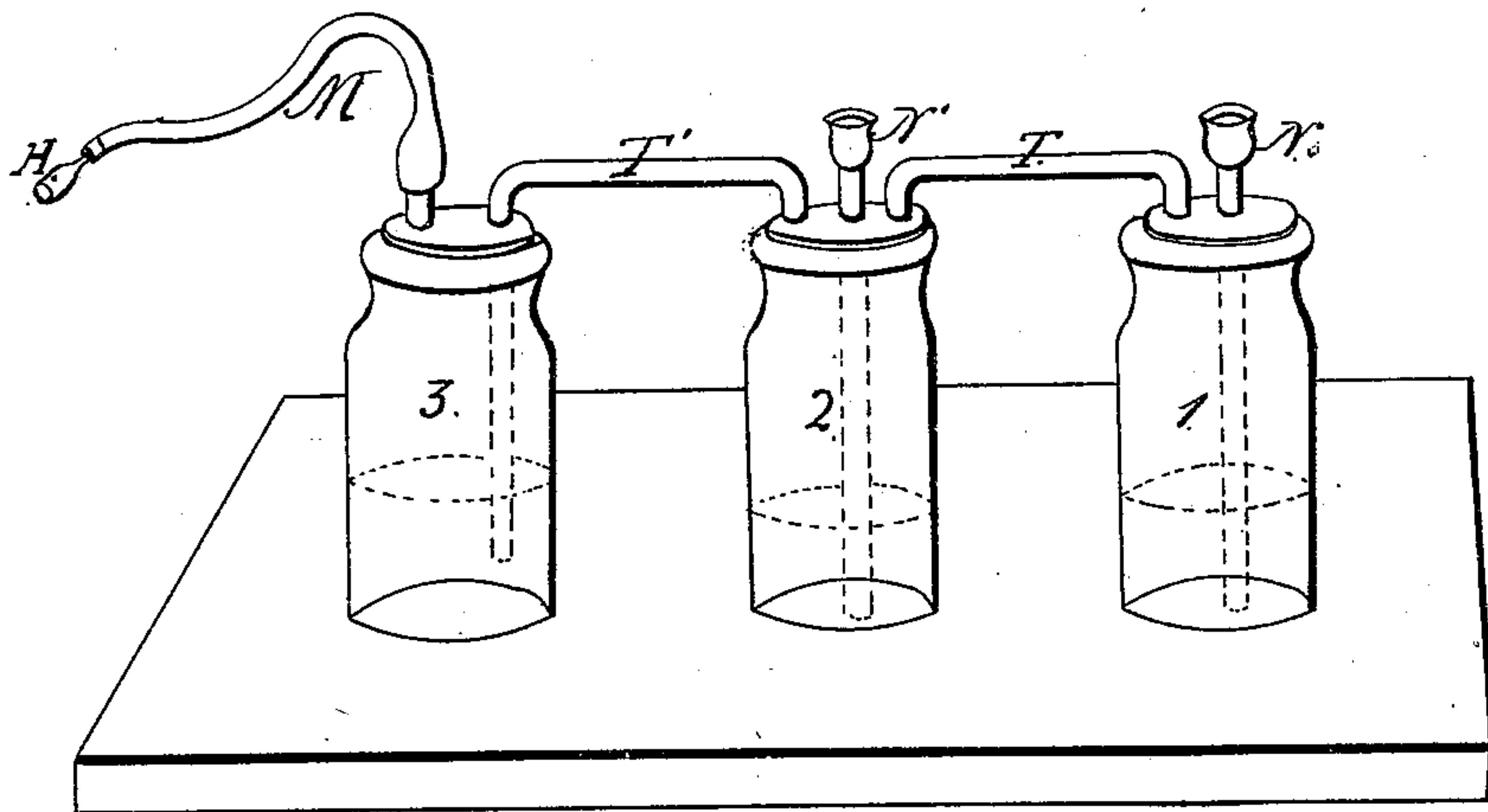


E. W. Owen.

Inhaling App's.

