

H. P. COLLINS.
 INHALER.
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930,841.

Patented Aug. 10, 1909.

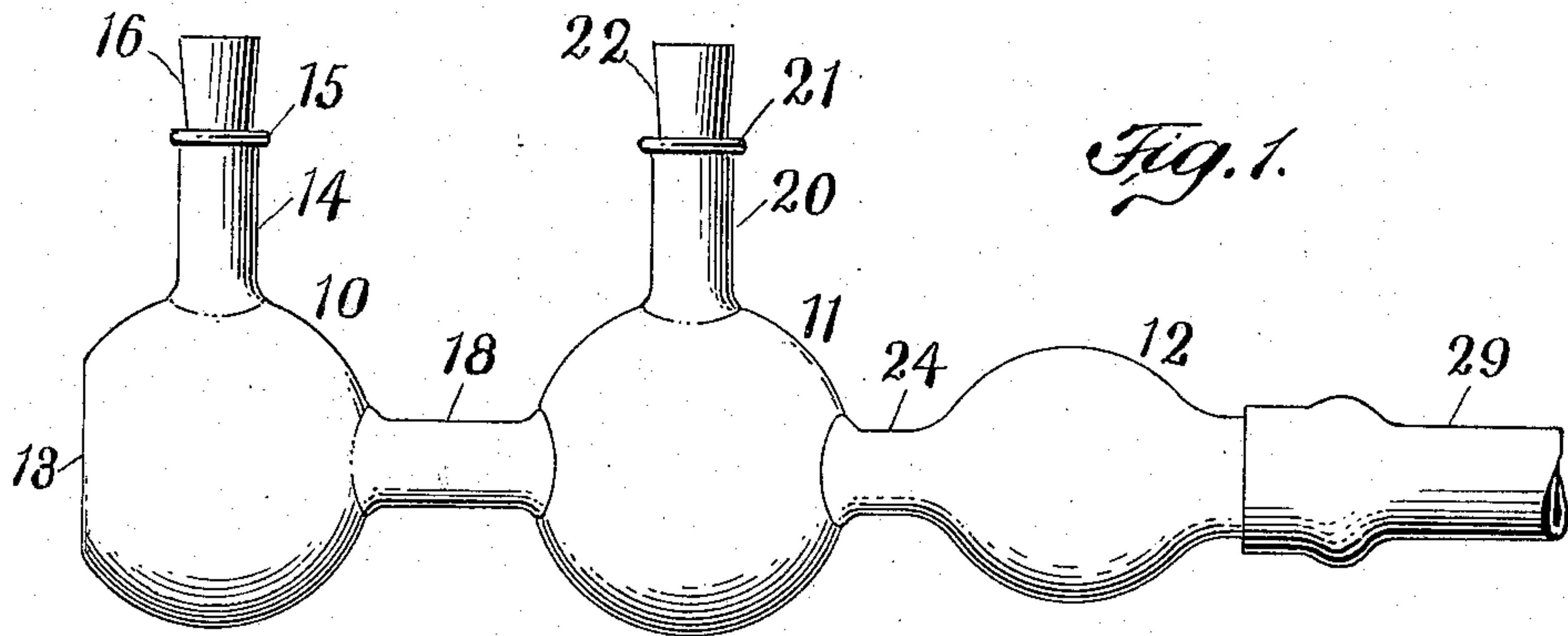


Fig. 1.

