(No Model.) 2 Sheets—Sheet 1.

A. F. HENRY.

VAPORIZER.

No. 451,822. Patented May 5, 1891.

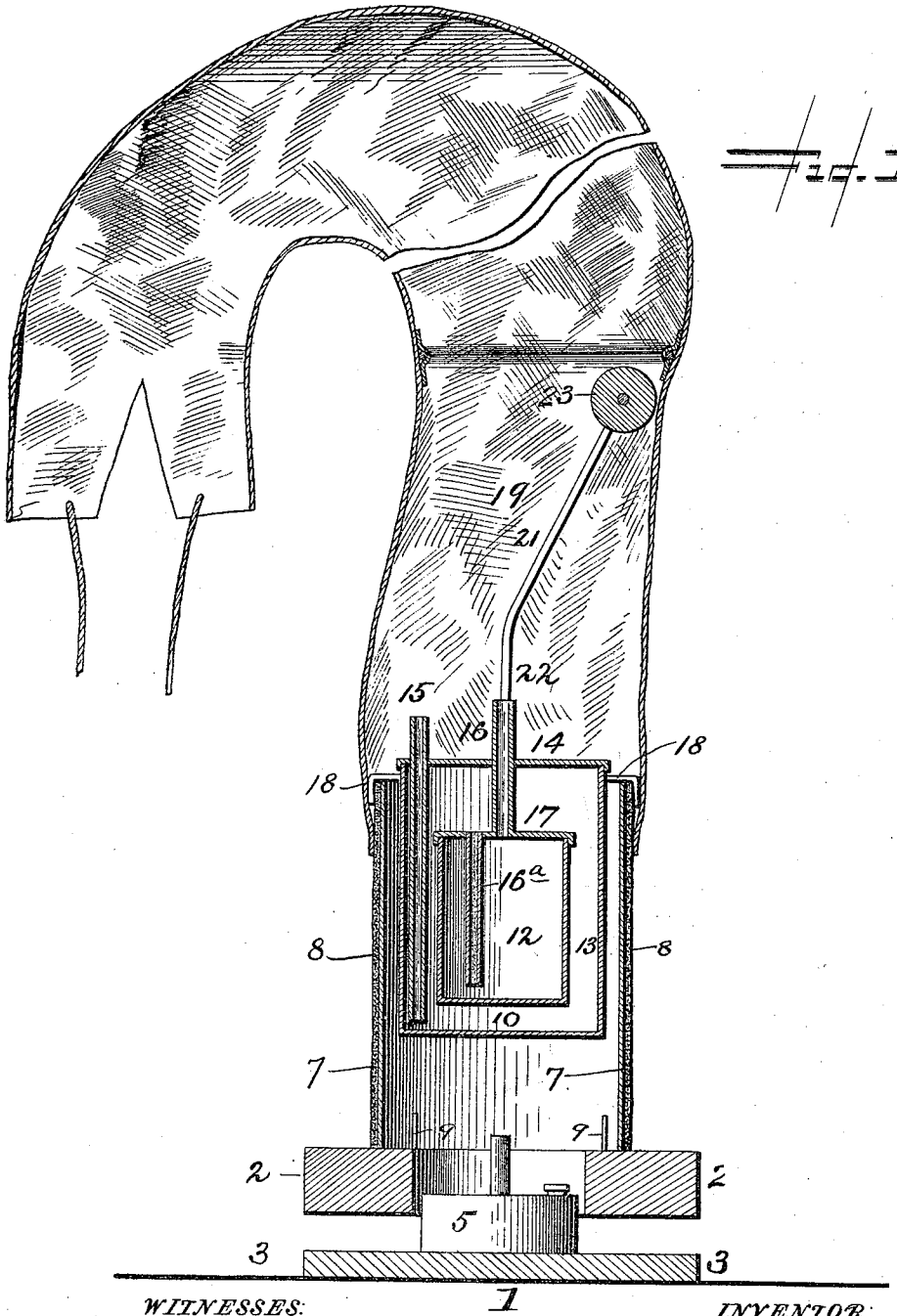


Fig. 1.

