

No. 667,487.

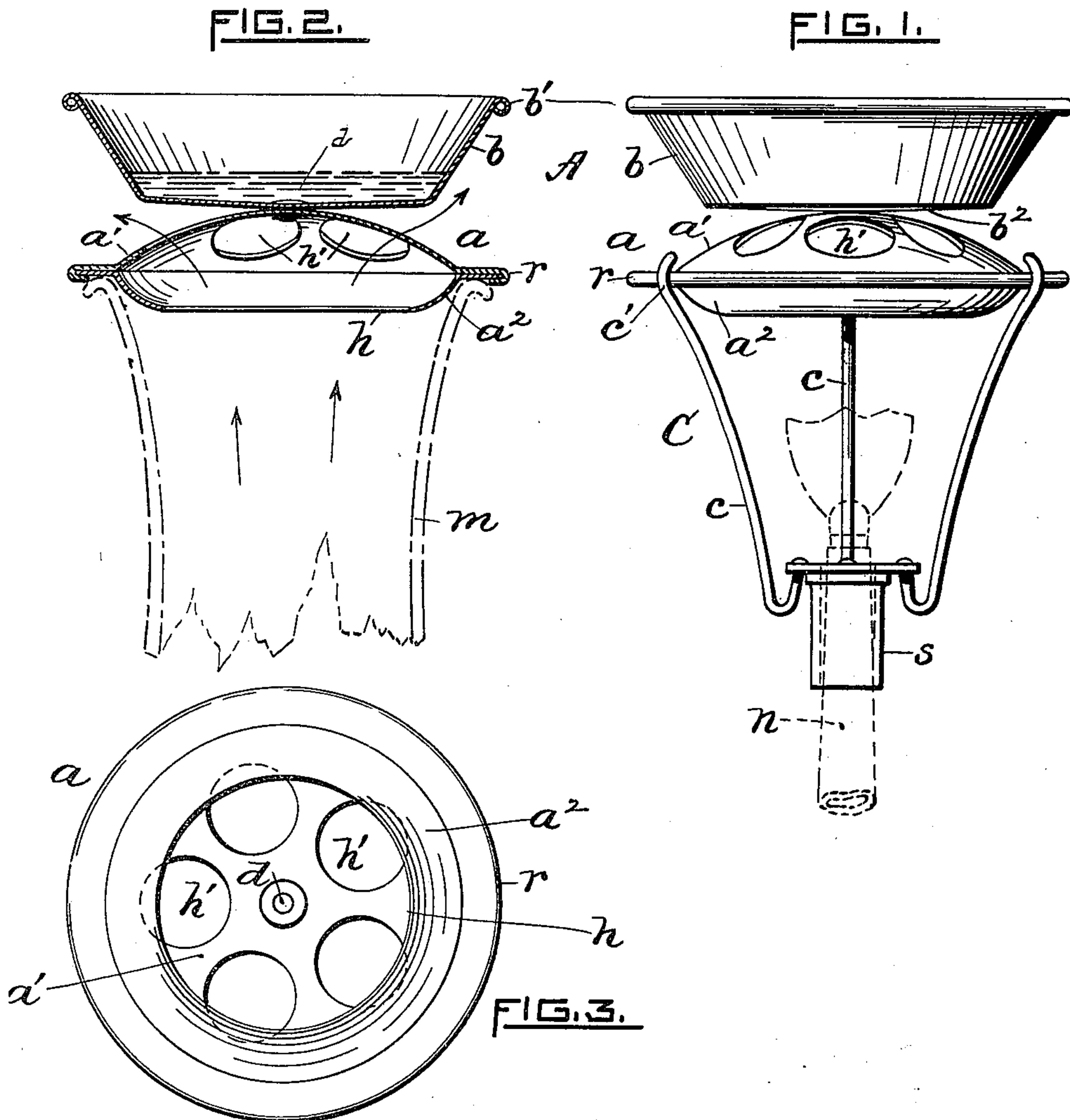
Patented Feb. 5, 1901.

F. P. BOLAND.

VAPORIZER.

(Application filed Mar. 23, 1900.)

(No Model.)



WITNESSES.

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UNITED STATES PATENT OFFICE.

FRANK P. BOLAND, OF PROVIDENCE, RHODE ISLAND.

VAPORIZER.

SPECIFICATION forming part of Letters Patent No. 667,487, dated February 5, 1901.

Application filed March 23, 1900. Serial No. 9,896. (No model.)

To all whom it may concern:

Be it known that I, FRANK P. BOLAND, a citizen of the United States of America, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Vaporizers, of which the following is a specification.