N^o 89,594.

Patented May 4, 1869.



Witnesses:

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EDWARD W. OWEN, OF BROOKLYN, NEW YORK.

Letters Patent No. 89,594, dated May 4, 1869.

IMPROVED INHALING-APPARATUS

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWARD W. OWEN, M. D., of the city of Brooklyn, in the county of Kings, and State of New York, have invented a certain new and useful arrangement of two or more glass or other medicated jars with connecting-pipes, for treating affections of the respiratory organs of the human or animal system by inhalation; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which are lettered to correspond with and form a part of the specification.

To enable the public to understand the nature of my invention, and those who are skilled in the science of medicine to apply the same, I will describe it as follows, to wit:

Plate 1 is a perspective view of my apparatus, which consists of three jars or chambers, 1, 2, 3, arranged as shown in the drawings, and connected together by means of the horizontal tubes, T and T', at the tops thereof.

N and N' are ingress or air-tubes, leading down into the jars 2 and 3, to within a short distance of the bottoms of the chambers 2 and 3.

The connecting-tube T' also passes beneath the surface of the water (or other liquid) in the water-chamber 1.

I do not confine myself to the above-described arrangement of the chambers 1, 2, and 3, with their connections T T' and ingress-pipes or tubes N and N', as I prefer to use any suitable vessels, of any required form or number, that may suit the exigencies of the time and place; for instance, four or more chambers may be used, if thought best, to effect the following results:

I will now describe the mode of administering medicine, by inhalation, with the above apparatus:

Bottle or chamber No. 1 (which is the third one from the patient) contains a caustic solution of ammonia.

Jar No. 2 contains the requisite amount of chemically pure nitric acid, or hydrochloric acid, as may be deemed best for the patient.

Chamber No. 3 contains pure water.

The patient takes the mouth-piece H (which is a part of the flexible tube M) in his mouth, in order that he may inhale the gas or gases contained in jar 3.

The atmospheric air is drawn down into chamber 1, through vertical tube N, and passes up through the

ammonia, and becomes charged therewith. It then passes (by means of the horizontal tube T) into bottle No. 2. The atmospheric air, being already charged with the ammonia, acts upon the surface of the acid in chamber 2 during inhalation, thereby forming, instantly an anhydrous gas—nitrate of ammonia in the one case, and in the other hydrochlorate of ammonia.

This compound gas again passes into the third chamber, (next the patient,) which contains pure water, for the purpose of washing away any impurities the gas may contain prior to its passing through the tube M, and over the mucous surfaces of the pharynx, larynx, bronchi, and into the air-cells of the lungs, by an instantaneous and direct process, by which means the old and uncertain method of absorption by the stomach is avoided, and more permanent results are obtained.

Inhalation as heretofore practised I believe to be essentially defective, for the ostensible reason that the vapors produced are of a moist nature, and consequently are condensed upon the surfaces of the mouth and pharynx, and do not enter the lungs of the patient.

Richardson, of London, employs a spray-apparatus, which is the best in use, and which I find defective, for the reasons above mentioned; hence falls short of effecting the object desired, from the fact that no large amount of liquid can be directed into the bronchi, much less into the lungs, without producing suffocation, which is not the case with my apparatus, the nature of which is the arrangement of medicated jars, 1, 2, 3, with connecting-pipes T T', for the purpose of administering medicine in a dry, gaseous state, by inhalation, without suffocation as its result. Therefore,

What I claim as new and useful, and what I wish to secure by Letters Patent of the United States, is—

One or more jars or chambers, 1, 2, 3, with the connection-tubes T and T', ingress or air-tubes N and N', with flexible (or other) pipe M, and mouth-piece H, all suitably arranged, and operating in the manner and for the purpose set forth.

In testimony whereof, I hereunto subscribe my name, in the presence of two witnesses.

EDWD. W. OWEN, M. D.

Witnesses:

JAMES P. McLEAN,
ALFRED W. OWEN.