

(No Model.)

H. H. SHELDON.
VAPOR RETORT BURNER.

No. 254,711.

Patented Mar. 7, 1882.

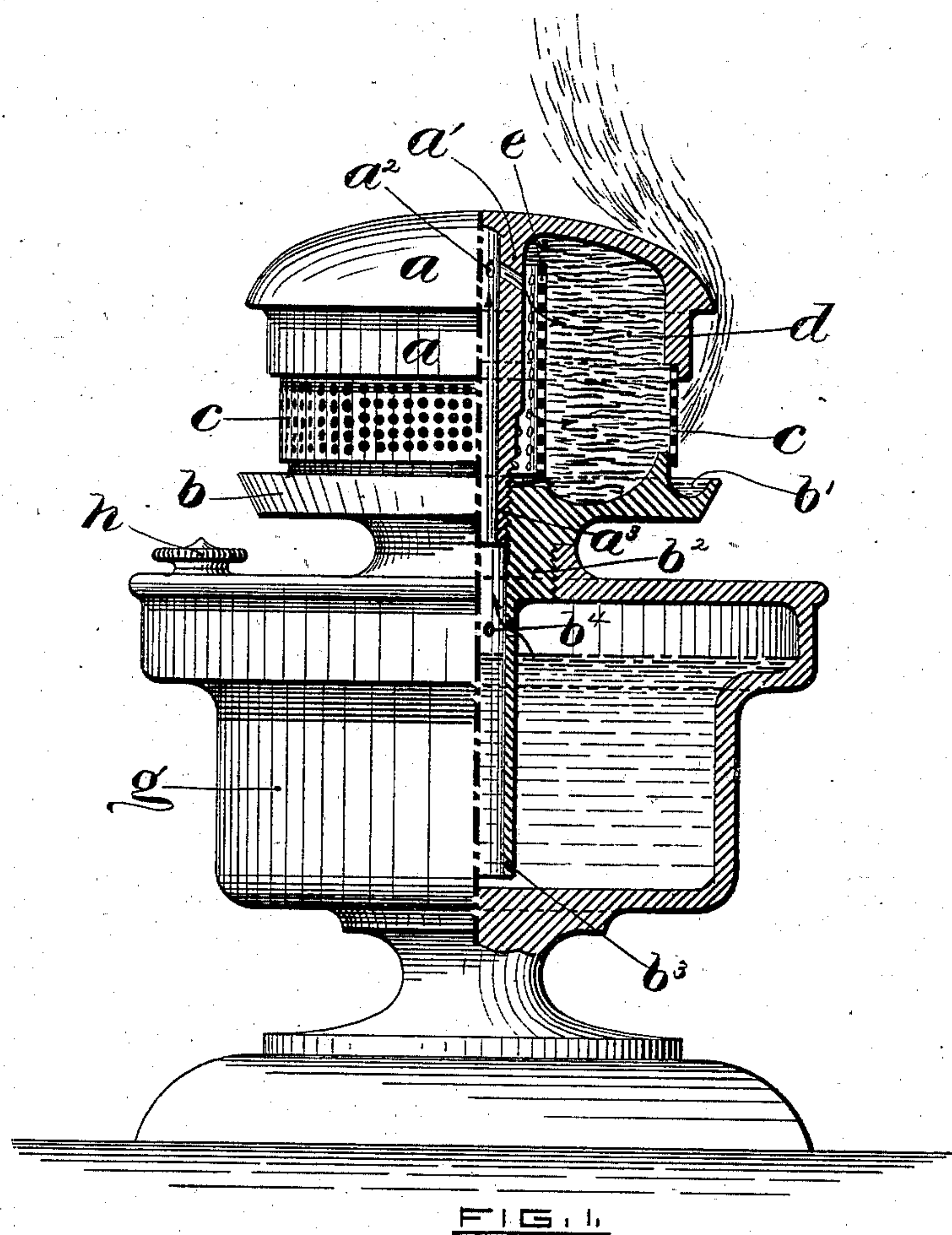


FIG. 1.

WITNESSES:

Charles Hannigan,
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INVENTOR:

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UNITED STATES PATENT OFFICE.

HENRY H. SHELDON, OF PAWTUCKET, RHODE ISLAND.

VAPOR-RETORT BURNER.

SPECIFICATION forming part of Letters Patent No. 254,711, dated March 7, 1882.

Application filed January 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. SHELDON, a citizen of the United States, residing at Pawtucket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Vapor - Retort Burners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters or figures of reference marked thereon, which forms a part of this specification.

My invention relates to an improved apparatus for producing and burning the vapor from alcohol or other volatile and inflammable oils or liquids, and is intended for heating rather than for illuminating purposes.

Said invention consists of a retort adapted to contain an amount of saturated asbestos, the former being properly perforated to allow the vapor to escape.

The accompanying drawing represents a perspective view of my invention, partly in section and full size.

The retort consists of four principal parts—viz., the convex-shaped top piece, *a*, provided with a central downwardly-projecting stem, *a'*, which is made hollow; second, the cup-like base *b*, provided also with a downwardly-projecting tube or stem, *b'*, which extends nearly to the bottom of the reservoir *g*; third, the perforated tube or guard *e*, loosely fitting the stem *a'*, and designed to protect the latter from the asbestos packing *d*; fourth, the perforated ring *c*, designed to confine the asbestos, and allow the burning vapor to escape.

g represents the reservoir, to the top center of which, at *b'*, is screwed the retort-burner.

The retort is charged or packed with loose asbestos *d*, as shown. The central hollow stem, *a'*, conducts the heat from the top of the retort down into and through the center of

the asbestos to the liquid, and it connects with the base *b* at *a'*, and is perforated at *a'* to allow the vapor from the alcohol to escape into the asbestos. The tube *b'*, by being connected with the stem *a'*, conducts the heat to and vaporizes the alcohol in the reservoir, which vapor escapes through the perforations *b'* into the stem *a'*. The base *b* has a trough, *b'*, around its outer edge, which serves to hold a small quantity of alcohol.

The operation of my invention is as follows: First fill the reservoir at *n* and saturate the asbestos, (preferably with alcohol,) filling the trough *b'* also with the same. Upon igniting the latter the retort soon becomes heated until the alcohol is converted into vapor, which escaping through the holes *b'* *a'* and perforated tube *e* and ring *c*, ignites and continues to burn until the alcohol in the reservoir is entirely consumed, thereby producing an intense heat, which may be used for culinary or other purposes.

The filling, (asbestos,) being incombustible, can be repeatedly saturated without destroying its utility.

I claim as my invention—

1. In combination with the reservoir *g*, the vapor-retort burner herein described, consisting of the top *a*, provided with a downwardly-projecting hollow stem, *a'*, base *b*, having a tube, *b'*, perforated guard *e*, and perforated ring *c*, all substantially as and for the purpose set forth.

2. In combination with the top *a*, base *b*, guard *e*, and ring *c*, the asbestos packing *d*, all substantially as described, and for the purpose set forth.

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

HENRY H. SHELDON.

Witnesses:

CHARLES HANNIGAN,
GEO. H. REMINGTON.