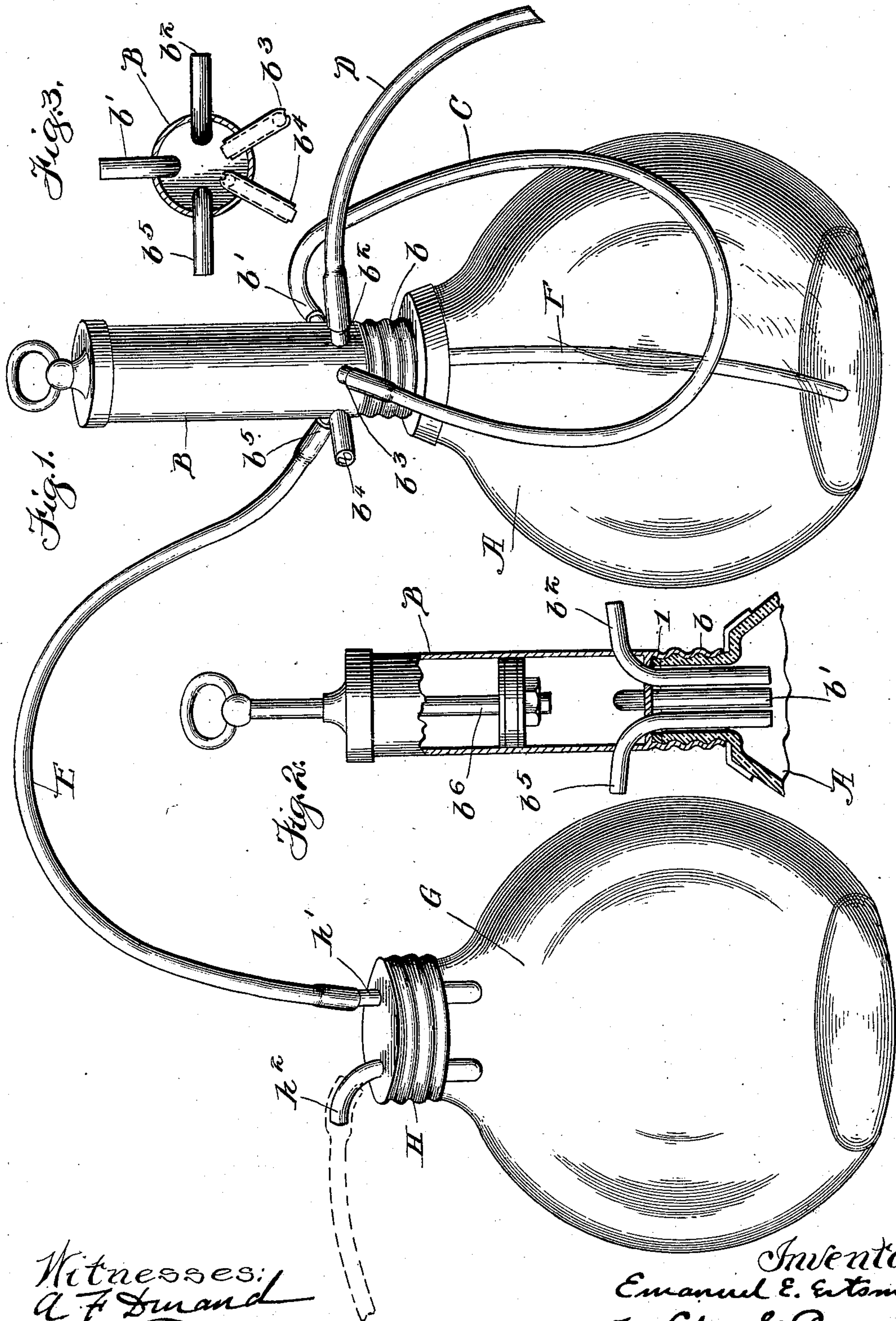


No. 661,118.

Patented Nov. 6, 1900.

E. E. ERTSMAN.
EMBALMING APPARATUS.
(Application filed Feb. 24, 1900.)

(No Model.)



Witnesses:
A. F. Duane
A. A. Devine

Inventor:
Emanuel E. Ertzman
by Charles L. Page, Atty.

UNITED STATES PATENT OFFICE.

EMANUEL E. ERTSMAN, OF CHICAGO, ILLINOIS.

EMBALMING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 661,118, dated November 6, 1900.

Application filed February 24, 1900. Serial No. 6,333. (No model.)

To all whom it may concern:

Be it known that I, EMANUEL E. ERTSMAN, a citizen of the United States, residing at Chicago, (Pullman,) in the county of Cook, State of Illinois, have invented a certain new and useful Improvement in Embalming Apparatus, of which the following is a specification.

My invention contemplates an improved apparatus or device for both injecting and aspirating, the objects being to provide an arrangement which will enable the operator to fill the receptacle without detaching the pump and without disturbing the flexible-tube connection with the body, to provide certain details and features of improvement tending to render a device of this character serviceable and thoroughly reliable, and to facilitate generally the operations of injecting and aspirating.

To the attainment of the foregoing and other useful ends my invention consists in matters hereinafter set forth and claimed.

In the accompanying drawings, Figure 1 is a perspective of my improved embalming apparatus, showing the same connected up with a second receptacle for aspirating. Fig. 2 is a vertical section of the air-pump. Fig. 3 is a horizontal section through the pump.

