

No. 702,144.

Patented June 10, 1902.

E. M. MORGAN.

INHALER.

(Application filed June 12, 1901.)

(No Model.)

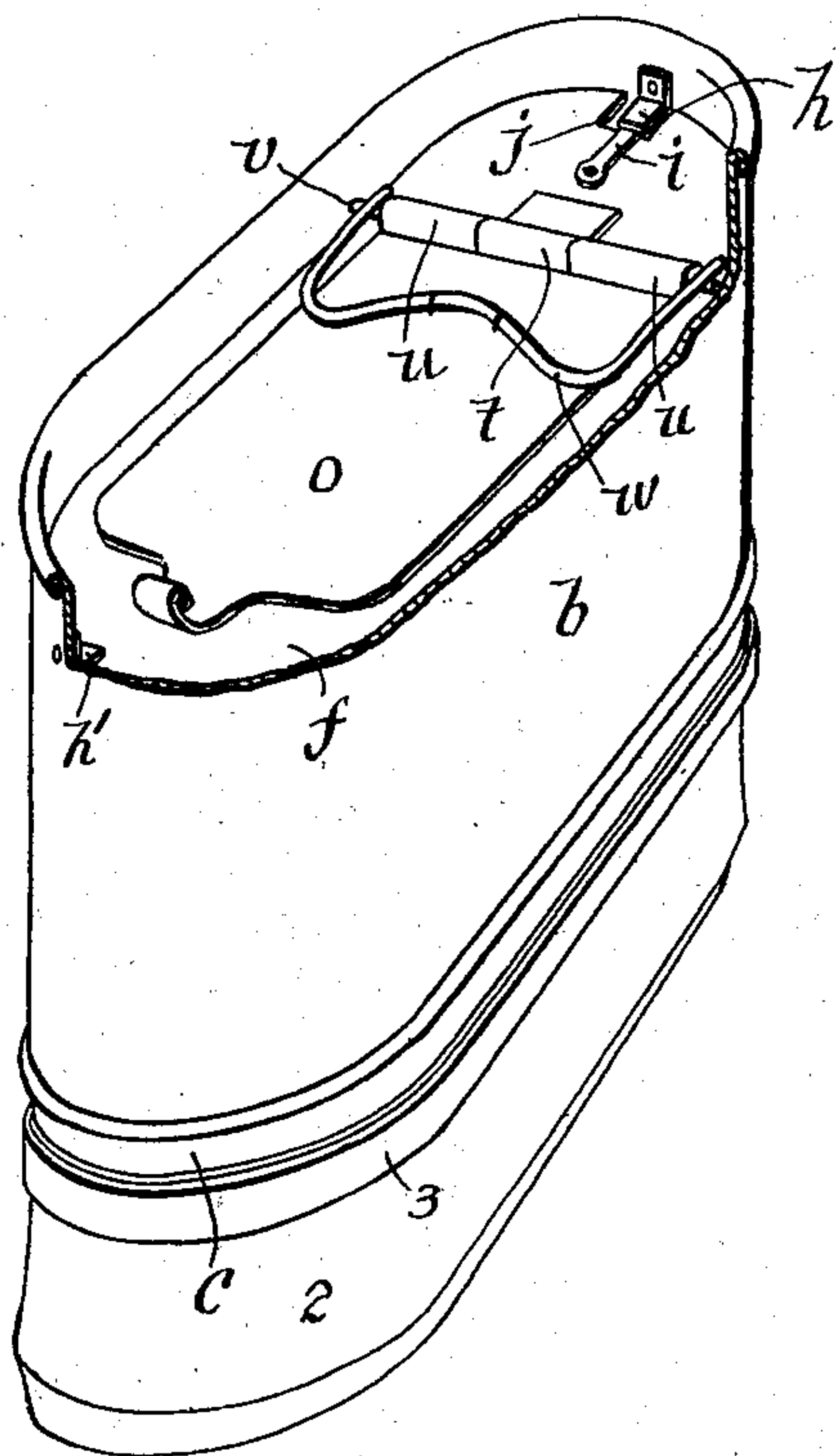


FIG. 1

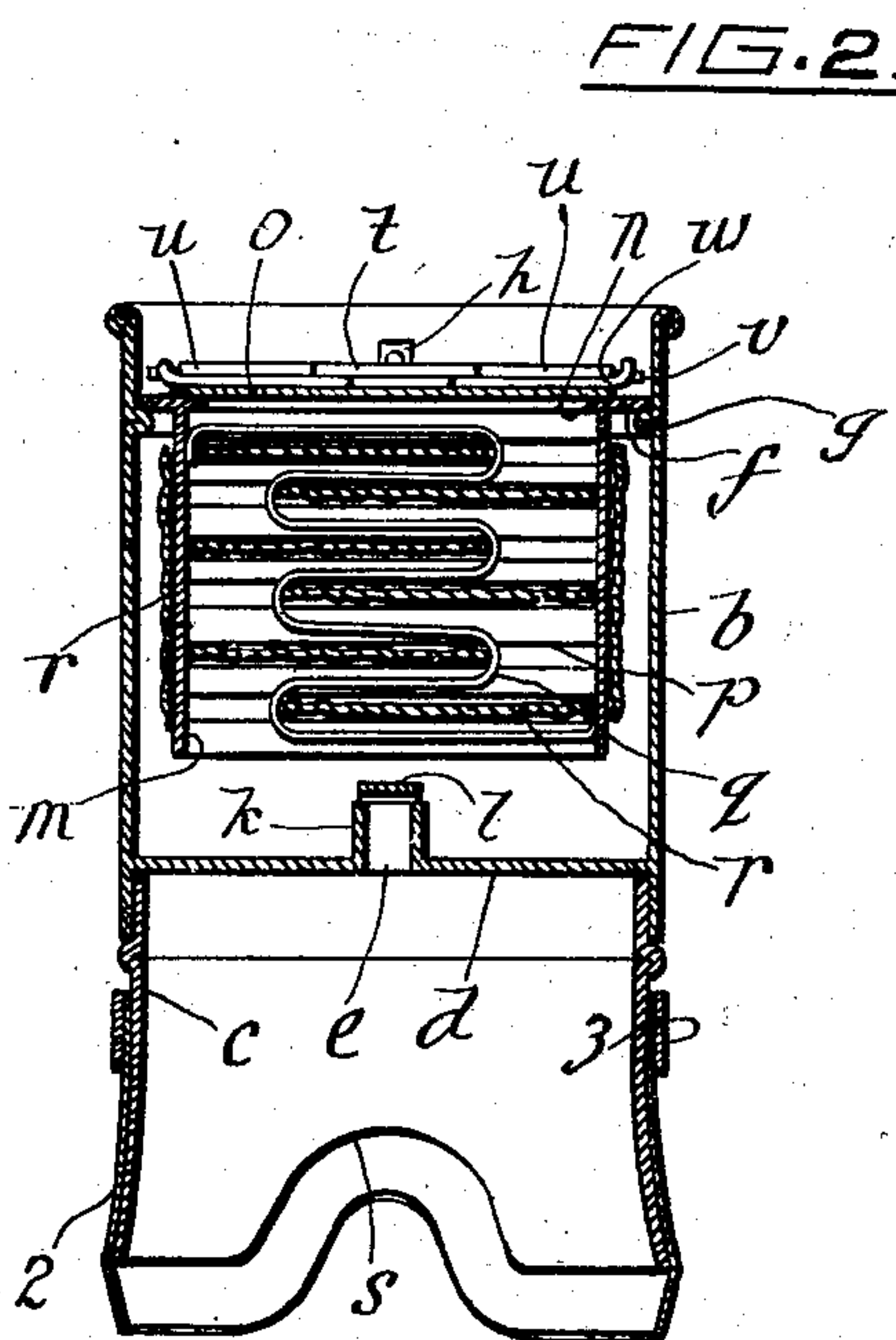


FIG. 2

Witnesses
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Inventor

By [Signature] Attorney

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UNITED STATES PATENT OFFICE.

EDWARD MOMPESSEON MORGAN, OF WESTMOUNT, CANADA.

INHALER.

SPECIFICATION forming part of Letters Patent No. 702,144, dated June 10, 1902.

Application filed June 12, 1901. Serial No. 64,316. (No model.)

To all whom it may concern:

Be it known that I, EDWARD MOMPESSEON MORGAN, doctor of medicine, of the town of Westmount, district of Montreal, and Province of Quebec, Canada, have invented certain new and useful Improvements in Inhalers; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates particularly to anesthetic inhalers of the type disclosed in Letters Patent of the United States granted to me on April 16, 1901, under No. 672,151.

The object of the invention is to facilitate the introduction of the bandage and improve the zigzag draft therethrough.

A further object of the invention is to better enable the valvular cover to be retained in any position to which it may be moved and to obviate by simple and inexpensive means the liability of air to leak between the edges of the hood and the patient's face and be inhaled by the patient, together with the inhalent, thereby weakening the latter.

My invention may be said briefly to consist in providing a serpentine retainer extending through the middle of the box for containing the bandage in the direction of the opening therethrough, the bandage being passed successively through the successive folds in said serpentine retainer. A bow-spring is secured midway of its length to the valvular cover for controlling the inspirational draft through the inhaler, and the ends thereof are adapted to bear upon the ends of the hinge-spindle mounted rigidly on the top of the inhaler and upon which the valvular cover turns, and finally a flexible auxiliary hood is carried by the hood proper and effects a packing between the inhaler and the face of the patient.

