(No Model.)

F. C. HAWKES.

VAPORIZER.

No. 496,481. Patented May 2, 1893.

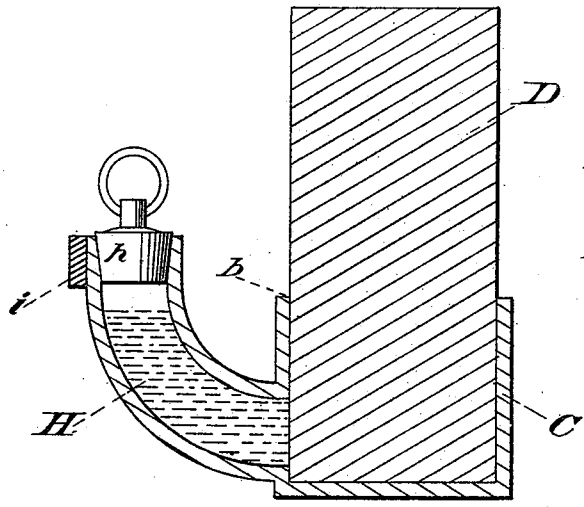


Fig III,

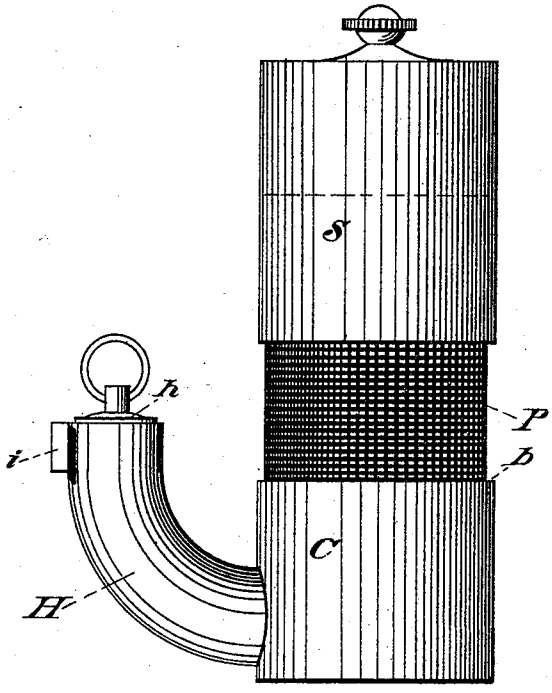
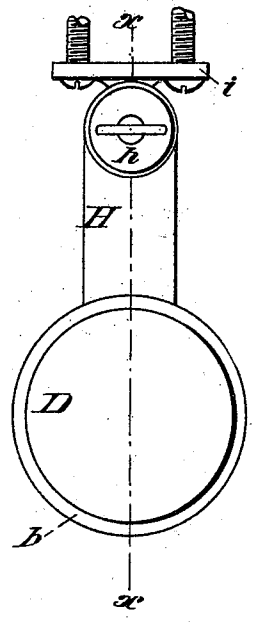


Fig I,

Fig II,



WITNESSES:

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FRED. C. HAWKES, OF SPRINGFIELD, MASSACHUSETTS.

VAPORIZER.

SPECIFICATION forming part of Letters Patent No. 496,481, dated May 2, 1893.

Application filed June 7, 1892. Serial No. 435,835. (No model.)

To all whom it may concern:

Be it known that I, FRED. C. HAWKES, a citizen of the United States, residing at Springfield, county of Hampden, and State of Massachusetts, have invented a new and useful Improvement in Vaporizers, of which the following is a specification.

This invention belongs to the class of apparatus designed to contain a volatile fluid which will be given off by evaporation, and may be used to hold disinfectants such as carbolic acid or chloride of lime, moth preventives such as spirits of camphor, or perfumery; and the invention consists in the combination and construction as hereinafter described and more particularly pointed out in the claims.

My invention is fully illustrated in the accompanying drawings, in which—

Figure I is a complete side elevation; Fig. II, a top plan view, and Fig. III, a vertical section upon the dotted line *x x* of Fig. II.

Referring to the drawings, C is a base in the form of a cup into which is securely fitted a plug of absorbing material D, to project above its seat in the cup, and leave a shoulder *b* around it formed by the rim of the cup. Opening into the bottom of the cup C, and integral therewith, is a reservoir H, in the shape of a spout having means for closing its upper open end; in the drawings a stopper *h* is shown as a convenient way of tightly sealing the mouth of the spout; as it may be ground into its seat.

As a material for forming the plug D, I prefer plaster, as from its nature, it may be cast in a mold prolonged from the cup seat, so that when the plaster sets and the mold is removed the plaster swelling while solidifying, firmly binds itself in the cup; it also will absorb to the point of saturation without parting with any of its contents by dripping.

When the stopper *h* is removed, the reservoir H can be filled with the volatile fluid, as indicated by the broken lines in Fig. III, which having free access to the plug D, is by the plug absorbed and drawn up to its portion above the cup C, where it is given off by evaporation.

The device will rest securely upon the bottom of the cup as a base; but I also provide it with a bracket piece *i*, by means of which it can be suspended from the side of a wall or other vertical surface.

When the device is suspended where clothing or other fabrics could come in contact with it, as for instance, in a clothes press, charged with camphor, to drive away moths; the saturated plug might rub off upon any thing in contact with it. To guard against this I fit over the plug D, a perforated cover P, which while preventing all direct contact with the plug, permits evaporation to go on freely and continuously. In the drawings, a wire gauze is shown as being well adapted to that end. Also to have the evaporation within control, I fit over the cover P, a close cover S, which may be in the form, as shown, of a sleeve held in place by friction upon the cover P wherever it may be slid to, either to entirely expose the sides of the perforated cover P, or to entirely cover them and rest upon the shoulder *b* of the cup C.

In Fig. I, the cover S is shown arranged to expose only a part of cover P, and so permit only a limited evaporation.

The cup C, plug D, and the two covers may be of any corresponding shape in cross-section, though for convenience I prefer a cylindrical form as illustrated.

Now having described my invention, what I claim as new is—

1. The improved vaporizer comprising a combined fluid holding reservoir and plug seating socket with a base common to them both, the reservoir in the form of a tube lying along side of the socket with its lower end open to the interior of the socket and with means for closing its upper end or mouth—and a solid plug of absorbent material seated in the socket to fill the same, having one end projecting above the socket and its other end closing the reservoir within the socket.

2. In vaporizers, the combination of a fluid holding reservoir and plug holding socket in one piece, the reservoir lying along the side of the socket, communicating with its interior and, provided with a stopper for its mouth, a solid plug of plaster seated in the socket to fill the same, having one end projecting above the socket and the other end closing the lower end of the reservoir—and a perforated cover fitted to the portion of the plug projecting above the socket.

FRED. C. HAWKES.

Witnesses:
R. F. HYDE,
R. H. COLLINS.