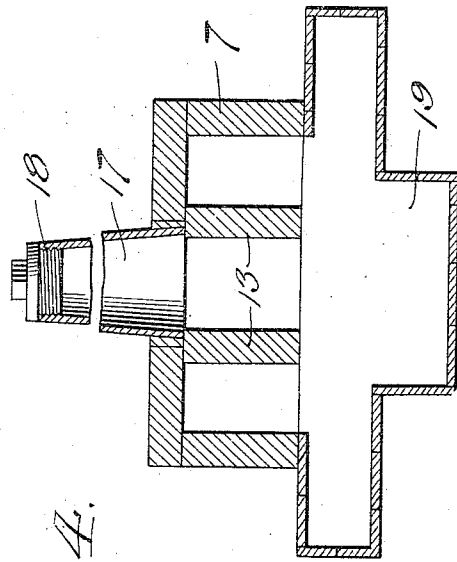
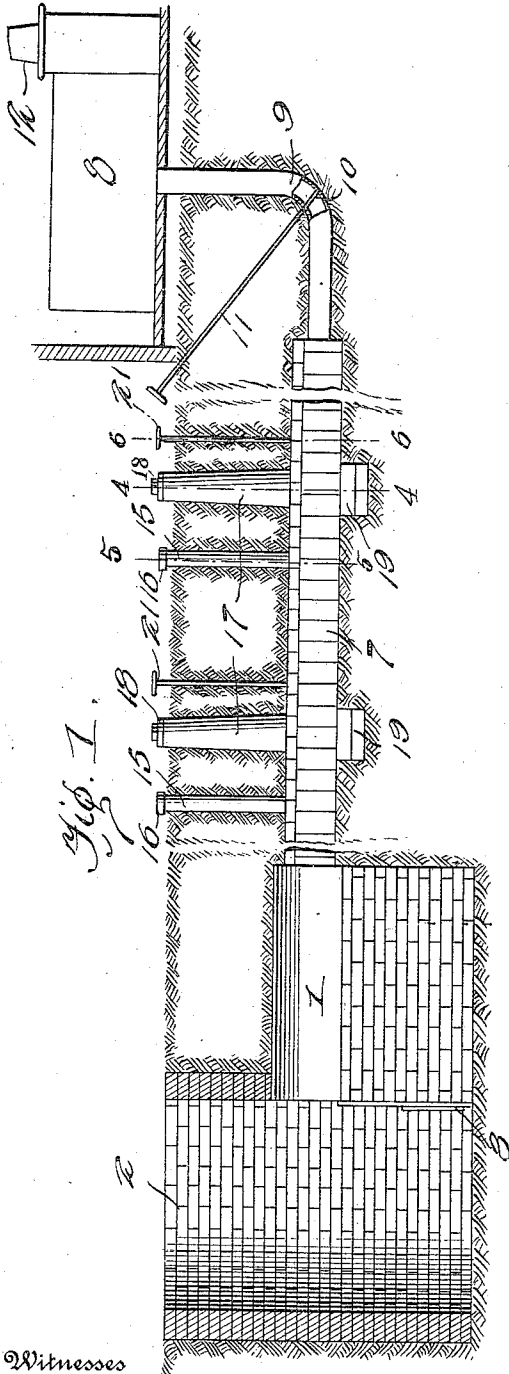


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 VAPOR OR GAS GENERATING APPARATUS.
 APPLICATION FILED MAY 18, 1910.

986,202.

Patented Mar. 7, 1911.

3 SHEETS—SHEET 1.



Witnesses

Hugh Helt.