For full comprehension, however, of my invention reference must be had to the accompanying drawings, forming a part of this specification, in which like symbols indicate the same parts, and wherein—

Figure 1 is a perspective view of my improved anesthetic inhaler, and Fig. 2 is a transverse vertical sectional view thereof.

The carrying part or hood is divided horizontally into a box-like portion *b* and a hood portion proper, *c*, the box-like portion being

constituted by the walls *b*, a bottom plate *d*, provided with a slot *e*, and soldered or otherwise secured at its edges to the lower end, and a removable top plate *f*, retained upon a bead *g* by a pair of rigid clips *h h'* on the hood and a latch *i* on the plate *f*. This plate *f* is slotted, as at *j*, to allow it to pass the clip *h* when the latch is moved out of line therewith and the plate is being removed. The slot *e* has walls *k* and a guard-strap *l*, as set forth and claimed in my before-mentioned patent, and the plate *f*, with the parts carried thereby, is largely of the construction disclosed and claimed in my said patent, in that said plate has a box *m* depending therefrom, an opening *n* therein communicating with said box, and a valvular cover *o* for said opening. The depending box *m* has a series of parallel slits *p* in each of two of its opposite sides, and its other two opposite sides have the opposite ends of a serpentine wire *q* connected rigidly thereto by solder or otherwise. The folds of this wire are adapted to coincide with the slits *p*, and a bandage *r* is passed through said slits, the folds in the wire, and across the interior of the box in zigzag form, and preferably finally wound around the box while the bottom of said box is open. The valvular cover *o* is hinged to the end of the plate adjacent to that end of the hood which is notched, as at *s*, to accommodate the patient's nose, and this hinge consists of a lug *t*, fixed rigidly upon the plate, and a pair of lugs *u*, straddling said lug *t* and integral with the cover. A hinge pin or spindle *v* is mounted rigidly in the lug *t* and projects through the lugs *u*, which are of a sufficiently large interior diameter to move freely over said pin or spindle. A bow-spring *w* is secured midway of its length to said cover and has its ends bearing upon the ends of said pin or spindle to provide sufficient friction to hold the cover in any position to which it may be moved.

An auxiliary flexible hood is carried on the end of the hood proper which comes in contact with the face. This auxiliary hood consists of a wide band 2 of thin elastic, having one edge cut to conform to the shape of the said end of the hood proper, and is retained in place by a narrower retaining-band 3 of

thicker elastic and preferably made in one with said auxiliary hood. The function of this auxiliary hood is to prevent during inhalation the leakage of air between the hood proper and the patient's face.

The advantages of constructing the bandage-box as above described are that the introduction of the bandage is facilitated, and the interior of the sides of the box being practically free of projections and open at both ends it is more readily cleansed, while the particular arrangement of the valvular cover to open toward the head of the patient protects the anesthetist from the expiration of the patient.

What I claim is as follows:

1. An inhaler comprising a box slotted at opposite points, a bandage passed through said slots across the interior of said box in zigzag form, and a single retainer extending through the middle of the interior of said box transversely of said slots and engaging the layers of said bandage, holding the alternate opposite edges thereof from the sides of the box adjacent to the edges so held.

2. An inhaler comprising a box slotted at opposite points, a bandage passed through said slots across the interior of said box in zigzag form, and a serpentine retainer extending through the middle of the interior of said box transversely of said slits and the inside of the folds thereof receiving the layers of said bandage, holding the alternate opposite edges there-

of from the sides of the box adjacent to the edges so held, substantially as described.

3. An inhaler comprising a box to receive an inhalent and having an opening in each end and a hinged valvular cover for controlling the opening in one end, a hinge for connecting said cover to said box and having a rigid hinge pin or spindle projecting at each end beyond said hinge, a bow-spring secured midway of its length to said cover and having its ends bearing upon said ends of the rigid hinge pin or spindle for causing an abnormal friction in said hinge to retain the valvular cover in any position to which it may be moved substantially as described.

4. The combination with the hood of an inhaler, of an auxiliary thin elastic hood and an elastic band of greater tension retaining said auxiliary hood upon said hood of the inhaler, substantially as described and for the purpose set forth.

5. The combination with the hood of an inhaler, of an auxiliary thin elastic hood and an elastic band of greater tension than and integral with said auxiliary hood, substantially as described and for the purpose set forth.

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

EDWARD MOMPESON MORGAN.

Witnesses:

FRED. J. SEARS,

FRANK H. DENMAN.