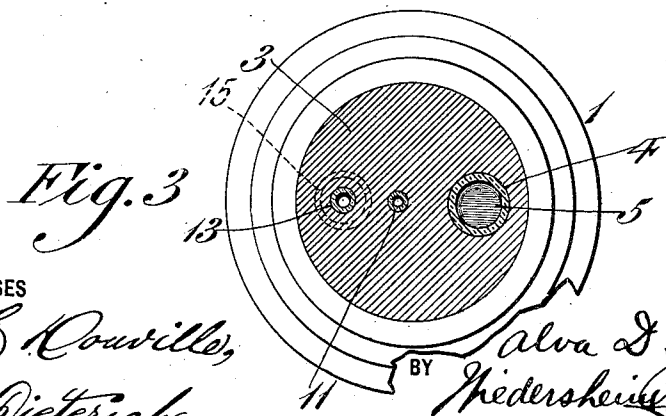
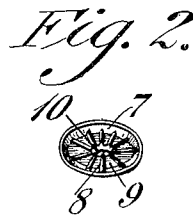
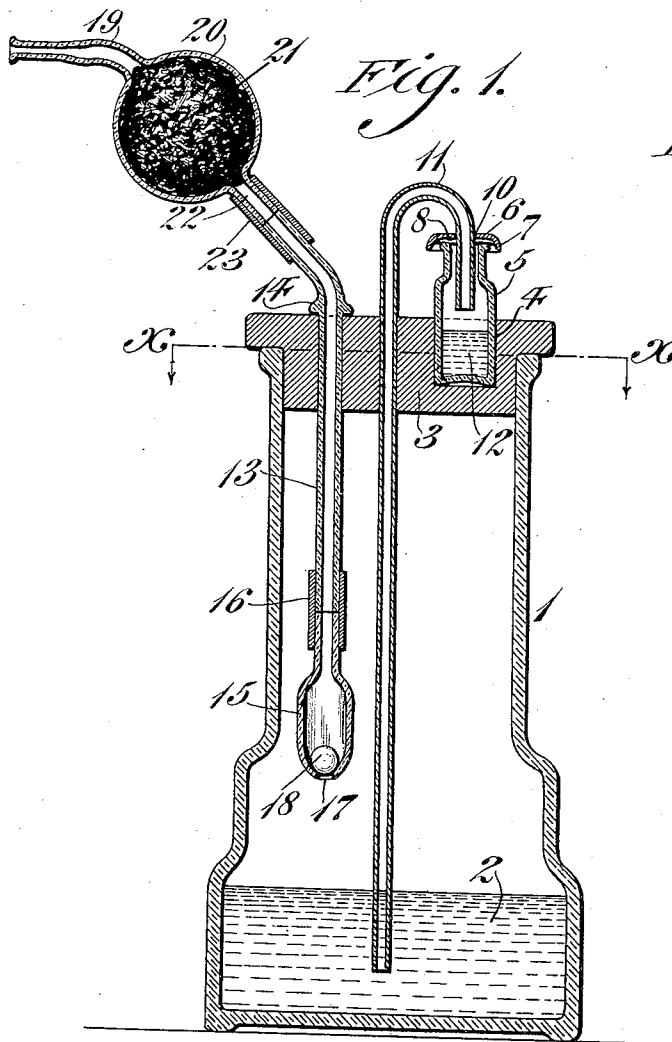


A. D. JONES.
VAPORIZER.

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WITNESSES

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VAPORIZER.

1,065,138.

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To all whom it may concern:

Be it known that I, ALVA D. JONES, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Vaporizer, of which the following is a specification.

My present invention relates to vaporizers such as are adapted to be employed for medicinal purposes and consists of a novel construction of a vaporizer wherein means are provided for preventing an excess amount of material passing to the operator.

It further consists of a novel construction of a vaporizer wherein a novel vial and closure therefor is provided so that in case the operator should cough while using the vaporizer there will be no possibility of the acid or other contents of the vial being forced into contact with the user.

It further consists of a novel construction and arrangement of parts whereby my device may be readily assembled and dismantled.

It further consists of other novel features of construction, all as will be more clearly hereinafter set forth.

For the purpose of illustrating my invention, I have shown in the accompanying drawings one embodiment thereof which is at present preferred by me since the same will give in practice satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein set forth.