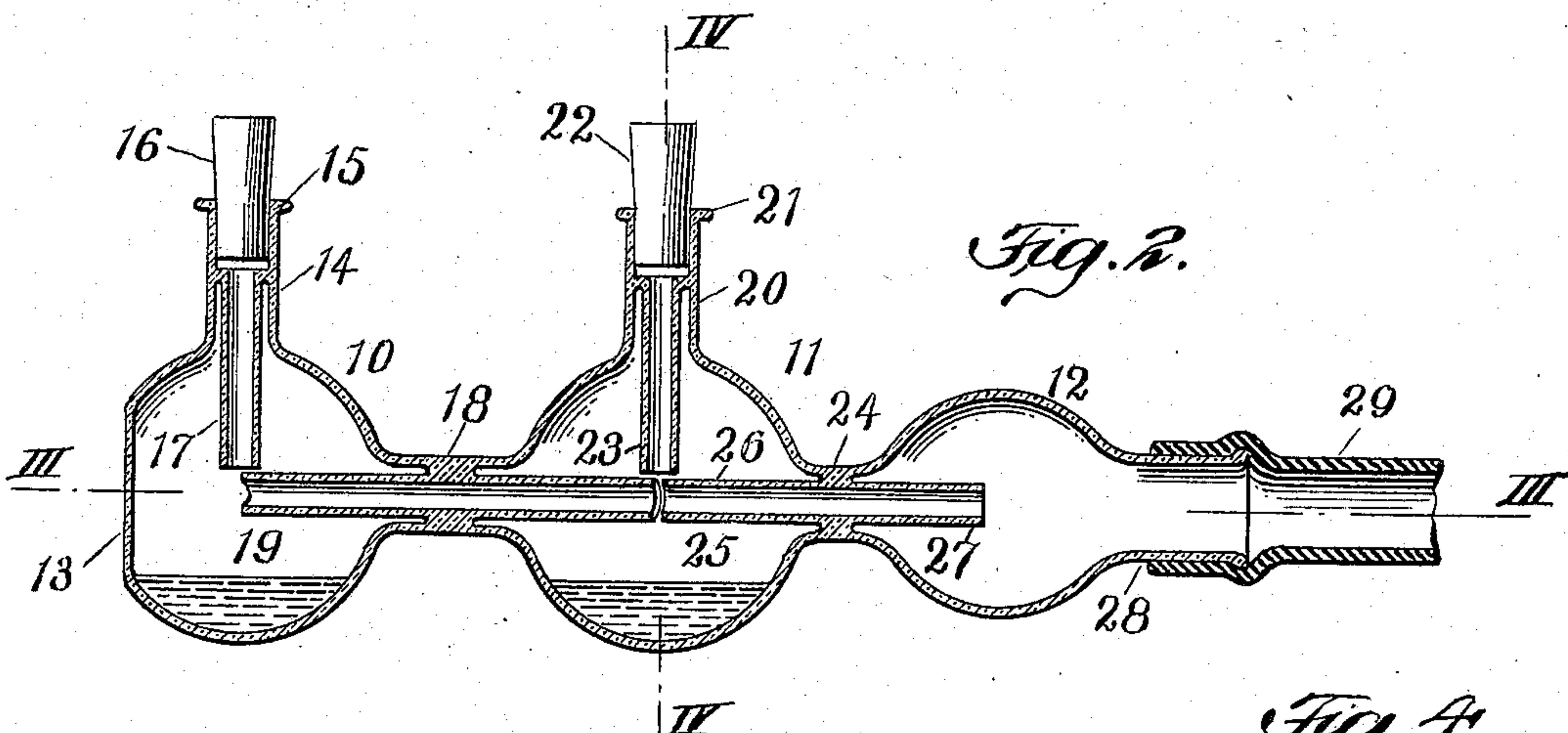


Fig. 2.

