No. 626,603. Patented June 6, 1899.

M. P. FREDDY.

BLOWPIPE.

(Application filed Mar. 4, 1899.)

(No Model.)

Fig. 1

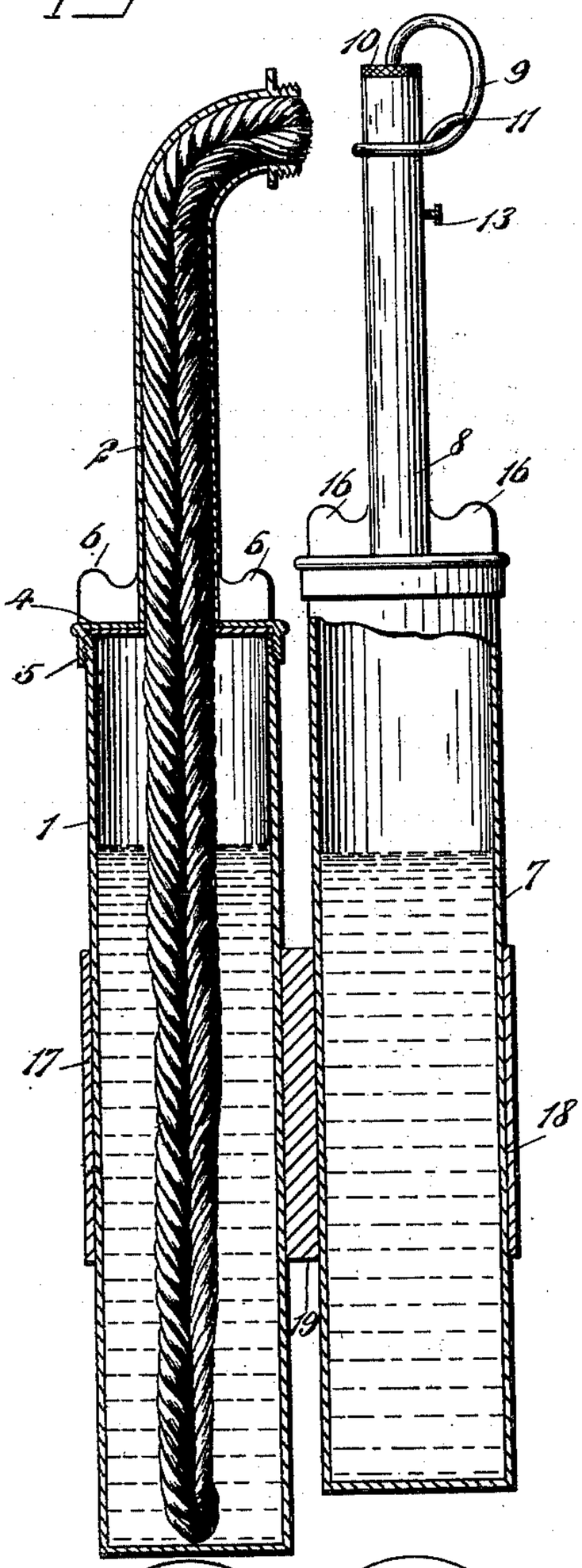


Fig. 2

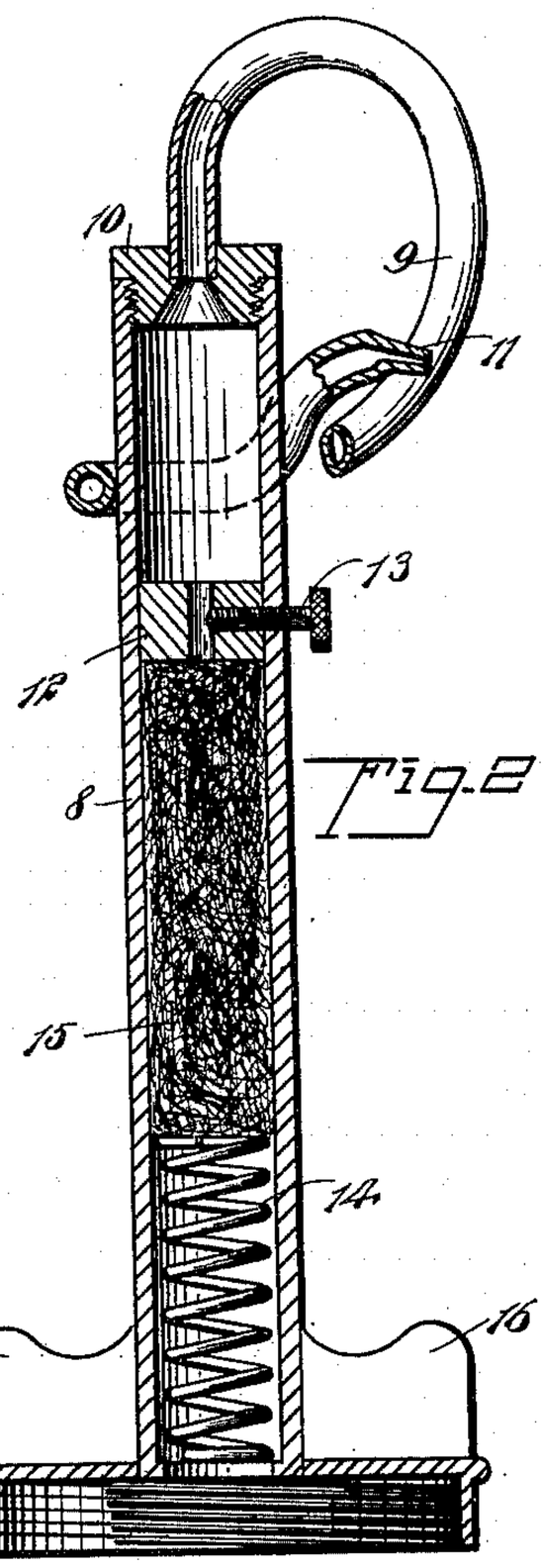


Fig. 3

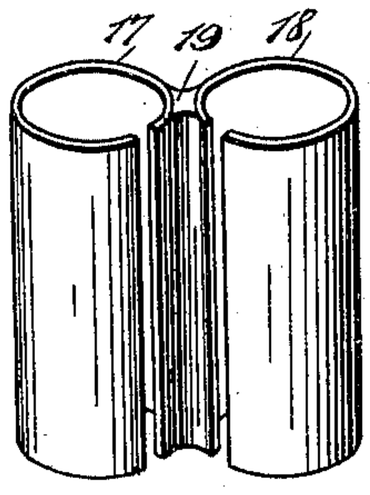


Fig. 5.

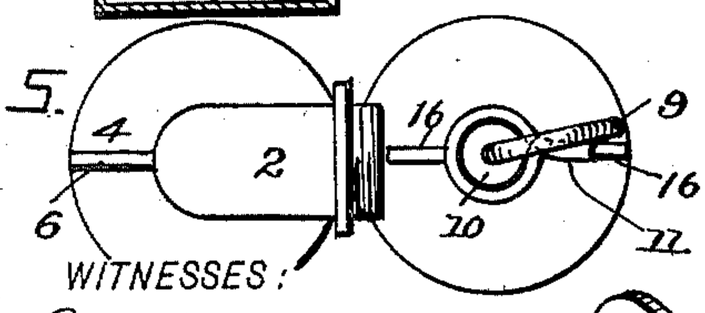
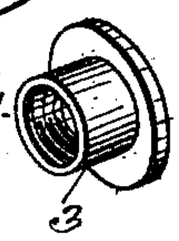


Fig. 4.



WITNESSES:

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MICHAEL P. FREDDY, OF LENA, ILLINOIS, ASSIGNOR OF THREE-FOURTHS TO GEORGE S. ROUSH, ALLEN SALTER, AND WALLACE E. TUCKER, OF SAME PLACE.

BLOWPIPE.

SPECIFICATION forming part of Letters Patent No. 626,603, dated June 6, 1899.

Application filed March 4, 1899. Serial No. 707,765. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL P. FREDDY, of Lena, in the county of Stephenson and State of Illinois, 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 particularly adapted for the use of jewelers, dentists, and the like in brazing and soldering; and the object is to provide a blowpipe of comparatively small size, so that it may be carried in a person's pocket, if desired, and so constructed that an absolutely steady and strong reducing-flame is produced and concentrated to a fine point without heating the body portion of the device.

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

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 all the views.

Figure 1 is a vertical section of a blowpipe embodying my invention. Fig. 2 is a longitudinal section of the jet-carrying portion of the blowpipe. Fig. 3 is a perspective view of a holding-clamp employed. Fig. 4 is a perspective view of the cap for the lamp-wick. Fig. 5 is a top plan of the device.

