

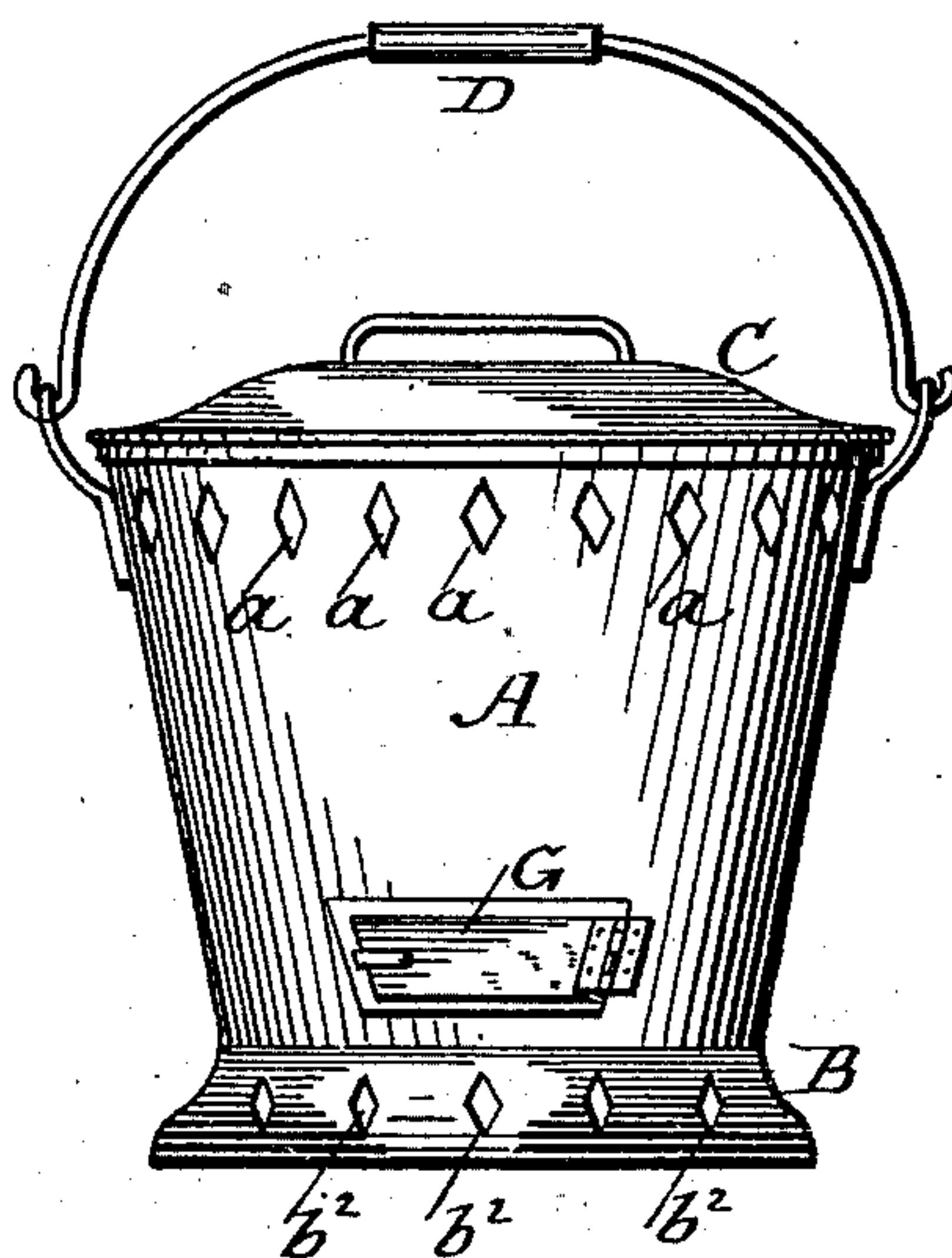
(No Model.)