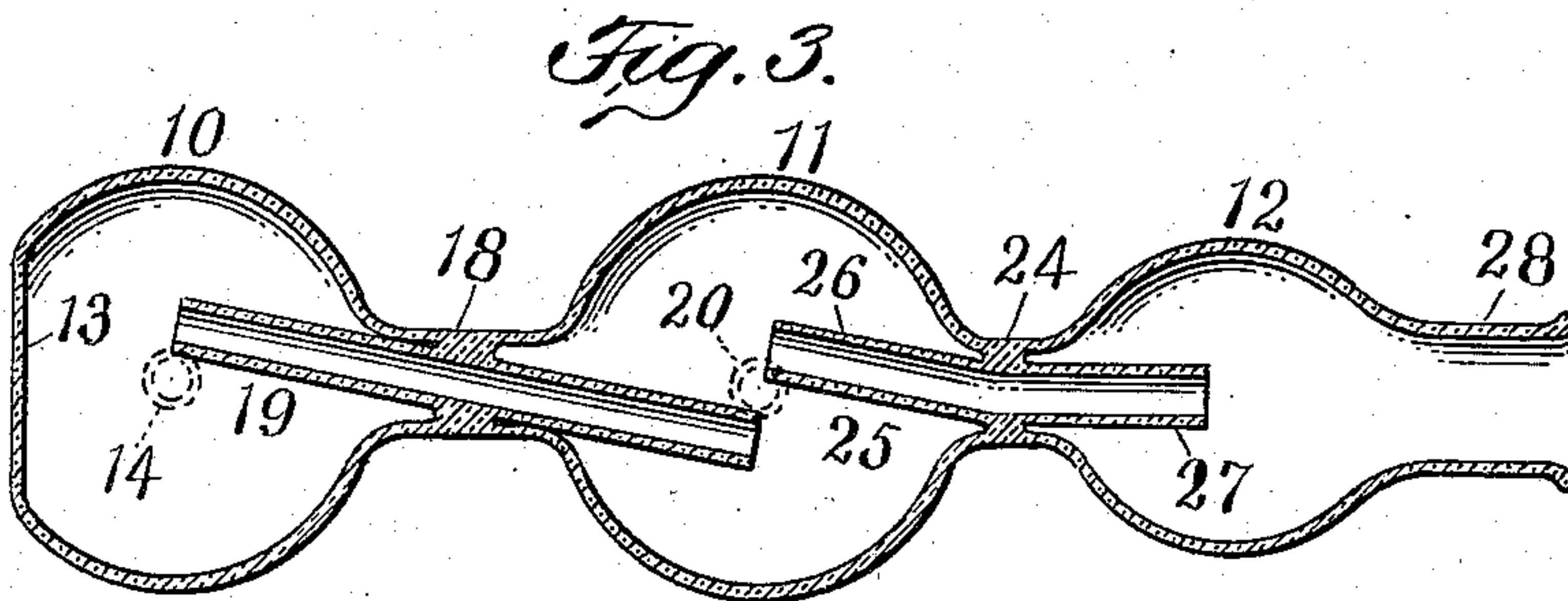


Fig. 3.