The lamp portion of the blowpipe comprises a fount 1 and a wick-tube 2, which is curved outward at its upper end and is adapted to receive a cap 3 for extinguishing the flame. The wick-tube 2 is removable from the fount 1. As here shown, said wick-tube has a base portion 4, provided with an internally-screw-threaded flange 5 to engage with a screw-thread on the fount, and for convenience in placing or removing the wick-tube I provide it with finger-pieces 6.

The blowpipe proper comprises a reservoir 7 for containing a vapor-producing liquid—such, for instance, as alcohol—and removably connected with the reservoir 7 is a jet-carrying tube 8, to which the jet-tube 9 is removably attached. As here shown, the jet-tube has at its base a threaded block 10, engaging with a thread in the tube 8. The object in making the jet-tube removable is so that tubes of different sizes may be employed, as required by the work in hand. The tube 9 is curved downwardly and then is turned around the tube 8, so that a considerable surface is provided for the heating action of the flame from the wick in the wick-tube 2. The jet-tube 9 is provided with a restricted outlet 11.

Arranged within the tube 8 is a perforated block 12, and the space between this block 12 and the block 10 forms a pressure and heating chamber in said tube 8. The perforations through the block 12 may be regulated or entirely closed by a suitable valve. As such valve I have here shown a screw 13. Arranged in the tube 8, between the block 12 and a spring 14 in said tube, I place cotton wicking 15. This cotton wicking is designed to steady the flow of vapor from the reservoir 7 to the jet-tube 9, as the spring 14 will hold the cotton under proper compression. This wicking will also retard and hold any impurities that might be carried up with the vapor. The tube 8 has a screw-thread engagement with the reservoir 7, and for convenience in placing or removing the tube I provide it with finger-pieces 16.

As a means for removably holding the lamp and blowpipe removably together and so that one may be adjusted relatively to the other I employ a clamp consisting of two cylindrically-disposed sections 17 and 18, which are connected together by a web 19, and each is longitudinally split or open at one side. One section is designed to engage around the fount 1 and the other section to engage around the reservoir 7. By making the parts detachable one from the other the blowpipe may be employed with any ordinary lamp.

In operation alcohol or similar material is to be placed in both the fount 1 and the reservoir 7. Then upon igniting the wick in the wick-tube 2 the flame therefrom by heating the coil of the jet-tube 9 will cause a vapor to form and discharge to produce an intense heat. The device is intended to be held in the hand. Therefore the flame may be directed as desired, and as it is quite small and compact the device may be readily carried in a person's pocket, thus making it especially convenient for traveling workmen. By ro-

tating the fount 1 the flame of the wick may be regulated against the coil at will.

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

1. A blowpipe, comprising a lamp, a reservoir for a vaporizing fluid, held adjacent to the lamp, a tube extended from said reservoir, a jet-tube connected to said tube and coiled around the same, and a block in said tube having a valve-regulated perforation, substantially as specified.

2. A blowpipe, comprising a reservoir, a jet-pipe-holding tube extended from the reservoir, a perforated block in said tube, a purifying material in the tube below the block, a valve for regulating the perforation through the block, a jet-pipe connected to the jet-pipe-holding tube and coiled around the same, and means for directing a flame to said jet-pipe, substantially as specified.

3. A blowpipe, comprising a reservoir, a jet-pipe-holding tube removably connected to said reservoir, a jet-pipe having removable connection with the first-named tube and coiled around the same, a perforated block in the jet-pipe-holding tube, there being a space between said block and the inlet of the jet-pipe, a packing of cotton or the like in the jet-pipe-holding tube below said block, and a spring in the tube for holding the cotton under pressure, substantially as specified.

4. A blowpipe, comprising a reservoir, a jet-pipe-holding tube extended from the reservoir, a jet-pipe having removable connection with the jet-pipe-holding tube and coiled around the same, means for regulating the passage of vapor through said tube, a lamp held adjacent to the reservoir and comprising a fount and a curved wick-tube, and means for connecting the fount and reservoir so that the fount and reservoir may be adjusted one relatively to the other, and from which means both the fount and reservoir are removable, substantially as specified.

5. A blowpipe, comprising a reservoir, a jet-pipe-holding tube extended from the reservoir, means for regulating the flow of vapor through said pipe, a jet-tube engaging with said tube and coiled around the same, a lamp held adjacent to the reservoir and having a fount and a wick-tube, and a clamping device for holding the lamp and reservoir consisting of two connected cylindrical sections open at one side and adapted to engage the fount and reservoir, substantially as specified.

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Witnesses:
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