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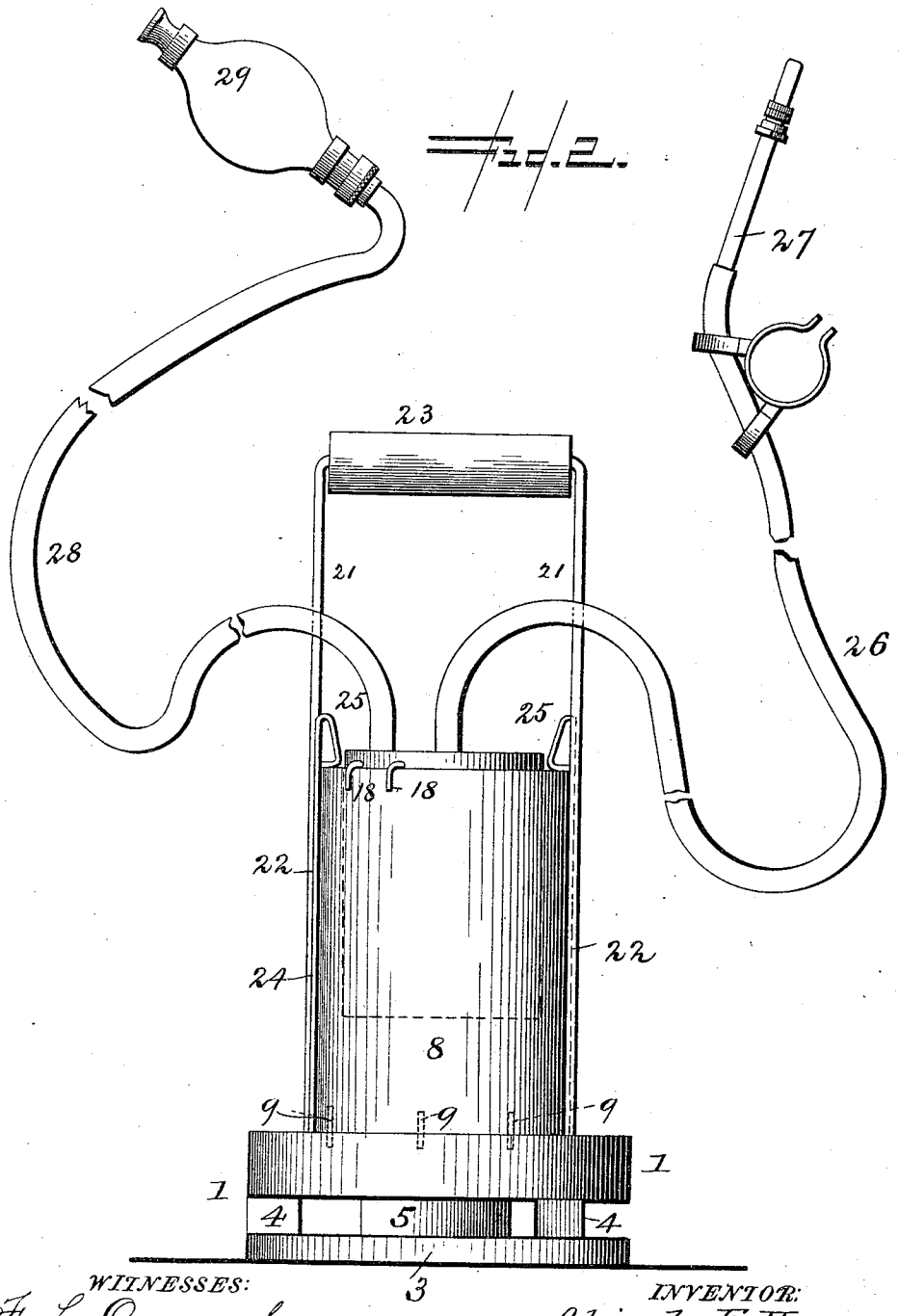
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UNITED STATES PATENT OFFICE.

ABIJAH F. HENRY, OF WINGATE, INDIANA.

VAPORIZER.

SPECIFICATION forming part of Letters Patent No. 451,822, dated May 5, 1891.

Application filed January 26, 1891. Serial No. 379,076. (No model.)

To all whom it may concern:

Be it known that I, ABIJAH F. HENRY, a citizen of the United States, and a resident of Wingate, in the county of Montgomery and State of Indiana, have invented certain new and useful Improvements in Vaporizers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in devices for applying medicines.

As is well known, many forms of diseases, especially of the throat and lungs, are now successfully treated by the vapor of certain medical compounds or preparations. These vapors, to effect the most beneficial results, should be in a hot and moist condition when inhaled or applied to the diseased parts; and the object of my invention, therefore, is to provide an improved device whereby such vapors may be inhaled in a hot and moist condition by a patient.

The invention consists in the novel construction and combination of parts hereinafter fully described, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a central sectional view of a device constructed in accordance with my invention when used as an inhaler. Fig. 2 is an elevation of the same adapted to have the vapors applied direct to the diseased parts.

