

C. HOFFMANN.
Blow-Pipe.

No. 209,685.

Patented Nov. 5, 1878.

Fig. 1.

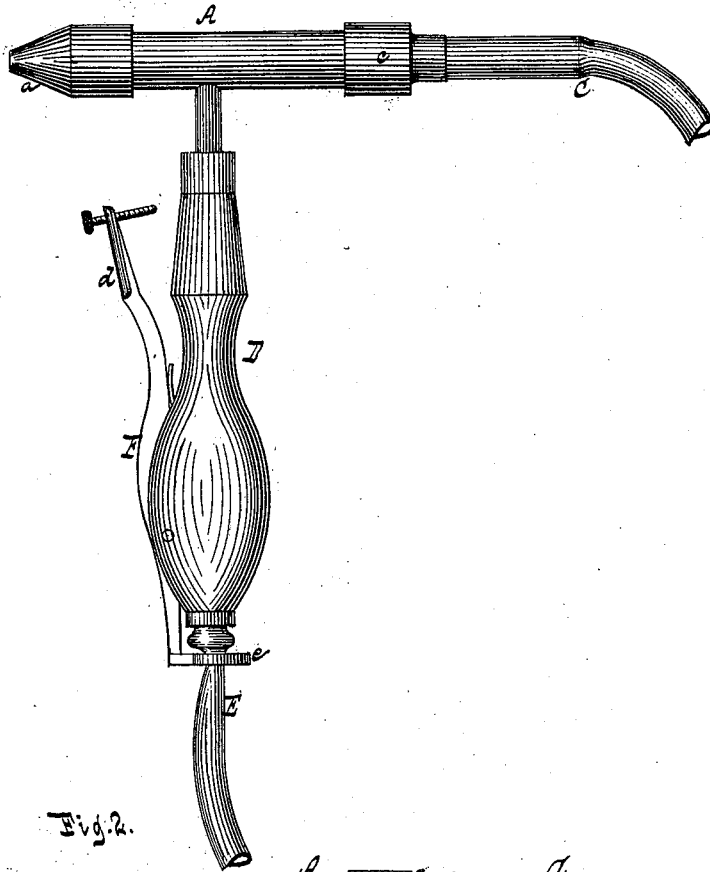
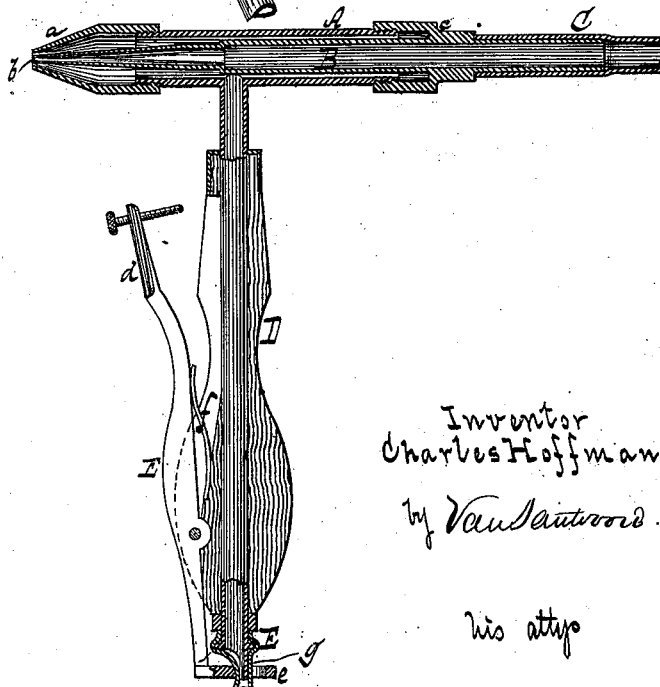


Fig. 2.



Witnesses
Otto Stupeland.
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his atty

UNITED STATES PATENT OFFICE

CHARLES HOFFMANN, OF NEW YORK, N. Y.

IMPROVEMENT IN BLOW-PIPES.

Specification forming part of Letters Patent No. 209,685, dated November 5, 1878; application filed October 16, 1878.

To all whom it may concern:

Be it known that I, CHARLES HOFFMANN, of the city, county, and State of New York, have invented a new and useful Improvement in Blow-Pipes, which invention is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a side view of a blow-pipe containing my invention. Fig. 2 is a longitudinal central section thereof.

Similar letters indicate corresponding parts.

The object of my invention is to produce a blow-pipe capable of discharging air and gas, and which is cheap and easily handled.

My invention consists in the combination of an air-pipe and a gas-pipe, which are arranged one within the other, open at one end, and respectively adapted to be connected to an air and gas supply source, so that when the proper connections are made the article emits air and gas, and a very strong flame can be produced; also, in combining with the foregoing elements a device for automatically shutting off the gas.

In the drawing, the letter A designates the outer pipe, and B is the inner pipe, of my device, both of said pipes being open at one end, where I provide the same, respectively, with a tip or nozzle, *a* or *b*. The inner pipe, B, extends through and beyond the rear end of the outer pipe, and it is secured to the latter by means of a nut, *c*, which also serves to close the rear end of the outer pipe. The rear projecting end of the inner pipe, B, is intended to receive one end of a flexible tube, C, the other end of which may be provided with a mouth-piece, so that it can be blown into or may be connected with an air-forcing apparatus.

The letter D designates a hollow support, connected to the outer pipe, A. In the example shown this support forms a handle, by which my device is manipulated; but, if desired, the support can be fastened to a table. To the lower or free end of the support D is connected a flexible tube, E, to supply the same with gas, the gas thus supplied passing up through the support to the pipe A.

The letter F designates a lever, pivoted to the side of the support D. This lever has a thumb-piece, *d*, at one end and a ring-shaped

projection, *e*, at its opposite end, embracing the flexible tube E, while it is subjected to the action of a spring, *f*, having a tendency to force the end of the lever carrying said ring-shaped projection toward the flexible tube, whereby this tube is compressed, a lip, *g*, being formed on the lower end of the support D to resist the pressure of the lever.

The lever F forms a convenient device for automatically shutting off the gas, and is of especial advantage when the support D is made in form of a handle, inasmuch as when the handle is laid down the shutting off the gas is insured; but I do not wish to be restricted to the use of the lever, as various other devices can be substituted therefor.

It will be readily seen that the blow-pipe above described is adapted to discharge a stream of gas and a current of air simultaneously, while it is simple in its construction, and can be cheaply manufactured.

It may be remarked that the air or gas may be passed through either of the pipes A or B; and, if desired, the lever F may be provided with a stop to regulate the quantity of gas that is supplied to the gas-pipe.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a blow-pipe, the combination of the outer pipe, A, and inner pipe, B, both open at one end, the inner pipe extending through and beyond the outer pipe, and adapted to receive a tube for supplying air, in combination with a hollow support, D, communicating with the pipe A, for supplying the same with gas, substantially as and for the purpose described.

2. In a blow-pipe, the combination, with an air-pipe and a gas-pipe, which are arranged one within the other, open at one end, and respectively adapted to be connected with an air and gas supply source, of a device for automatically shutting off the gas, substantially as described.

In testimony that I claim the foregoing I hereunto set my hand and seal this 14th day of October, 1878.

CHAS. HOFFMANN. [L. S.]

Witnesses:

W. HAUFF,
CHAS. WAHLERS,