

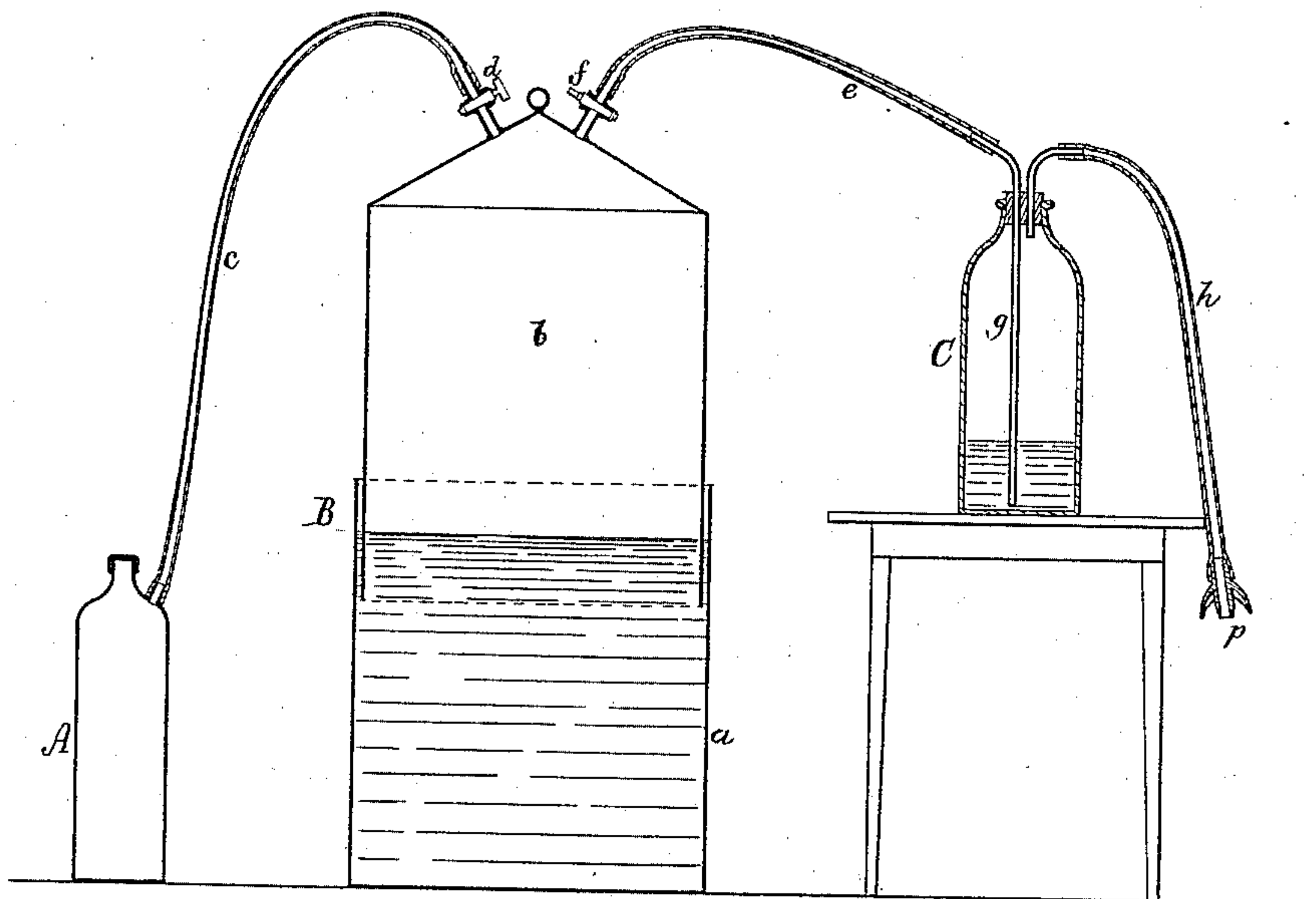
(No Model.)

U. K. MAYO.

INHALER.

No. 311,907.

Patented Feb. 10, 1885.



Witnesses

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UNITED STATES PATENT OFFICE.

URIAL KING MAYO, OF BOSTON, MASSACHUSETTS.

INHALER.

SPECIFICATION forming part of Letters Patent No. 311,907, dated February 10, 1885.

Application filed November 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, URIAL KING MAYO, of the city of Boston, in the county of Suffolk, of the Commonwealth of Massachusetts, have invented a new and useful Improvement in Apparatus for Administering Gas for the Production of Anæsthesia; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawing, which is a longitudinal section of an apparatus containing my invention, the nature of which is defined in the claim hereinafter presented.

In the said drawing, A is a condenser or strong vessel for holding the gas in a state of condensation. B is a gasometer consisting of a tank, *a*, and an inverted bell, *b*, the tank being to hold a charge of water. With the upper part of the bell *b* the vessel A communicates by means of a flexile pipe, *c*, provided with a stop-cock, *d*.

Leading out of the upper part of the bell *b* is another flexile pipe, *e*, provided with a stop-cock, *f*, and extending to and opening into an inflexible pipe, *g*, going down through the cork or stopple of a glass bottle, C; nearly to the bottom of such bottle. Another flexile pipe, *h*, having at its outer end a mouth-piece, *p*, leads out of the upper part of the bottle. In such bottle there is to be a quantity of water having a depth to cause it to extend some distance above the lower end of the pipe *g*.

The bottle C, with its induction-pipe and charge of water, operates not only to prevent waste of gas from the gasometer when the apparatus is not in use, but to indicate to the operator when gas is being extracted from the gasometer by a patient by inhalation through the mouth-piece, for when gas is being so extracted bubbles of it will be seen passing from the pipe upward through the water. The bottle C, its induction-pipe, and charge of water thus become a sure means of determining when a patient may be inhaling the gas or may have taken a sufficient quantity of it to produce the proper anæsthetic effect.

By opening the stop-cock in the pipe lead-

ing from the condenser to the bell, and closing the other stop-cock, the bell, when the tank is supplied with water, may be charged with the gas from the condenser. After such charging of the bell may have been effected the said stop-cock is to be closed, and the other is to be opened sufficiently for the head of water in the bottle C to counterbalance the tendency of the bell to descend in the water of the tank. Of course under this condition of the apparatus no gas will escape from the bell into the bottle C, and thence through the inhaling-pipe; but when the patient having such pipe at his mouth may draw by suction air from the bottle, gas will be extracted from the gasometer and will flow upward through the water in the bottle, and as the patient may continue his inhalations the gas will be drawn into his lungs. By opening the stop-cock *d* a little or sufficiently the gasometer may be kept supplied with an amount of gas equivalent to that extracted from it, the bell being by such means maintained at or about a uniform level while the apparatus may be in use.

I do not claim jars or chambers, connection and ingress tubes, and a mouth-piece arranged and for use as described and represented in the United States Patent No. 89,594, my apparatus being otherwise constructed, and having additional devices—viz., the gasometer tank and bell and the two stop-cocks, by which it is capable of producing effects, as hereinbefore stated, that cannot be obtained from the other, especially in the administration of gas for the production of anæsthesia. Therefore

I claim—

The gas-inhalation apparatus, substantially as described, consisting of the condenser, gasometer, their flexile induction-pipes and their stop-cocks, the sealing-bottle and its fluid charge, and internal and inhalation pipes, all arranged to operate in manner and for the purpose essentially as set forth.

URIAL KING MAYO.

Witnesses:

R. H. EDDY,
E. B. PRATT.