In the said drawings the reference-numeral 1 designates a heater, consisting of a base, of any suitable material, made in two parts 2 and 3, separated a short distance from each other and connected together by means of block 4, thus forming spaces for the passage of air to support combustion of the lamp or stove 5, which is inserted in a central aperture in the part 2 and supported by the part 3. This aperture is slightly larger than the lamp or stove, so as to allow the air to enter the chamber above, formed by the cylinder 7. This cylinder is made of sheet metal and is provided with a jacket 8, of felt or other suitable material, to prevent radiation of heat. The part 2 is provided with a series of upwardly-projecting spring-wires 9, which are surrounded by the lower end of the cylinder when the latter is in position, whereby it is prevented from lateral displacement.

The numeral 10 designates the vaporizer, comprising an inner and outer vessel marked, respectively, 12 and 13. The outer vessel is provided with a cover or top 14 and has a tube 15 extending to near the bottom of the vessel. It has another tube 16 extending therethrough and through the top or cover 17 of the inner vessel 12, the latter also being provided with a tube 16^a extending from the top thereof to near the bottom and communicating with vessel 13. The periphery of the vessel 13 at its top is provided with a series of hooks 18, which engage with the upper edge of the cylinder 7, so as to suspend the same therein above the lamp or heater.

The numeral 19 designates a hood made of muslin, linen, cotton, or other suitable material, one end of which is connected with the top of the cylinder, while the other end is adapted to be held to the face of the patient, surrounding the mouth and nose, and near the end connected with the heater is provided a wire ring to prevent collapsing of the same.

The numeral 21 designates a bail, consisting of two vertical arms 22 and a hand-hold 23. The lower ends of these arms are secured to the base of the device and are at a distance to receive the cylinder 7 therebetween. They are also provided with spring-hooks consisting of spring-wires 24, secured at their lower ends to said arms and having their upper ends bent over into hooks 25, which engage with the top edge of the cylinder 7 and hold the same in place.

The operation is as follows: The vessel 13 is partly filled with water through the tube 15, and a sufficient quantity of the medical compound is poured into the vessel 12 through tube 16. The vaporizer is then suspended by means of the hooks 18 on vessel 13 within the cylinder 7, the lamp 5 having been previously inserted in place and lighted. The heat from the lamp will cause the water in vessel 13 to boil and the medicine in the vessel 12 to be vaporized. The steam will now pass into vessel 12,

through pipe 16ª, and, mingling with the vapor contained therein, will escape in a hot and moist condition through tube 16 into the hood 19 and be conducted to the mouth and nostrils of the patient for inhalation. In cases where the vapors are to be applied direct to the diseased parts, I remove the hood and apply to the tube 16 a rubber or other flexible hose 26, with a nozzle 27, which is brought into close proximity with the parts to be subjected to the vapors. The tube 15 is provided with a hose 28 and a bulb 29. When to be used it is placed in the heater, as before set forth, the nozzle 27 is applied to the parts to be treated and the steam and vapors forced through the hose and nozzle by pressure upon the air-bulb. The nozzle can also be used for inhaling.

From the above it will be seen that I provide a simple and effective device whereby the vapors of medical compounds are applied in a very efficient manner.

I do not confine myself to any particular description or character of medical compound or preparation to be employed, as it will vary with the nature of the disease to be treated.

By removing the hood and the flexible hose and placing a suitable preparation in the inner or medicine vessel 12, the device may be used for disinfecting purposes. I may also dispense with the heater shown in some cases and vaporize the water and medical compound by subjecting the vaporizer directly to the heat of a gas-flame or by any other means found convenient.

Having thus described my invention, what I claim is—

1. A vaporizer consisting of an outer closed vessel having a tube extending through the top to near the bottom thereof, an inner vessel suspended within said outer vessel, a tube passing through the tops of said vessels, and a tube extending through the top of said inner vessel to near the bottom thereof and communicating with the outer vessel, in combination with a casing within which said vaporizer is suspended, and a heater, substantially as described.

2. The combination, with the heater comprising the base 1, adapted to receive a lamp or stove, and the cylinder 7 connected therewith, of a vaporizer suspended within said cylinder, consisting of the inner and outer closed vessels 12 and 13, the tubes 15, 16, and 16ª, and the hood 19, connected with said cylinder and adapted to be applied to the face of a patient, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

ABIJAH F. HENRY.

Witnesses:
JOSEPH G. GALEY,
JAMES W. CHILCOTE.