

No. 834,185.

PATENTED OCT. 23, 1906.

C. E. CAMPBELL.
AIR PRESSURE SUPPLY APPARATUS FOR ATOMIZERS.

APPLICATION FILED FEB. 13, 1906.

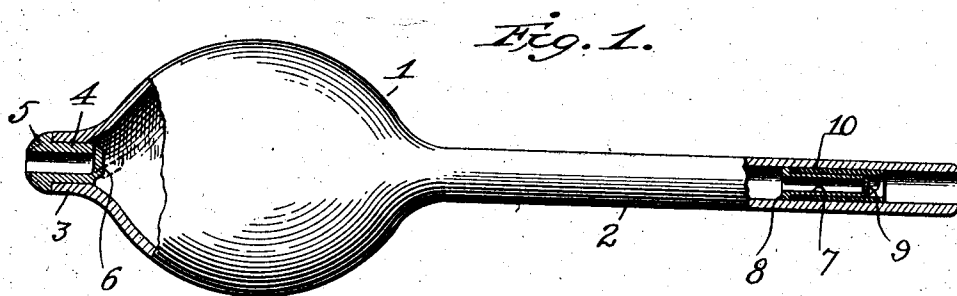


Fig. 2.

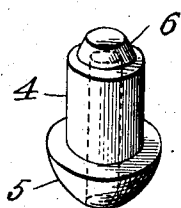
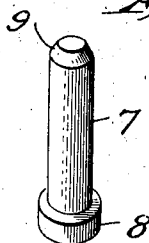


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES EDGERTON CAMPBELL, OF ASHLAND, OHIO, ASSIGNOR TO THE
FAULTLESS RUBBER COMPANY, OF AKRON, OHIO, A CORPORATION
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AIR-PRESSURE-SUPPLY APPARATUS FOR ATOMIZERS.

No. 834,185.

Specification of Letters Patent.

Patented Oct. 23, 1906.

Application filed February 13, 1906. Serial No. 300,890.

To all whom it may concern:

Be it known that I, CHARLES EDGERTON CAMPBELL, a citizen of the United States, residing at Ashland, in the county of Ashland, State of Ohio, have invented new and useful Improvements in Air-Pressure-Supply Apparatus for Atomizers, of which the following is a specification.

My invention relates to air-pressure-supply apparatus for use with vaporizer, pyrography, cautery, and other like outfits, and has for its object to provide in connection with the bulb and tubing thereof, preferably formed in one piece, the usual inlet and outlet valves, the same being formed of soft rubber integrally combined by vulcanization or otherwise with said bulb and tubing and located within said bulb and tubing. This object I accomplish in the manner and by the means hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation, partly in section, of my improved bulb and its tubing with my improved valves in position therein. Fig. 2 is an enlarged detail perspective view of the inlet-valve and its parts. Fig. 3 is a similar view of the outlet-valve.

Similar numerals of reference denote corresponding parts in the several views.

In the said drawings the reference-numeral 1 denotes the atomizer-bulb, and 2 the tubing forming the discharge end thereof, said bulb and tubing being formed in one piece. Said bulb is formed with the projecting inlet end or neck 3, into which is permanently fixed a flexible rubber tube 4, enlarged at 5 at its outer end to form the end piece of said bulb-projecting end and having formed integral therewith at its other or inner end a rubber valve-piece 6.

In the discharge-tube 2 of the device I locate the outlet-valve, the same consisting of a flexible rubber tube 7, enlarged at 8 at its inner end and having formed integral therewith at its other end the valve-piece 9. Said valve is permanently fixed within the tube 2 at a sufficient distance from the outer end of the latter to leave room for attachment to the device with which the bulb is to be used without interfering with the operation of the valve-piece 9.

In the process of manufacture the bulb 1 and tube 2 are first molded or otherwise formed of soft rubber in one piece, and the valve-tubes 4 and 7 are then inserted in their respective positions and permanently united either by vulcanization or by the use of a self-hardening or self-curing rubber-cement. In order that the outlet-valve tube 7 may be given sufficient rigidity to permit its insertion into the tube 2, I first unite with the same a sleeve 10, formed of any suitable material—such as metal, hard rubber, rigid soft-rubber stock, or the like—said sleeve being of even exterior diameter with the enlargement 8 of said tube 7. Said sleeve also serves to anchor the outlet-valve in position against displacement by the air-blast when in use.

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

1. The combination with an air-pressure bulb and an inlet-neck formed thereon, of an inlet-valve permanently located within said neck and consisting of a flexible rubber tube, an enlargement at the outer end thereof forming the finished end of the bulb, and a flexible rubber valve-piece formed integral with the inner end of said tube.

2. An air-pressure-supply apparatus, embodying a bulb, an inlet-neck formed thereon, an inlet-valve permanently located within said neck and consisting of a flexible rubber tube, an enlargement at the outer end thereof forming the finished end of the bulb, and a flexible rubber valve-piece formed with the inner end of said tube, flexible tubing connected with said bulb, and an outlet-valve permanently located within said tubing and consisting of a soft-rubber tube, a soft-rubber valve-piece formed integral with said tube at one end thereof, and a sleeve of rigid material surrounding said tube.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES EDGERTON CAMPBELL.

Witnesses:

EARLE BOYD FRASE,
JOSEPH HOLLAND.