Figure 1 represents a sectional elevation of a vaporizer embodying my invention. Fig. 2 represents a perspective view of the underside of the closure for the vial. Fig. 3 represents a sectional plan view on line $x-x$ of Fig. 1.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates a container adapted to receive a liquid 2 which is to be vaporized such as for example, carbolate of tar, although as will be apparent, the nature of this liquid will vary in accordance with the treatment which is to be given.

3 designates a stopper or closure for the

container 1 and this stopper is recessed or chambered as is indicated at 4 in order to receive a vial 5, the upper end of which is provided with a novel construction of a closure 6. The outer edges of the closure 6 are downwardly deflected as is indicated at 7 and the underface of the closure 6 is provided with a desired number of ribs 8, thereby forming a plurality of grooves 9, it being noted that these ribs terminate at a point a slight distance from the center of the closure 6, which latter is apertured as is indicated at 10, in order that a tube 11 may pass through said closure 6 into the vial 5 but terminating above the material 12 contained therein, which latter may be of any desired nature. Assuming that the liquid 2 is carbolate of tar, the liquid 12 in the vial 5 may be chemically pure sulfuric acid, it being of course understood that the liquid 12 will vary according to the treatment which is to be given. The tube 11 passes through the stopper 3 and its lower end extends beneath the surface of the liquid 2.

13 designates a tube also extending through the stopper 3 and provided with a shoulder 14 in order to support the same in said stopper. The lower end of the tube 13 is connected with a valve casing 15 by means of a sleeve 16 of rubber or other desired material. The casing 15 is provided at its lower end with a port 17 controlled by a valve 18 which normally closes said port, and the casing 15 is enlarged in order to provide for the free passage of the fumes around the valve when the latter is in open position. 19 designates the mouth-piece which is provided with an enlarged chamber 20 adapted to receive a sponge 21 and the mouth-piece is also provided with a tube 22 communicating with said chamber 20 and connected with the tube 13 by means of a sleeve 23 constructed of any desired material.

The operation of my novel vaporizer will now be readily apparent to those skilled in the art to which this invention appertains.

Assuming that the liquid 2 has been placed in the container 1 and the acid or the material 12 has been placed in the vial 5, the operator places the mouth-piece 19 in his mouth and inhales thereby causing a suction in the tube 13 and the valve 18 will be raised to uncover the port 17. Owing to the provision of the grooves 9 there will be at-

mospheric pressure on the material 12 in the vial 5, thereby causing the fumes to be withdrawn therefrom through the tube 11 and discharged into the liquid 2 in the container

5 1. The fumes arising from the liquid 2 which has thus been treated will pass through the port 17 and through the tube 13 into the chamber 20 and through the mouth-piece 19 and will be inhaled by the user.
10 The sponge 20 prevents an excess of fumes or vapors being drawn through the mouth-piece 19.

Special attention is directed to the different functions of the closure 6, it being noted
15 that this closure provides for a constant pressure on the liquid in the vial 5, which in the embodiment shown is atmospheric pressure. It sometimes happens that when a
20 person is using a vaporizer of this type he is taken with a spell of coughing which would cause the acid in the vial 5 to be forced from such vial and if the closure 6 was not deflected in the manner indicated or equivalent means employed, this acid would
25 injure the user of the atomizer. In my novel construction, however, if the condition just explained should arise, the acid would be deflected downwardly so that there is no possibility of the user of a vaporizer becoming
30 burned or otherwise affected by the acid. When the suction ceases in the tube 13 the valve 18 will close the port 17 as is apparent

and prevent any of the vapors or fumes passing to the mouth-piece 19.

The construction is such that the different 35 parts may be readily dismantled when desired.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:— 40

1. In a vaporizer, a container, a stopper therefor, a vial carried by said stopper, a closure for said vial having its outer edges downwardly deflected, and provided with
45 grooves on its under face, a tube extending through said closure and into the liquid in said container, and a mouth-piece in communication with said container.

2. In a vaporizer, a container, a stopper therefor, provided with a chamber, a vial 50 seated in said chamber, a closure for said vial, having ribs on its under face and its outer edges downwardly deflected, a tube extending into said vial and into the liquid in said container, a valve controlled casing 55 in said container and out of engagement with the liquid therein, a mouth-piece communicating with said casing and provided with a chamber, and a sponge in the chamber of said mouth-piece.

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Witnesses:

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