C. C. Hines.

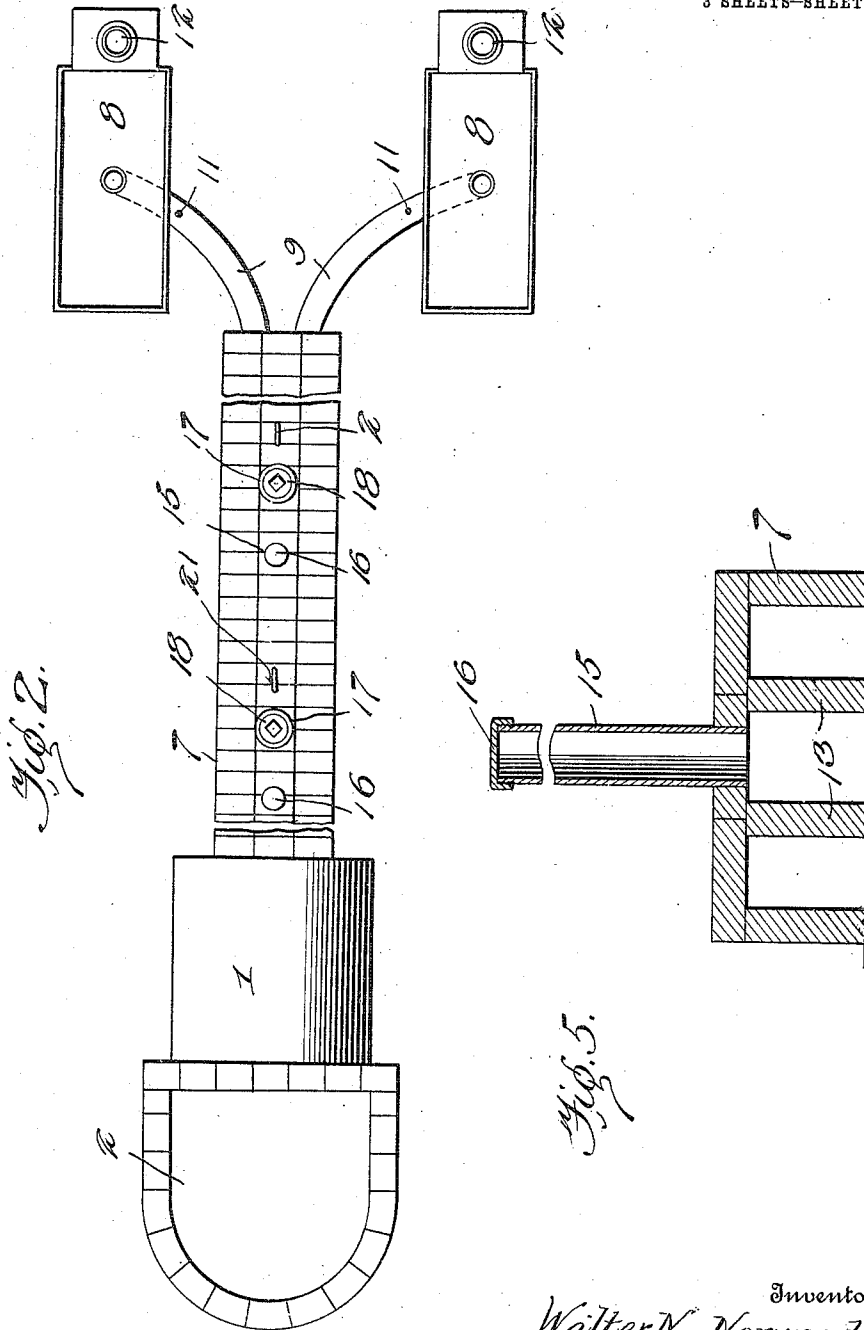
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3 SHEETS—SHEET 2.



Witnesses

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3 SHEETS—SHEET 3.

Fig. 3.

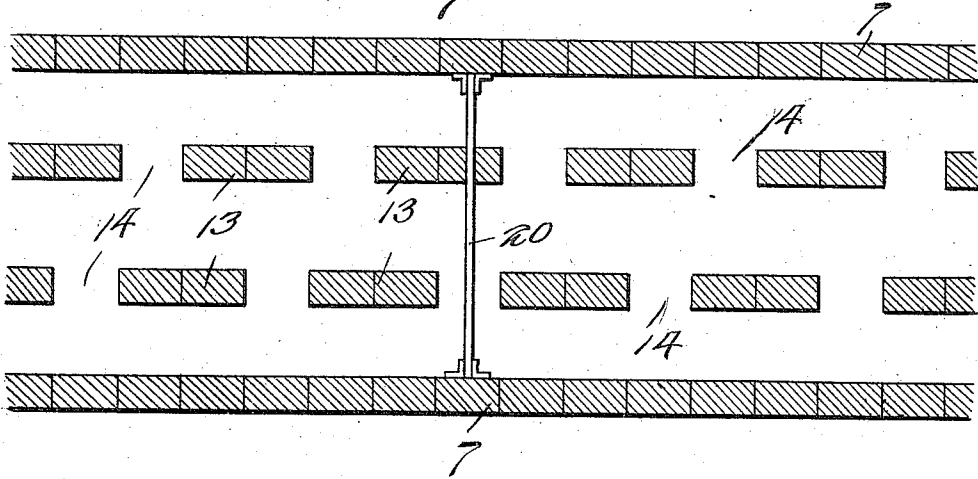


Fig. 6.

