

UNITED STATES PATENT OFFICE.

WILLIAM HENRY SPENCER, OF ST. LEONARD'S-ON-SEA, ENGLAND.

VAPORIZER.

SPECIFICATION forming part of Letters Patent No. 472,645, dated April 12, 1892.

Application filed October 29, 1891. Serial No. 410,199. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY SPENCER, a subject of the Queen of Great Britain, and a resident of 11 Warrior Square, St. Leonard's-on-Sea, in the county of Sussex, England, have invented new and useful Improvements in an Improved Vaporizer for Medicinal and Disinfecting Purposes, of which the following is a specification.

My invention relates to an improved vaporizer for medicinal and disinfecting purposes, the object of my improvements being to vaporize eucalyptus and other substances suitable for producing a medicated atmosphere for the treatment of disease or for disinfecting purposes at such temperatures as experience has shown to produce the highest remedial effects. By means of the apparatus hereinafter described the air may be charged with vapor to any desired degree of saturation over extended periods of time, the apparatus requiring no further adjustment after preliminary setting.

I attain my object by means of the apparatus illustrated in the accompanying drawings, in which—

Figure 1 is an elevational view of the complete apparatus. Fig. 2 is a plan. Fig. 3 is a vertical section of spring-socket, candle, and shade. Fig. 4 shows in elevation a vaporizer mounted upon a single rod and fitted with an atmospheric burner. Fig. 5 is an enlarged detail of trigger and ratchet. Fig. 6 is an enlarged sectional view showing air-passages under shade.

1 is a stand, which may be made of wood or metal. Upon this stand is mounted by means of sunk nuts 2, run upon the screwed end 3 of each leg, (see dotted lines, Fig. 1,) the metal frame 4. The metal forming the frame may be of round or rectangular section, and I prefer to mount a ring 5 at its upper part to enable it to be carried about or suspended. Each leg of the metal frame 4 is graded in inches or in an equivalent manner, as shown at 6, and for a distance of, say, nine inches a series of teeth or ratchets 7 are cut upon the sides. A recess 8 is formed in the base of the stand, in which is placed the lamp, night-light, or other source of heat 9. This is covered with a glass shade 10 of any desired color, or

when an atmospheric burner is employed the shade may be dispensed with.

To enable the air to enter freely to the lamp or equivalent source of heat 9, a series of radial grooves 11 are cut beneath the recess 12, upon which the shade 10 sets. (See enlarged view, Fig. 6.)

Mounted upon a metallic ring 13, having two sockets 14, is a metal dish 15, which is partly covered with a perforated rim 16. Within this is fitted a porcelain, glass, or metal basin 17. Upon each socket 14 is pivoted a trigger 18, fitted with a spring 19. The point 20 of each trigger 18 engages with the corresponding ratchet 7 on each leg of the frame 4. (See, also, Fig. 5.) By depressing the triggers 18 the metallic dish 15, with the porcelain, glass, or metal basin 17, may be raised or lowered.

Upon one of the legs of frame 4 is a sliding socket 21, fitted with a semicircular clip 22, which holds a thermometer 23. By means of this clip the thermometer may be held fast when immersed in the fluid or in any other position.

