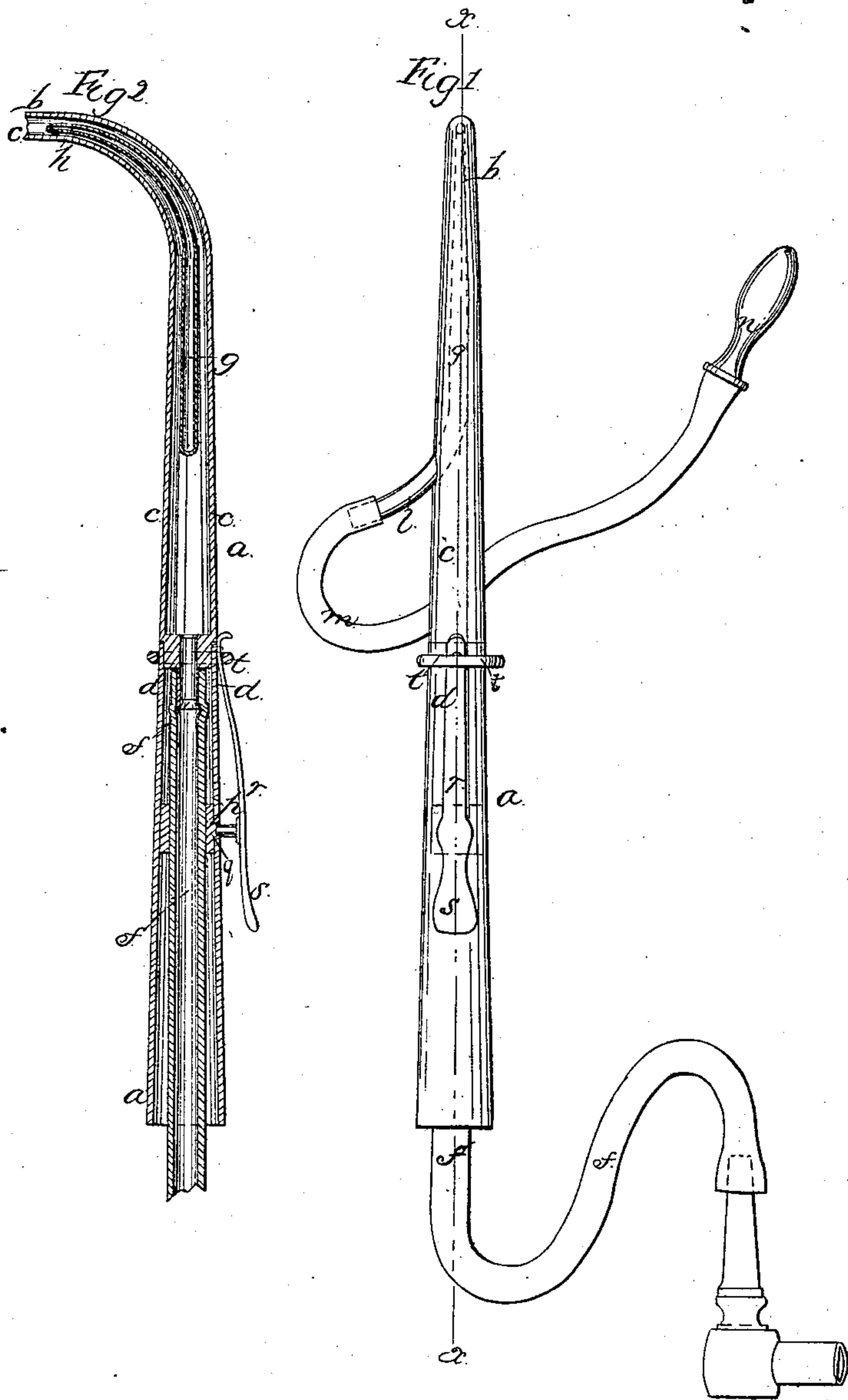


N. W. Kingsley,

*Blow Pine,*

*N<sup>o</sup> 53,629.*

*Patented Apr. 3, 1866.*



witnesses  
 C. L. H. Pliff  
 Wm. Treury

Inventor  
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# UNITED STATES PATENT OFFICE.