C. H. SCHRACK.  
PLUMBER'S PORTABLE FURNACE.

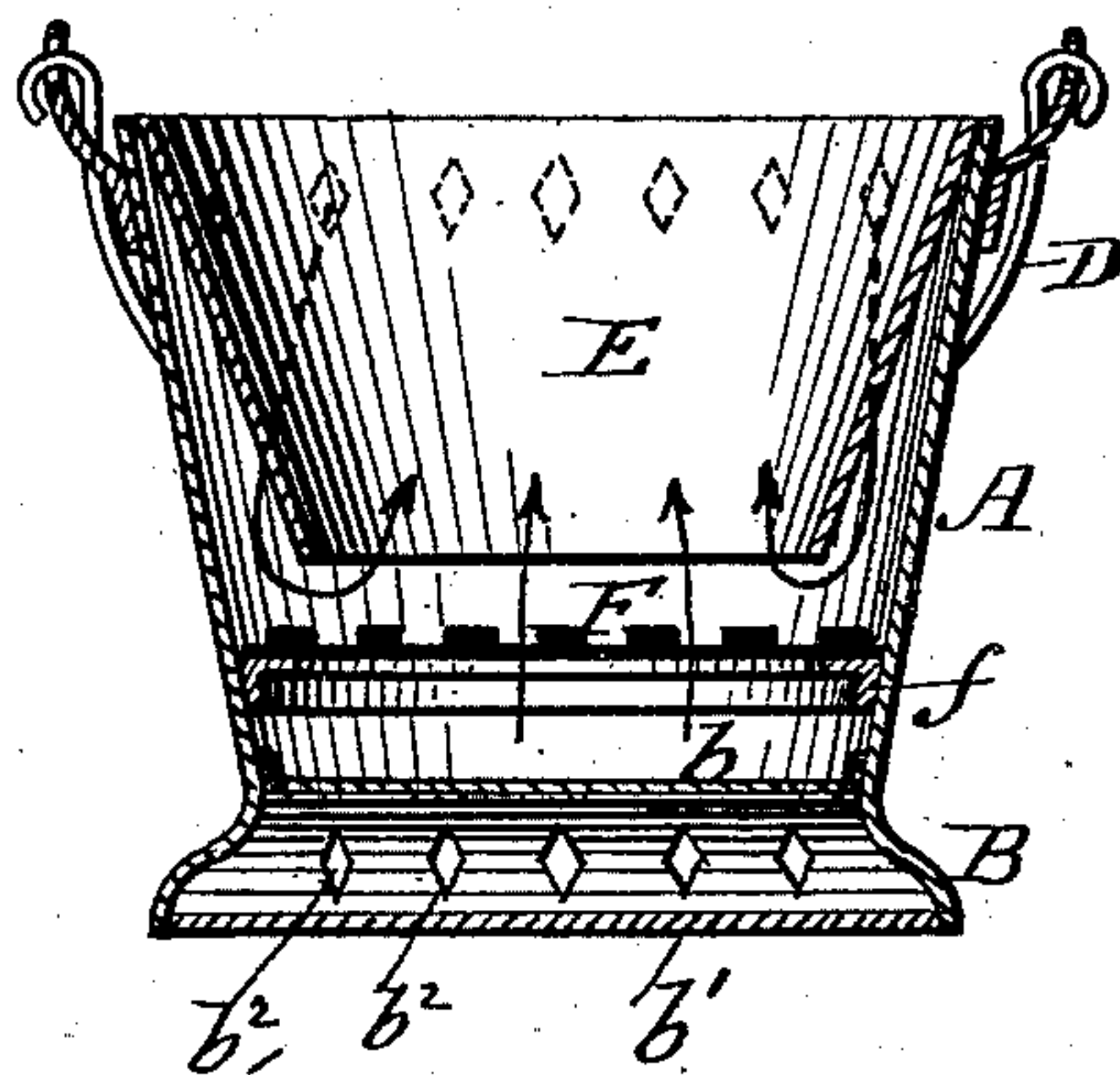
No. 280,245.

Patented June 26, 1883.

*Fig. 1.*



*Fig. 2.*



Witnesses:  
L. C. Hills  
J. H. Paine

Inventor:  
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Att'y.

# UNITED STATES PATENT OFFICE.

CHRISTIAN H. SCHRACK, OF NEW YORK, N. Y.

## PLUMBER'S PORTABLE FURNACE.

SPECIFICATION forming part of Letters Patent No. 280,245, dated June 26, 1883.

Application filed May 15, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, CHRISTIAN H. SCHRACK, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Plumbers' Portable Furnaces, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is an elevation, and Fig. 2 a central vertical section, of a furnace constructed in accordance with my invention.

Like letters refer to like parts in both figures.

A represents the body or shell of the furnace, which is mounted upon or formed integral with the base B, and provided with a cover, C, and bail or handle D. The base is separated from the grate portion of the furnace by two bottoms,  $b b'$ , and is perforated, as at  $b^2$ , to permit a circulation of air between said bottoms, to keep the lower one,  $b'$ , cool, so that it can be set upon a floor or carpet without injuring the same by any excessive heat.

Within the body A is an inverted truncated cone, E, the lower edge of which terminates slightly above the grate F, which is supported within the body upon a flange,  $f$ , a suitable distance above the bottom  $b$  to form an ash-chamber. A door, G, is located on the body, to communicate with the ash-chamber.

The conical formation of the part E, whether used in connection with a body which is flared, as shown, a true cylinder, or other form in cross-section, necessarily results in an air-space between the cone and body; and the latter is therefore perforated at or near its top or upper edge, as at  $a$ , whereby, as shown by the curved arrows, external air enters said perforations and descends said air-space, and then rises through the ignited fuel on the grate and the fuel in the cone, and thence, with the products of combustion, into the atmosphere, the cover C being removed.

When it is desired to build or brighten the

fire, fuel being fed upon the grate through the cone, which serves as a reservoir, as before indicated, the door G is opened, and the external air enters therethrough into the ash-chamber, and thence through the grate and reservoir, as shown by the straight arrows. When a steady and limited heat is desired—as for heating soldering-irons, which are inserted from or through the uncovered end of the reservoir into the fire—the door G is generally closed to maintain the downward draft; and this use of the furnace may in some instances answer for producing and keeping a quantity of melted solder, the ladle or crucible being set upon the fuel, as usual.

If desired, marginal slots may be formed in the cover to receive the handles of implements to be heated; or lateral tubes as usually constructed may be arranged in the body or shell of the furnace and provided with suitable covers, which shall serve to aid in securing the desired drafts for supplying air properly for the combustion of the fuel.

Having described my invention and its operation, what I claim is—

1. A portable furnace comprising a shell, A, perforated at its upper edge, as at  $a$ , a base, as B, having an upper and a lower bottom, and perforated, as at  $b^2$ , a grate, as F, an inverted truncated conical reservoir, as E, and a door, as G, communicating with the ash-chamber below the grate, substantially as shown and described.

2. In a portable furnace, the combination of the apertured shell A, the grate F, the truncated cone E, terminating slightly above the grate, and the closed bottom  $b b'$ , substantially as specified.

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

CHRISTIAN H. SCHRACK.

Witnesses:

OLIVER B. VAN BUREN,  
HORACE SPOONER.