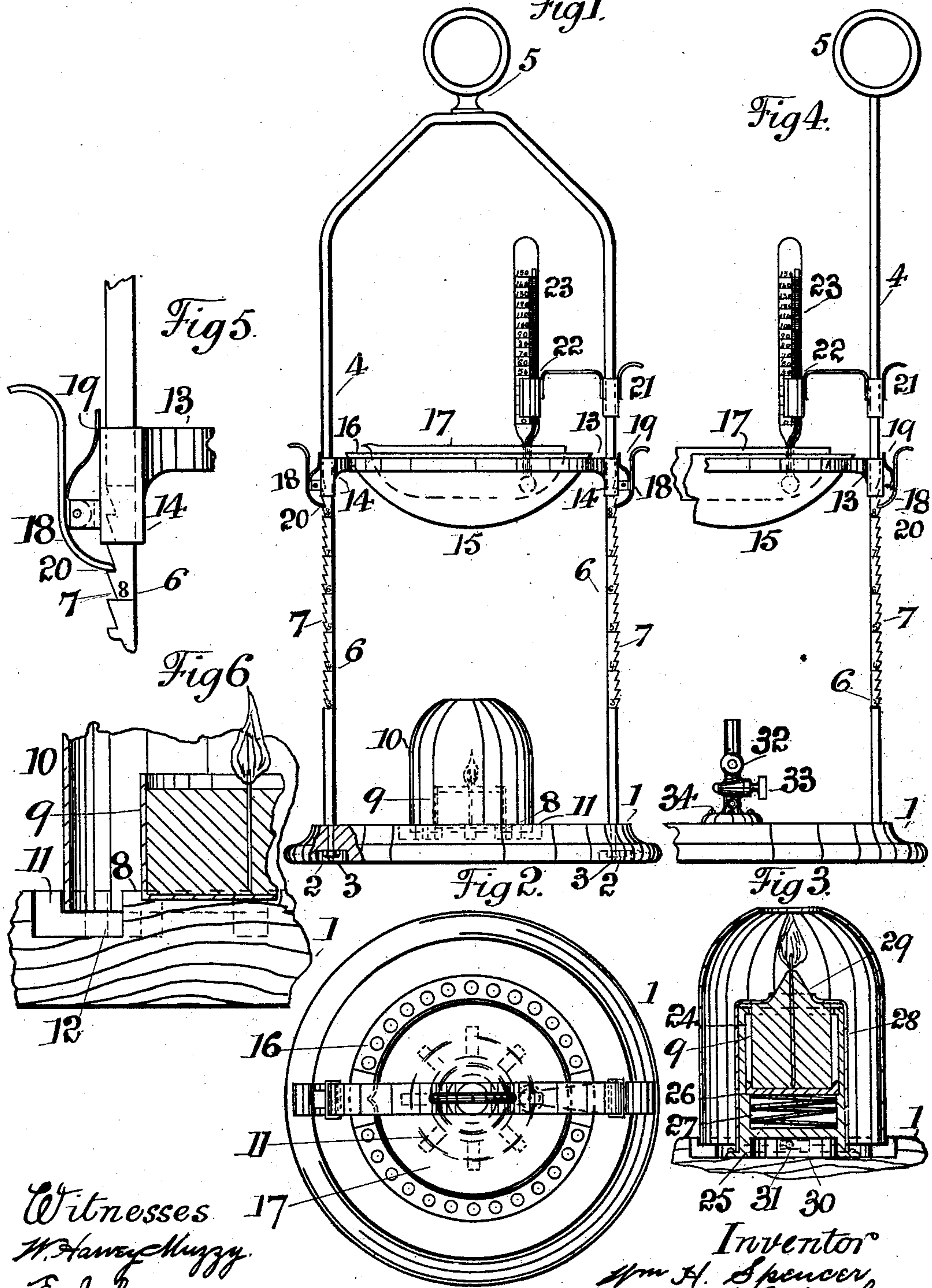
The apparatus is operated as follows: Eucalyptus-oil or the substance employed for producing a medicated atmosphere or for disinfecting purposes is placed in the basin 17. The lamp or other source of heat is lighted and the basin slid down and secured in position above it. The thermometer is now immersed in the fluid in the basin 17. By noting the temperature of most effective vaporization or the degree of vaporization desired and adjusting the metallic dish and its contents so as to maintain this temperature the atmosphere may be saturated to any required degree over prolonged periods, the only attention required by the apparatus being the addition of a little water and fresh material to be vaporized from time to time. Some volatile substances only develop their most beneficial effects when admixed with aqueous vapor. The perforations in the rim of the metal dish 15 enable this to be perfectly effected. I sometimes employ a spring-socket, as shown in Fig. 3. This consists of an inner cylinder 24, having a flange 25 secured by screws to base 1. Within the cylinder 24 is a cup 26, which contains a candle 9. Beneath

(No Model.)

W. H. SPENCER.
VAPORIZER.

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