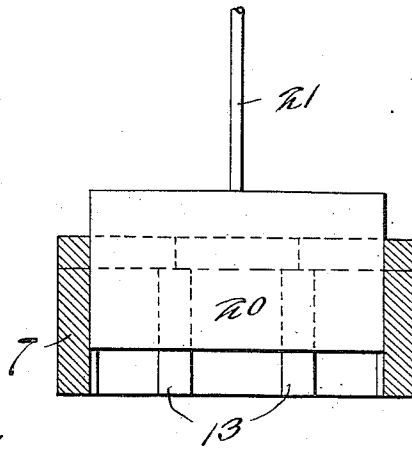
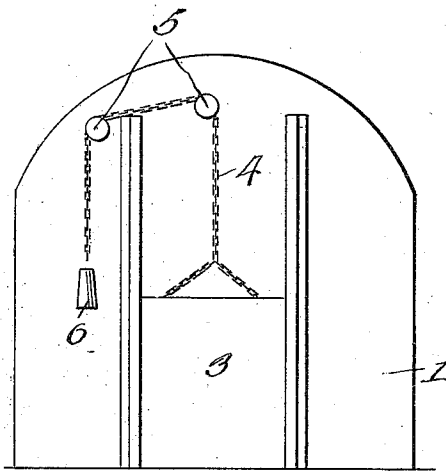


Fig. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

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VAPOR OR GAS GENERATING APPARATUS.

986,202.

Specification of Letters Patent.

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Application filed May 18, 1910. Serial No. 562,049.

To all whom it may concern:

Be it known that I, WALTER N. NORWOOD, a citizen of the United States, residing at San Antonio, in the county of Bexar and State of Texas, have invented new and useful Improvements in Vapor or Gas Generating Apparatus, of which the following is a specification.

This invention relates to an apparatus for generating vapor and gases from the air, earth, wood and other substances, for the treatment of internal and external diseases, the object of the invention being to provide a simple, reliable, effective and economical apparatus whereby medical vapors or gases of various kinds may be rapidly and conveniently generated and used in the treatment and cure of various internal and external disorders or diseases of the human system and prevention of contagious and infectious diseases.

The invention consists of the features of construction, combination and arrangement of devices, hereinafter fully described and claimed, reference being had to the accompanying drawings, in which:—

Figure 1 is a view in side elevation of a vapor or gas generating apparatus embodying my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical longitudinal section through the apparatus. Figs. 4, 5 and 6 are cross sectional views, taken on the lines 4—4, 5—5 and 6—6 of Fig. 3. Fig. 7 is a front elevation of the furnace or heater.

Referring to the drawings, 1 designates a suitable furnace for the vaporization and generation of gases from wood and other suitable material, said furnace embodying any essential internal construction for burning or otherwise subjecting the material to the action of heat for the liberation of the gases or vapors therefrom. In practice, the furnace is embedded in the earth with its front only exposed, a suitable pit 2 being formed in the ground to expose the front of the furnace and permit access thereto, which pit may be omitted when the furnace is arranged upon a hill or slope through the surface of which the front thereof may project. As shown, the furnace front is provided with an opening for the insertion of the material to be treated and the removal of the residue after treatment, as well as the inlet of air

to support combustion. This opening is controlled by a vertically sliding door 3 movable in suitable guideways and suspended from a rope or cord 4 passing over suitable pulleys 5 and having attached thereto a pendent weight 6 which balances the weight of the door. By pulling down upon the weight, the door may be elevated and sustained in any desired position. Upon raising the weight the opened door will close by gravity, as will be readily understood.

Leading from the outlet of the furnace and extending therefrom to the point of use of the vapors or gases is an underground flue 7, said flue being shown in the present instance as communicating at its delivery end with a pair of treatment boxes or cabinets 8 through upwardly extending branches 9 each provided with a controlling valve 10, having a stem 11 extending upwardly through the ground to the surface so that the valve may be manipulated to open and close either branch as desired for regulating the supply of the gas or vapor to either one or both cabinets. Each cabinet consists of a box-like structure open at the top and provided at one end with an upwardly extending exhaust flue or pipe 12 for the escape of the vapors under certain conditions after use, the branch 9 forming the inlet to said cabinet opening through the bottom thereof at any suitable point along its length. The cabinets are arranged within a house or suitable inclosure at a desired distance from the furnace 1.

