment filled with alcohol, and the wick-tube being provided with a proper wick, is ready for operation. The lower compartment is also nearly filled with alcohol through the neck *d*. Leading from near the top of the lower compartment is the blow pipe or tube D, the lower end of which terminates on a plane near, and a trifle below, the end of the wick-tube.

The sleeve *c* being withdrawn, the wick is lighted, and, with a large flame, soon converts the alcohol in the lower compartment into steam or gas, which, under pressure, escapes from the tube or pipe D, and, igniting from the wick-flame, performs the functions of the ordinary blow-pipe. As less flame is required, the sleeve *c* may be forced forward to reduce it.

What we claim as our invention, and desire to secure by Letters Patent, is—

A blow-pipe wherein the vessel A, divided into two compartments by the diaphragm B, the pipe C, having a sleeve, *c*, leading out of the upper compartment, and the pipe D, leading out of the lower compartment, are, respectively, constructed and arranged substantially as described and shown.

FERNANDO C. BARBER.
ORRIN J. PRICE.

Witnesses:

H. S. SPRAGUE,
C. E. HUESTIS.