(No Model.)

G. L. McQUIGG.

INHALER.

No. 418,813. Patented Jan. 7, 1890.

Fig. 1.

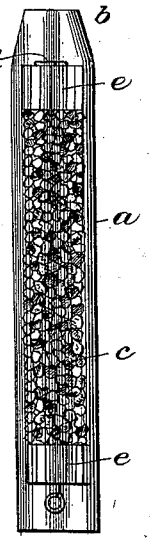


Fig. 2.

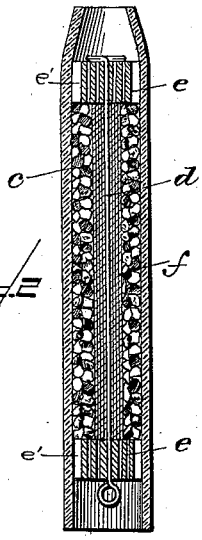


Fig. 3.

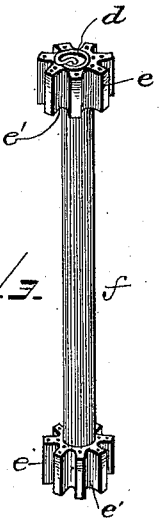


Fig. 4.

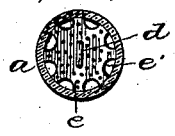
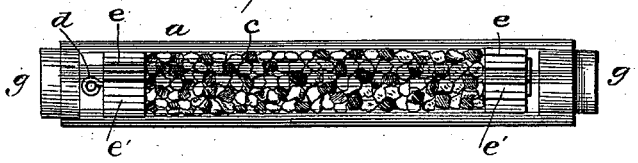


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE L. McQUIGG, OF FLINT, MICHIGAN, ASSIGNOR OF ONE-HALF TO FRANK DULLAM, OF SAME PLACE.

INHALER.

SPECIFICATION forming part of Letters Patent No. 418,813, dated January 7, 1890.

Application filed June 1, 1889. Serial No. 312,868. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. McQUIGG, a citizen of the United States, residing at Flint, in the county of Genesee and State of Michigan, have invented a certain new and useful Improvement in Inhalers, of which the following is a full, clear, and exact description.

This invention relates to that class of inhalers which are adapted to be carried upon the person, and which are usually composed of a glass tube provided with an internal absorbent material to receive and hold the substance to be inhaled.

The invention consists of a tubular inhaler provided with an absorbent core made, by preference, of asbestus and secured to a wire and between two fibrous heads, the core being by preference surrounded by a filling of copper and zinc granules.

In the accompanying drawings, in the several figures of which like parts are similarly designated, Figure 1 is an elevation; Fig. 2, a vertical section; Fig. 3, a perspective view of the core and fibrous heads detached; Fig. 4, a sectional end view, and Fig. 5 an elevation of a modification.

The tube *a* is made of glass, and by preference one end is made tapering, as at *b*, in order to concentrate the fumes or vapors.

f is a core made of suitable bibulous material, stiffened by a wire *d* and arranged between fibrous heads *e*, the said wire being anchored in or upon the said heads, and thereby serving to hold and keep the core and heads together. Between the core and the interior of the tube is a filling *c*, composed of granules of copper and zinc.

The core *f* is by preference made of a sheet of asbestus bent about the wire, and I prefer the asbestus because of its indestructibility, also because of its superior absorbent qualities, also because of its property of retaining the matter to be inhaled, and also because of its retaining its original form and size—that is to say, because of its quality of not swelling or expanding upon absorbing liquid.

The heads *e* are made of fibrous material—such as rattan—in order to permit the free passage of air or vapor; and to further facilitate such passage the rims of the said heads may be provided with cavities *e'*.

As shown in the modification, Fig. 5, the walls of the tube may be made parallel; and, as also shown in said modification, corks *g* may be provided to close the ends of the tube to prevent evaporation.

The wire *d* may be omitted in some cases; but in that event the heads *e e* should be made to fit the tube quite tight.

The filling *c* of metallic granules not only adds to the appearance of the inhaler, but in addition it supports the liquid to be inhaled in a free state.

Other filling *c* may be used than the metallic granules. Furthermore, a filling may be omitted altogether.

Instead of a tube of glass, any other substance or material may be employed in the construction of the outer tube.

What I claim is—

1. An inhaler composed of a glass tube, a bibulous core arranged therein, fibrous heads arranged at each end of said core and provided with cavities *e'* in their rims, and a filling surrounding the core between its heads, substantially as described.

2. An inhaler composed of an external tube, a bibulous core, fibrous heads at each end of said core, a wire passing through the heads and core and connecting them, and an external filling surrounding the core, substantially as described.

3. In an inhaler, a tube, a bibulous core composed of asbestus, and fibrous heads secured to the ends of said core, substantially as described.

4. An inhaler composed of an external tube, a core of sheet asbestus, fibrous heads arranged at each end of the core, and a wire connecting said heads and about which wire the asbestus is wound, substantially as described.

5. An inhaler composed of a glass tube, a bibulous core, heads at each end of said core, and a filling surrounding the said core, substantially as described.

In testimony whereof I have hereunto set my hand this 15th day of May, A. D. 1889.

GEORGE L. McQUIGG.

Witnesses:

WILLIAM DULLAM,

E. R. CORKINGHAM.