(No Model.)

B. McGREGOR.

AIR MEDICATOR AND INJECTOR.

No. 297,427. Patented Apr. 22, 1884.

Fig. 1

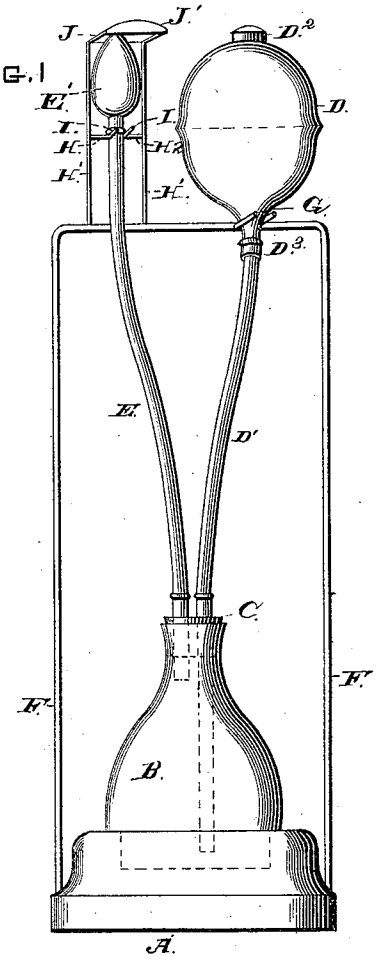


Fig. 2.

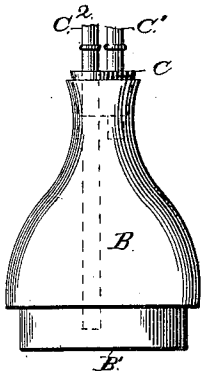
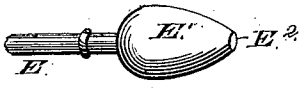


Fig. 3.



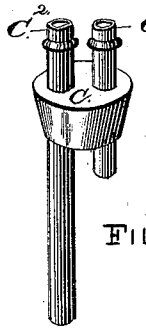


Fig. 4

Fig. 5.

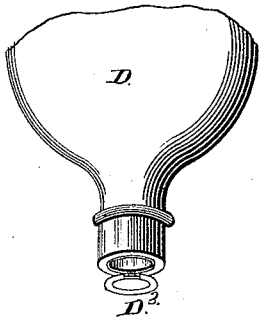
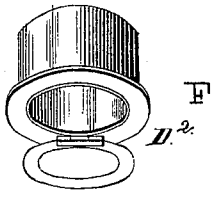


Fig. 6.



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UNITED STATES PATENT OFFICE.

BRADFORD McGREGOR, OF COVINGTON, KENTUCKY.

AIR MEDICATOR AND INJECTOR.

SPECIFICATION forming part of Letters Patent No. 297,427, dated April 22, 1884.

Application filed February 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, BRADFORD McGREGOR, a citizen of the United States, residing at Covington, in the county of Kenton and State of Kentucky, have invented certain new and useful Improvements in Devices for Medicating Air and Applying the Same; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying-drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to devices for medicating air and applying same to the affected portion of the patient's body. It consists in the novel construction, combination, and arrangement of the several parts, as will be hereinafter more fully described and claimed.

In the drawings, Figure 1 is an elevation, part in perspective, of a device constructed according to my invention. Fig. 2 is a detail view of the air-chamber and reservoir. Fig. 3 is a detail of the stopple. Fig. 4 is a detail view of the nozzle-bulb. Figs. 5 and 6 are detail views, respectively, of the lower and upper valves of the atomizer-bulb.

The base A is provided in its upper side with a socket or seat, in which fits the lower portion or reservoir, B′, of the bottle or air-chamber B. A stopple, C, is fitted to the mouth of the bottle, and is provided with two tubes, C′ C^2, both of which project slightly above the stopple, in order to receive the flexible tubes presently described. One of these tubes, C′, projects only a short distance into the bottle or air-chamber, while the other, C^2, extends down into the reservoir B′, as will be understood from Figs. 1 and 2. A flexible tube, D′, has one end connected to the upper end of tube C^2, and is provided at its other end with the atomizer-bulb D. This bulb is provided with valves D^2 D^3, arranged at respectively its outer and inner ends, and most clearly shown in Figs. 5 and 6. A flexible tube, E, is connected at one end with the tube C′, and is provided at its opposite or outer end with a bulb-nozzle, E′, which is provided in its outer end with a discharge-opening, E^2. This bulb is useful on using the device, inasmuch as it fits the nostrils, and will enable the application of the vapor in such manner that none of it will be wasted, and the nostrils will be closed, so the beneficial action of the vapor will be increased.

In operation it will be understood the bottle is supplied with a sufficient quantity of the medicament in a fluid form to fill the reservoir B′. The portion of the bottle above said reservoir is utilized as an air-chamber. As the atomizer-bulb is operated in the usual manner, the air in the chamber is forced out through the bulb-nozzle in the form of a vapor.

In order to properly support the described parts, I bend a rod so as to provide the standards F and the cross-bar F′, forming an arch, which is supported on the base A by securing the lower ends of the standards F thereto, as shown. This arch is provided with two lateral studs, G G, projected preferably from the cross-bar F′, and a sufficient distance apart to permit the base of the atomizer-bulb to be inserted therebetween. By this means a convenient support is provided for the said bulb, where it may be held while not in use, or when in use where so desired.

On the main arch F F′, I mount a supplemental frame or arch, H, composed of standards H′, cross-bar H^2, having supports I I, similar to supports G G, and the spring-frame J. The bulb-nozzle is held when not in use by supports I I, and its upper open end is closed by a non-porous flexible sheet, J′, stretched over frame J, which latter is made with a spring or tension, so as to hold the covering-sheet tightly over the discharge-opening of the bulb-nozzle and prevent the evaporation of the medicament when the device is not in use.

It is manifest that where so desired, instead of forming the connection of the atomizer-bulb through the stopper, as before described, said connection might be formed with the reservoir through the bottom or side thereof. For convenience, I prefer the construction and arrangement as shown and before described.

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

1. In a device for medicating and applying air, the combination, with the bottle having a reservoir in its lower end, and the tubes D′ E, connected with such bottle, substantially in the

manner described, and provided with bulbs D E′, of the base provided in its upper side with a socket fitted to receive said reservoir, and the frame or arch mounted on said base and provided with supports adapted to hold said bulbs, substantially as set forth.

2. The combination of the bottle, the base adapted to receive the same, the discharge-tube E, having a bulb-nozzle, E′, provided with a suitable discharge-opening, and the supply-frame provided with means for holding the bulb-nozzle, and having a spring-cap arranged to bear on the bulb-nozzle and close the discharge-opening thereof, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

BRADFORD McGREGOR.

Witnesses:
D. A. GLENN,
R. H. GRAY.