The receptacle A can be of any suitable material. The air-pump B has its base b adapted to screw upon the neck of the receptacle. This base portion of the pump is also preferably provided with short tubes or nipples b' , b^2 , b^3 , b^4 , and b^5 , and the upper portion or barrel of the pump incloses the piston or plunger b^6 . The tubes or nipples b^2 and b^5 simply lead through the walls of the pump and provide, respectively, an outlet and an inlet for the receptacle. The tubes b^3 and b^4 serve, respectively, as induction and education passages for the pump and are provided with suitable check-valves, the valve in the former opening inwardly and the one in the latter opening outwardly. The tube or nipple b' is similar to the tubes b^2 and b^5 and is designed to afford a passage through which air can be either forced into or drawn from the interior of the receptacle. Each nipple or tube has its outer or projecting end portion adapted for insertion in the end of a flexible rubber tube. For instance, as shown in the drawings, the nipple b' is connected up

with nipple b^3 by means of a rubber tube C, and the nipples b^2 and b^5 are coupled, respectively, to the ends of long rubber tubes D and E. A rubber tube F depends from the lower end of tube b^2 and is of a length to extend to the bottom of the receptacle. With this arrangement the reciprocation of the pump-plunger will operate to exhaust the air from the receptacle, and in this way the latter can be filled by connecting the nipple b^5 with a source of liquid-supply, it being understood that during such operation the tube D is pinched to close the passage provided by it and the nipple b^2 and the tube F. When drawn into the receptacle, the fluid can then be ejected therefrom by way of tube D, it being first necessary to transfer tube C to nipple b^4 , so as to permit the reciprocation of the plunger to force air into the receptacle, and it being also necessary to pinch the tube E, so as to close the passage through it and the nipple b^5 . This ejection of the fluid from the receptacle is for the purpose of performing the operation commonly known as "injecting," and it will be readily understood that any known or approved means can be employed for connecting the tube D with the body. Also at this juncture it will be seen that the receptacle can be filled in the manner previously described without removing the pump from the bottle and without disturbing the tube connection with the body.

The apparatus thus far described can be employed for aspirating—as, for instance, by pinching tube E and arranging the tube C as illustrated—in which case the vacuum created by the pump will cause the liquid to enter the receptacle by way of tube D. It is preferable, however, to employ a second receptacle for aspirating. In Fig. 1 this second receptacle G is provided with a cap H, which preferably screws upon the neck of the receptacle and which is provided with a couple of tubes or nipples h h' , similar to those which project from the base of the air-pump. As illustrated, one of these nipples is coupled up with the tube E, and consequently any vacuum created within the receptacle A will be extended to the interior of the receptacle G. In this way the latter receptacle can be employed for aspirating, it being simply necessary to provide suitable tubing and other

means for connecting the nipple h' with the body and to then operate the pump in such manner as to create a vacuum in both receptacles.

- 5 A rubber gasket or packing-ring l is preferably provided and arranged between the top of the bottle-neck and the bottom of the pump-barrel.

The valves in the tubes or nipples b^3 and b^4 can be of any known or approved form, and for this reason the same are not illustrated.

What I claim as my invention is—

1. An embalming apparatus or device comprising a suitable receptacle, an upright air-pump having its base portion detachably engaging the neck of said receptacle and provided with induction and eduction passages, a plurality of metal tubes secured to the base of said pump and communicating with the interior of said receptacle, and means whereby one of said tubes can be connected up with either the induction or eduction passage of the pump.

2. An embalming apparatus or device comprising a suitable receptacle, an upright air-pump having its base portion threaded to engage screw-threads on the neck of said receptacle, the base portion of the pump in this way serving as a cap for said neck, a rubber gasket arranged between the top of said neck and the bottom wall of the pump-barrel, the base portion of said pump being provided with suitable air induction and eduction passages and also with a plurality of passages leading to the interior of said receptacle, and means whereby either the induction or eduction passage of the pump can be placed in communication with the interior of said receptacle.

3. An embalming apparatus comprising a glass bottle, an air-pump having its base portion detachably secured upon the neck of said bottle, the barrel of said pump being provided with suitable passages through which

air can be pumped either into or out of the said receptacle, the base of said pump being provided with liquid inlet and outlet passages.

4. An embalming apparatus comprising a suitable receptacle, an air-pump mounted upon said receptacle and having its base provided with laterally-projecting tubes or nipples which provide induction and eduction passages for the pump and which also provide suitable passages leading to the interior of the receptacle, and a flexible rubber tube by which either the induction or eduction passage of the pump can, at will, be connected up with one of said passages leading to the interior of said receptacle, substantially as and for the purpose described.

5. An embalming device comprising a suitable receptacle provided with liquid inlet and outlet passages and also with an air-passage, an air-pump detachably mounted upon said receptacle and provided with induction and eduction passages, and means whereby the said air-passage of the receptacle can, at will, be placed in communication with either the said induction or eduction passage.

6. A combined injector and aspirator comprising a suitable receptacle, an air-pump detachably mounted thereon and provided with induction and eduction passages, the base portion of said pump being also provided with liquid inlet and outlet passages for said receptacle, means whereby the interior of said receptacle can be connected at will with either the induction or eduction air-passage of the pump, a second receptacle having suitable connection with said first receptacle, and means for connecting said second receptacle with the corpse, substantially as and for the purpose set forth.

EMANUEL E. ERTSMAN.

Witnesses:

ARTHUR F. DURAND,
AGNES A. DEVINE.