My invention relates to improvements in "vaporizers," so called—that is to say, apparatus adapted for the formation of vapors by the application of artificial heat—the class of vaporizers forming the subject of the present invention being that wherein suitable medicinal compounds or compositions are converted into vapor.

The object I have in view is to produce at a minimum of cost a vaporizer possessing a greater degree of efficiency than other devices of the class referred to, the apparatus at the same time being adapted to be readily and quickly brought into use when required.

Persons afflicted with colds, coughs, asthma, catarrh, as well as other diseases, may be completely cured or at least greatly benefited by inhaling the vapors generated in my improved vaporizer.

The device may be further employed for disinfecting and deodorizing rooms.

The vaporizer hereinafter described and claimed consists, essentially, of a centrally-chambered base having large openings formed in its two walls or sides communicating with said chamber and a vessel or holder secured centrally to the top of the said base member, constructed and arranged whereby upon placing the device upon or over a lighted lamp or gas-jet the heat rising therefrom passes through the chambered base and is diffused against the bottom of the vessel or pan containing the fluid or medical compound, the latter in turn being vaporized thereby.

My improved vaporizer is so constructed that the apertured base portion not only serves to support the liquid-holding vessel, but it is further adapted to rest directly on top of the glass chimney of an ordinary lamp, or in case it is more convenient to effect the vaporization of the liquid by means of a gas-jet the device is provided with a removable holder or clip having its lower portion ar-

ranged to receive and be supported by the gas-burner, the upper or opposite portion having yielding arms, the free ends of which are suitably bent and adapted to receive the outer rim of the apertured base, all as more fully hereinafter set forth and claimed.

In the accompanying sheet of drawings, Figure 1 is a side elevation of my improved vaporizer as adapted to be used on a gas-burner. Fig. 2 is a transverse central sectional view of the device. In this view the vaporizer is represented as resting on top of an ordinary glass chimney. Fig. 3 is an inverted or bottom plan view.

A, again referring to the drawings, designates my improved vaporizer as a whole, the same being made of tin or other suitable sheet metal. The vessel proper or shallow pan member *b* is round and has well-beveled sides terminating at the top in a rounded edge or rim *b'*. The bottom *b²* of the vessel I prefer to make slightly beveled or depressed, as clearly shown. The chambered base *a* is also round. It consists of the vertically-separated upper and lower sides or members *a'* *a²*, having the outer edge portions thereof flattened, the extreme part of the upper member being bent around and in snug engagement with the corresponding portion of the lower side *a²*, as shown, thereby firmly securing the parts together. The lower side *a²* is provided with the large central opening *h*, the other member *a'* having a series of holes *h'* formed there-through. The vessel or holder *b* is secured centrally to the base by means of a rivet *d* or other suitable device.

As shown in Fig. 2, the vaporizer is arranged to rest directly upon and be supported by a lamp-chimney *m*, (indicated by broken lines.) The convex or beveled form of the lower side *a²* serves not only to centralize or quickly adjust the vaporizer with respect to the chimney, but also to maintain the device in position when in use, so that the heat from the flame of the lamp is diffused uniformly through the several base-openings (see arrows) and deflected against the vessel *b*.

In order that the vaporizer may be heated by a gas-jet, I employ the holder or clip *C*, the same having a flanged sleeve *s* at its lower end arranged to receive and be sup-

ported by a common gas-burner *n*. (See dotted lines.) To the said sleeve are secured a series of upwardly-extending spring-arms *c*, the free ends of which are bent to receive the
 5 outer rim *r* of the chambered base *a*. The clip is readily detachable from the vaporizer and when in use maintains the latter in position relatively to the gas-jet, as shown.

My improved vaporizer, as hereinbefore
 10 stated, is very efficient, comparatively inexpensive, and easily and quickly adjusted for use.

I am well aware that devices or apparatus for converting medical compounds or compositions into vapor by means of artificial heat
 15 have been produced prior to my present invention. Therefore I do not claim such vaporizers broadly; but

What I do claim is—

The vaporizer A, hereinbefore described, 20
 consisting of the round chambered base member *a*, composed of upper and lower oppositely-arranged apertured sides or walls *a'* *a''*, respectively, having their outer peripheral portions flattened and united together to form 25
 a supporting rim or flange *r*, and the open vessel *b* resting upon and rigidly secured to the center of the upper side *a'* of said base, substantially as shown and set forth.

Signed by me at Providence, Rhode Island, 30
 this 20th day of March, A. D. 1900.

FRANK P. BOLAND.

Witnesses:

GEO. H. REMINGTON,
 JAS. F. THAYER.