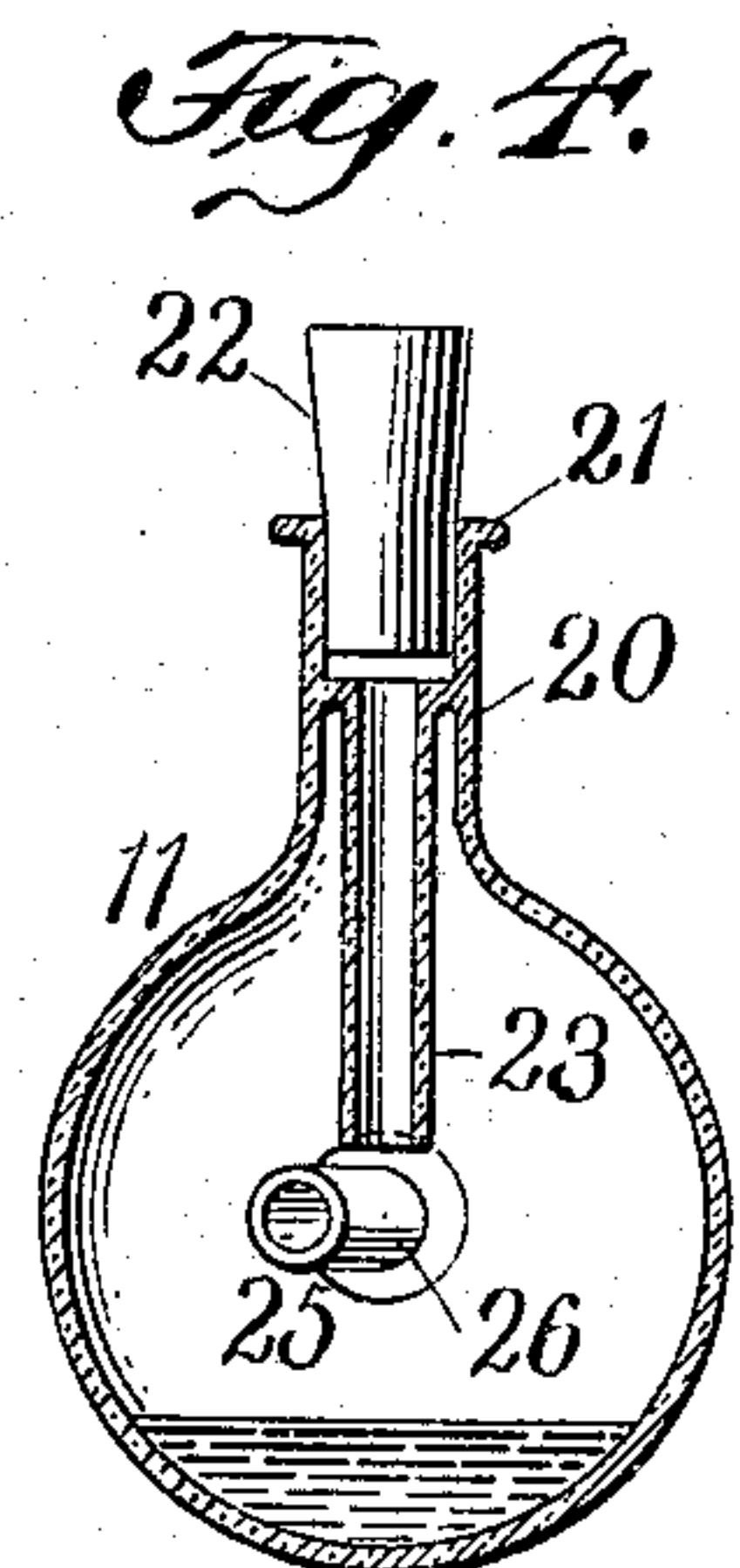


Fig. 4.

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INHALER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HUBERT P. COLLINS, a citizen of the United States, and a resident of East Orange, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Inhalers, of which the following is a full, clear, and exact description.

This invention relates more particularly to an inhaler made of glass; and the main object of the invention is to provide an inhaler having a plurality of receptacles each adapted to hold a different material, as a liquid, and so constructed that no matter in what position the inhaler may be placed the said liquids cannot flow from one receptacle to another nor out of certain of the receptacles.

A further object of the invention is to provide a device which may be readily and cheaply made and which may serve as a means to generate a gas for therapeutic purposes.

With these and other objects in view, the invention will be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification and will then be pointed out in the claims at the end of the description.

In the drawings, Figure 1 is a side elevation of one form of device embodying my invention. Fig. 2 is a longitudinal section of the device. Fig. 3 is a sectional plan taken on the line III—III of Fig. 2; and Fig. 4 is a transverse section taken on the line IV—IV of Fig. 2.

The device may be variously formed and may be made of any suitable material. As shown the device is made of glass and comprises three receptacles 10, 11 and 12, and in the receptacle 10 may be held any suitable material, as hydrochloric acid, in the receptacle 11 water of ammonia or any other liquid or material, while in the receptacle 12 may be held an oil, such as menthol, eucalyptol, wintergreen or any other material.

The receptacle 10 may be substantially spherical and may be provided with a flattened part 13, and projecting outward therefrom is a neck 14 in the mouth 15 of which

may be arranged a suitable stopper 16, and projecting inward from the neck is a tubular stem or member 17 which stops short of the center of the said receptacle. The receptacle 10 is connected to the receptacle 11 by a tubular part 18, and passing through said tubular part is a tubular member 19 of smaller diameter than the part 18 and which is angularly arranged with respect to said part and has its outer ends located adjacent to the center of the chambers within the receptacles 10 and 11 and to one side thereof, though instead of said member 19 being continuous throughout as shown, it may comprise two parts which are adapted to be blown into the part 18. By arranging the member 19 relatively with respect to the part 17 any liquid or material that may be located within the receptacle 10 cannot pass into either of the tubular members 17 or 19 but the fumes or gases from the liquid in the receptacle 10 may pass through the member 19 into the receptacle 11, or air either forced through the tubular part 17 when the stopper 16 is removed or drawn therefrom, may be made to come in contact with the liquid in the receptacle 10 and from there pass into the receptacle 11 to commingle with the gas or fumes of the liquid or material contained in said latter receptacle.

The receptacle 11 may be substantially spherical and projecting outwardly therefrom is a neck 20 in the mouth 21 of which may be arranged a stopper 22 for the admission of air or other gas or material, and projecting inward from the mouth 21 is a smaller tubular member or part 23 which stops short of the center of said receptacle in substantially the same manner as the tubular part or member 17. The receptacle 11 connects with the receptacle 12 by means of a part 24 and projecting from opposite sides of said part is a tubular member 25 which extends into the receptacles 11 and 12. The tubular member 25 has the part 26 located within the receptacle 11 extending on the opposite side of the tubular member 23 from that of the tubular member 19, while the part 27 of said member is arranged substantially centrally of the receptacle 12 and said tubular members are so arranged relatively

with respect to each other within the receptacle 11 that the liquid or other material contained therein cannot pass into any of the tubular members but permits the gas to
 5 pass from the receptacle 10 into the receptacle 11 and from there into the receptacle 12. This receptacle 12 may be of any suitable form and may be smaller than the receptacles 10 and 11, and the forward portion
 10 thereof is provided with a neck 28 to which may be attached an inhaling tube 29 in any preferred way, so that the fumes generated within the inhaler may be drawn through the several receptacles either alone or mixed
 15 with air or gas supplied through the tubular parts 17 and 23.