The flue 7 extends through a primarily formed ditch and is covered with earth up to the ground level and preferably inclines at a suitable angle from its inlet to its delivery end to facilitate the flow of the vapors or gases. This flue is formed of side and top walls of porous brick or tiling and is open at the bottom, so that the vapor or gas on its flow therethrough will extract from the earthen base and through the porous walls of the flue the moisture and medicinal properties of the salts of the earth on its passage. The flue is separated into a plurality of channels by vertical partitions or division walls 13 which are interrupted or provided with communicating ports 14 at spaced intervals so that the streams of gas or vapor flowing through the several chan-

nels will pass from one to the other and thus become thoroughly commingled on their travel through the flue to the cabinets. The flue is provided at one or more points along its length with a medicament supply pipe or inlet 15 extending upwardly therefrom to a point above the surface of the earth and through which any desired liquid or solid medicament from which it is desired to generate a gas or vapor to commingle with the vapor from the furnace may be introduced, such medicament being converted into vapor by the heat of the vapor from the furnace. This pipe 15 is provided with any suitable type of closure 16, and may also be employed for admitting air to the flue to commingle with the vapor when such a combination is deemed desirable. Also communicating with the flue are one or more chimneys or outlets 17 for the escape of the noxious gases and products of combustion initially generated in the furnace, each of which chimneys or outlets is provided with a suitable closure 18. Below each chimney the flue is deepened and laterally extended, as at 19, to provide a pocket or reservoir into which medicinal substances which are to be converted into gas or vapors to commingle with those of the furnace may be introduced, thus allowing different kinds or compositions of vapors to be generated and commingled, according to the nature of the disorder or disease to be treated.

Beyond each chimney 17 the flue is provided with a valve or damper 20 provided with a controlling handle or stem 21 extending through the earth to the surface, whereby the valve or damper may be adjusted to regulate the speed of flow of the vapor or gas through the flue. Each valve or damper shown may also be completely closed for the purpose of preventing the noxious vapors and products of combustion initially generated by the furnace from passing through the flue to the cabinets and for causing them to discharge through the chimney and medicament inlet associated therewith, allowing all the noxious substances to quickly discharge. As soon as these substances discharge and the generation of an innocuous medicinal vapor begins, the outlets 15 and 17 are closed and the dampers 20 opened for the supply of the vapors or gases to the cabinets, it being apparent that the cabinets may be independently or simultaneously supplied with vapor, as occasion may demand.

As a general rule, the vapors or gases generated by this system are heavier than the air and coming into the cabinet at the bottom spread or settle over the bottom first and then gradually fill the cabinet to the top and will roll down upon the outer sides thereof to the floor and evaporate into the atmosphere. In treating patients affected

with disorders of the air passages, or where it is desired to introduce the gases or vapor into the lungs for their general therapeutic effect, the top of the box may be left open and the patient allowed to bend over the same to inhale the gases or vapors. In treating external disorders, the patient may sit or recline in the open box, and a cover to close the open top of the box may be provided and have an opening through which the head of the patient may project to allow him to breathe the external natural atmospheric air. In the use of this cover the vapors will fill the box up to the line thereof and all excess vapor will discharge through the flue 12.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of use of my invention will be readily understood, and it will be seen that it provides an apparatus which may be arranged any desired distance from the cabinet so that the vapors flowing to the latter will absorb all the natural medicinal properties from the surrounding earth, become thoroughly commingled, relieved of impurities and sufficiently cooled before entering the cabinet.

The apparatus may be employed for the generation of vapors to be used in the prevention of disease as well as in the treatment of various disorders.

Having thus described the invention, I claim:—

1. A gas or vapor producing apparatus comprising a generator, a receptacle for the gas or vapor, and an underground conducting flue connecting said generator and receptacle, said flue being porous for communication with the surrounding soil to extract the moisture and medicinal substances therefrom.

2. A gas or vapor producing apparatus comprising a generating furnace, a receptacle for the gas or vapor, and an underground conducting flue leading from said furnace to said receptacle and comprising a channel open at the bottom and having porous side and top walls.

3. A gas or vapor producing apparatus comprising a generating furnace, a receptacle for the gas or vapor, and an underground conducting flue leading from the said furnace to said receptacle, said flue comprising a channel open at the bottom and having porous side and top walls, the interior of said flue being divided into a plurality of passages by partitions having communicating ports therein.

4. A gas or vapor producing apparatus comprising a generating furnace, a receptacle for the gas or vapor, a porous underground flue leading from the furnace to the receptacle, and means for introducing medicament from the surface into said flue.

5 5. A gas or vapor producing apparatus comprising a generating furnace, a receptacle for the gas or vapor, a porous underground flue leading from the furnace to the receptacle, means for introducing medication from the surface into said flue, a chimney leading upward from the flue, and a valve or damper in the flue for closing the

flue beyond said chimney and deflecting the products thereto.

In testimony whereof I affix my signature in presence of two witnesses.

WALTER NATHANIEL NORWOOD.

Witnesses:

JNO. D. WATSON,

BASIL M. HATFIELD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