N. W. KINGSLEY, OF NEW YORK, N. Y.

## IMPROVEMENT IN BLOW-PIPES.

Specification forming part of Letters Patent No. 53,629, dated April 3, 1866.

### *To all whom it may concern:*

Be it known that I, Dr. N. W. KINGSLEY, of the city, county, and State of New York, have invented new and useful Improvements in Blow-Pipes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The present invention consists in attaching the blow-pipe to a gas-supply pipe by means of an elastic india-rubber or other suitable tube, which will allow it to be easily and freely moved about from place to place without disconnecting it therefrom, which tube passes up through the blow-pipe for nearly its entire length and discharges the gas passing through it into the blow-pipe, from whence it escapes through a small opening at the upper or outer end, where, being ignited, a blast of air is brought to bear against the same through an air-tube extending a short distance upon the inside of the blow-pipe and with a mouth-piece upon its outer end. Within the blow-pipe, and at the proper position thereof to bear against the elastic conducting-tube, is a small plate, which, being connected with a spring-lever upon the outside of the tube, can be made, by simply depressing such lever, to squeeze or close the rubber tube, according as the pressure is greater or smaller, thus in direct proportion regulating the flow of gas through the same to the air-blast of the blow-pipe, the advantages of which are apparent.

In accompanying plate of drawings my improvements are illustrated, Figure 1 being an exterior view of the blow-pipe with its connecting-tube applied to an ordinary gas-burner; Fig. 2, a central section of the same, taken in the direction of its length, or, in other words, in the plane of the line *xx*, Fig. 1.

*a a* in the drawings represent a blow-pipe, made of any of the ordinary kinds of metal and of a tapering shape from end to end, with its smaller end *b* partially bent around. The pipe is made in two parts or sections, *c* and *d*, properly jointed together, in the lower one of which one end of an elastic india-rubber or other suitable tube, *f*, is hung, the other end of it, when the blow-pipe is to be used, being

attached to the gas-supply pipe, or to a gas-burner or any other device connected therewith in any proper manner. In the upper or smaller portion of the blow-pipe, and for a short distance of its length, is an inner concentric tube, *g*, open at its smaller end *h*, and connected by its larger end *l* with a short elastic tube, *m*, having a suitable mouth-piece, *n*.

The blow-pipe, when it is used, is applied by its elastic pipe *f* to the gas-burner or any other suitable point of the gas-pipe, and the gas then admitted to the same, which, passing through the elastic tube, enters the section *c* of the blow-pipe, from whence, escaping at the smaller end *b*, through the orifice *o* thereof, it is ignited and a flame produced, upon which flame the blast of air passing through the air-tube *g* acts and produces the same effect as in ordinary blow-pipes.

But in order to regulate the amount of gas passing through the blow-pipe, according as may be desired or necessary, I have arranged within the lower section or part, *d*, a valve, *p*, consisting of a small metallic plate, *q*, bearing upon the outside of the elastic tube *f* and connected with a spring-lever, *r*, hung upon the outside of the blow-pipe, by pressing down which lever with its thumb-piece *s* the plate *q* can be brought to bear against the tube *f* with any desired amount of pressure, and in direct proportion thereto thus close or stop the flow of gas through it, the spring-lever, when the thumb is removed from it, springing back to its original position by the elasticity of its spring, unless desired to fix it in such position, when the fastening-ring *t* is moved upon and over it, as may be necessary, which, as is apparent, perfectly secures and holds it.

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

A blow-pipe having a valve for regulating the supply of gas thereto, arranged and operating substantially in the manner and for the purpose described.

The above specification of my invention signed by me this 9th day of August, 1865.

N. W. KINGSLEY.

Witnesses:

M. M. LIVINGSTON,  
C. L. TOPLIFF.