No. 628,484. Patented July 11, 1899.

R. E. MERCER.

DEVICE FOR ADMINISTERING ANESTHETICS.

(Application filed May 9, 1898.)

(No Model.)

Fig. 2.

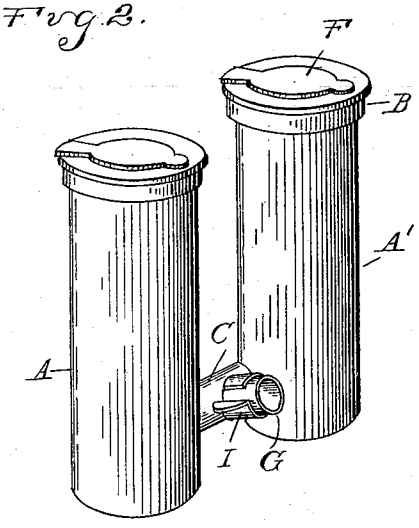

Fig. 3.

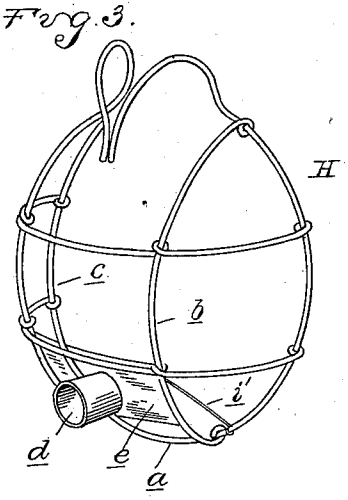

Fig. 1.

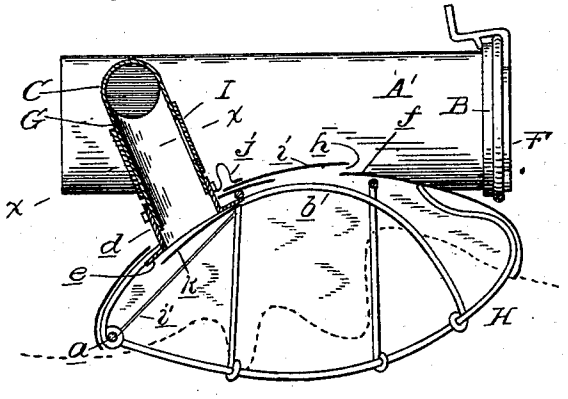

Fig. 4.

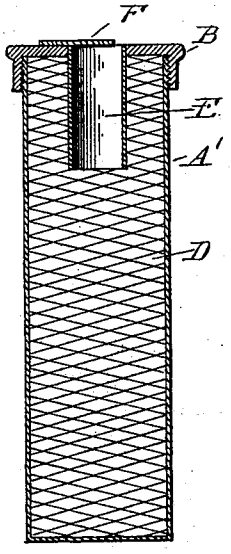

Fig. 5.

Witnesses
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UNITED STATES PATENT OFFICE.

RICHARD E. MERCER, OF DETROIT, MICHIGAN.

DEVICE FOR ADMINISTERING ANESTHETICS.

SPECIFICATION forming part of Letters Patent No. 628,484, dated July 11, 1899.

Application filed May 9, 1898. Serial No. 680,125. (No model.)

To all whom it may concern:

Be it known that I, RICHARD E. MERCER, a subject of the Queen of Great Britain, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Devices for Administering Anesthetics, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to devices for the administering of anesthetics, comprising a hood for covering the nose and mouth of the patient and an inhaler or mixing-tube for the anesthetic connected with said hood.

The invention consists in the peculiar construction, arrangement, and combination of parts, as more fully hereinafted described and claimed.

In the drawings, Figure 1 is a central longitudinal section. Fig. 2 is a perspective view of the anesthetic-holder. Fig. 3 is a perspective view of the skeleton frame of the hood. Fig. 4 is a longitudinal section through one of the inhalers; and Fig. 5 is a cross-section on line $x\,x$, Fig. 1.

The anesthetic-holder which I employ with my device comprises two separate tubes or holders for the anesthetics, A and A′, each preferably consisting of a cylindrical metallic casing closed at one end and having a detachable cap B at its opposite end. These casings are arranged parallel to each other and are cross-connected by a tube C near the closed end of each casing. Within the casings are arranged suitable absorbent or porous material for holding the liquid anesthetic, this being preferably formed of a roll of fine gauze D.

The caps B are provided with air-inlet passages, preferably formed by apertures therein and short tubes E, surrounding said apertures and extending into the casings. These inlet-passages are controlled by valves, which I have shown as pivotal lids F, but which may be of any suitable construction.

The tube C has connected therewith a tube G, forming a common connecting-passage between the two casings and the hood H. This tube has an air-inlet aperture controlled by a valve I, preferably in the form of a ring segment, adapted to be turned to entirely close the aperture or to open it to any degree desired.

The hood H comprises a skeleton frame formed of wire and a covering of a flexible air-tight material, preferably rubber cloth. The skeleton frame is formed of a base-ring a, curved to fit around the mouth and arched to pass over the nose of the patient, and the cross arches or ribs b and c, connected with said base.

d is a nipple or short section of tube connected to the plate e on the frame and adapted to connect with the end of the tube G. The covering f is apertured to fit around the nipple d, and also has the aperture h, which is covered by a flap i, adapted to form an outwardly-opening check-valve. This flap may be secured in position by a clip j, fastened to the nipple d. k is another flap secured by the spring-clip l' inside the hood and covering the aperture of the nipple d.

The parts being constructed as shown and described, in the use of the device the tubes A A′ are first charged with the liquid anesthetic, preferably a different anesthetic in each, such as chloroform and ether. The hood is then secured to the inhaler by engaging the nipple d with the tube G. When the hood is placed in position covering the nose and mouth of the patient, the valves F and I may be adjusted so as to give any desired strength or proportionate mixture of the anesthetic vapor. Thus if the valve I is open and the valves F are closed the patient will receive nothing but pure air. As the valves F are opened and the valve I closed the strength of the vapor is increased, while the relative degree of opening of the two valves F will determine the proportion of the different anesthetics. The respiration of the patient will operate the flap-valves i and k, closing the latter and opening the former at each inhalation, and vice versa at each exhalation. The valve K also forms an indication of the strength of respiration, so that the attendant by observing the degree of movement of the flap can tell just the condition of the patient.

My device is so constructed that when placed on the face of the patient it will remain standing without attention from the attendant. This is due to the shape of the

hood and the horizontal arrangement of the inhalers on opposite sides of the central plane.

What I claim as my invention is—

1. In a device for administering anesthetics, the combination with the hook of two separate anesthetic-holders, having a common inlet connection with said hood and an air-inlet valve in said common connection.

2. In a device for administering anesthetics, the combination with the hood of two separate anesthetic-holders, having a common inlet connection with said hood, an air-inlet valve in said common connection and valves controlling the air-inlet in each holder.

3. A device for administering anesthetics comprising; a hood adapted to fit around the mouth and arch over the nose of the patient and having an outwardly-projecting inlet-nipple; and a double anesthetic-holder consisting of two cylindrical casings, a cross connecting-pipe therefor, and a common outlet-pipe from said connecting-pipe adapted to detachably engage with said nipple on the hood.

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

RICHARD E. MERCER.

Witnesses:

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OTTO F. BARTHEL.