In the drawings, the tubular members are shown as if formed integral with the receptacles though in constructing the same the
 20 said tubular parts are formed separately and are then blown into the necks or parts of the receptacles according to the usual method of uniting glass, and the tubular members 19 and 25 may each be formed of two parts independently blown into the tubular parts or
 25 connections 18 and 24 instead of in a single piece as shown in the drawings.

From the foregoing it will be seen that a simple and efficient inhaler or similar device
 30 having a plurality of receptacles is provided in which liquids or other material may be held entirely independent of each other, and communication between the receptacles so made that no matter in what position the de-
 35 vice is held the liquid of one receptacle cannot pass out of the same or into the receptacle adjacent thereto; that said device may be cheaply made; and that said device is very effective for the treatment of nasal, throat
 40 and other troubles.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. A device of the character described,
 45 comprising a plurality of receptacles each having a neck projecting outward therefrom and forming an opening in the wall thereof, and a tubular member extending
 50 inwardly and other members serving as a means of communication between the receptacles and to prevent any liquid therein from passing from one receptacle to another.

2. A device of the character described,
 55 comprising a plurality of receptacles each having a neck projecting outward therefrom and forming an opening in the wall thereof, a tubular part connecting said receptacles with each other, tubular members project-
 60 ing inward from the necks of the receptacles to a point substantially adjacent to the center thereof, tubular members extending within the receptacles and angularly arranged with respect to the axial line thereof
 65 and having their ends located at the side

of the members projecting inward from the necks.

3. A device of the character described, comprising a plurality of receptacles, tubular members projecting inward to a point
 70 adjacent to the center thereof and forming an opening in the wall of each of said receptacles, tubular members extending within the receptacles to form communications there between and angularly arranged with
 75 respect to the first-mentioned members and having their ends located to the side of said members.

4. A device of the character described, comprising a plurality of receptacles each
 80 having a neck projecting outward therefrom and connected to each other by means of a tubular part, a member projecting inward from the neck of certain of the receptacles to a point adjacent to the center there-
 85 of, tubular members extending at right angles to the first-mentioned members and forming a communication between said receptacles.

5. A device of the character described,
 90 comprising a plurality of receptacles, each having an opening, a tubular part projecting inwardly from said opening, and a second tubular member angularly arranged with respect to the other member and forming a
 95 communication between said receptacles.

6. A device of the character described, comprising three receptacles connected to-
 100 gether in a series, each of said receptacles being provided with a neck and two of said receptacles having inwardly projecting tubular members extending to substantially the center of each receptacle, a tubular member arranged at substantially right angles to the first-mentioned tubular members and
 105 having its ends projecting into the receptacles and to the side of said first-mentioned members so as to be at an angle with respect to the axial line of the several receptacles and a second tubular member extending
 110 from the intermediate receptacle to the outer receptacle.

7. A device of the character described, comprising a plurality of receptacles con-
 115 nected together side by side, each of said receptacles being provided with a neck, and two of said receptacles having inwardly-projecting tubular members extending from the necks thereof to substantially the center of said receptacles, a tubular member ar-
 120 ranged at substantially right angles to the first-mentioned tubular member and having its ends projecting into two of the receptacles and to the side of the first-mentioned members, and a second tubular member ex-
 125 tending from the intermediate chamber to the outer receptacle, means for closing two of the necks, and a connection to one of the necks.

8. A device of the character described, 130

comprising a plurality of receptacles connected together each provided with an opening, and tubular members extending inwardly from the openings to substantially
5 the center of said receptacles, a tubular member arranged at substantially right angles to the first-mentioned tubular members and having its ends projecting into said receptacles, a second tubular member

extending from one receptacle to another, 10 and means for closing the openings.

This specification signed and witnessed this second day of July A. D. 1908.

HUBERT P. COLLINS.

Witnesses:

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J. A. E. CRISWELL.