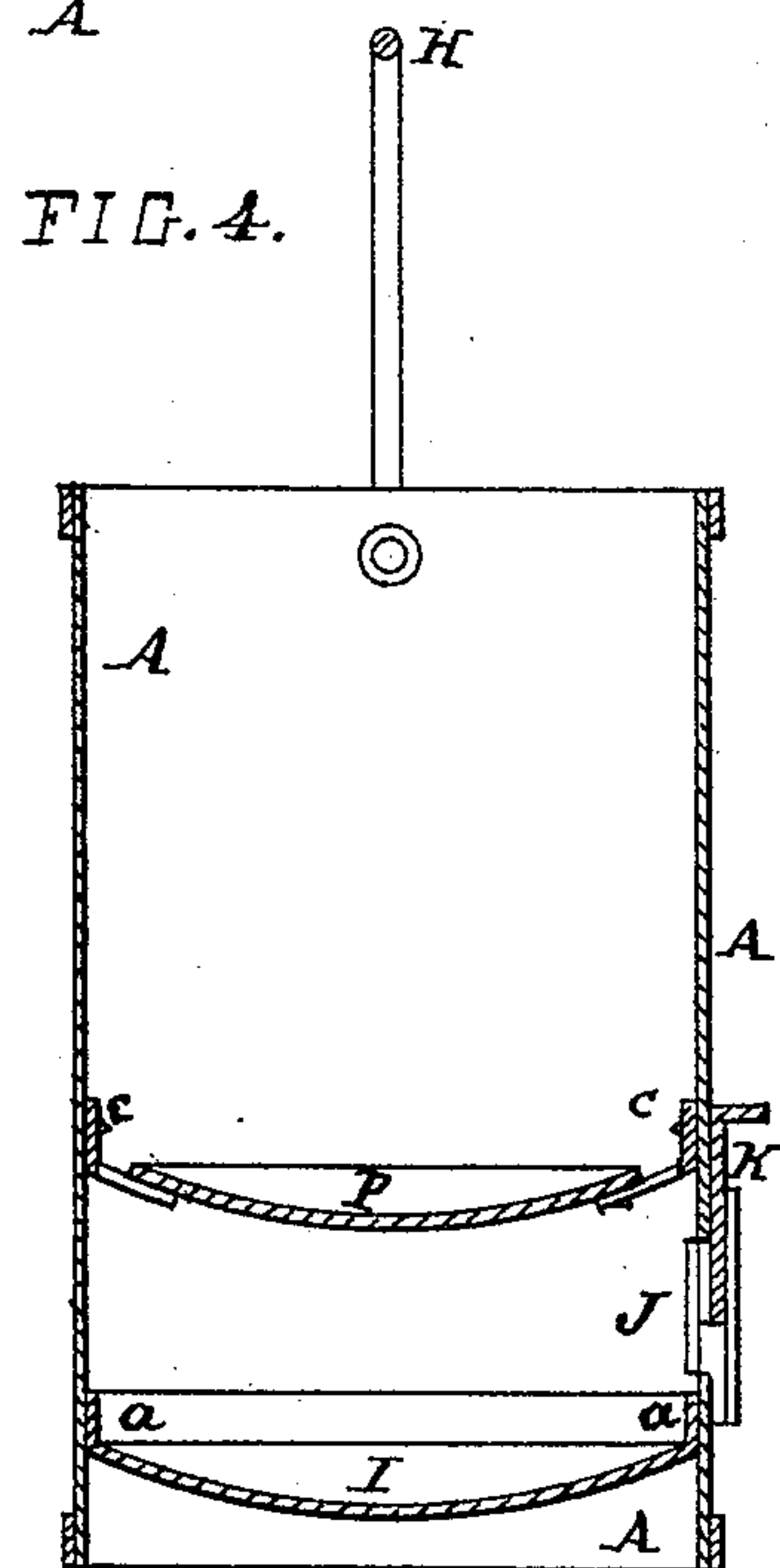
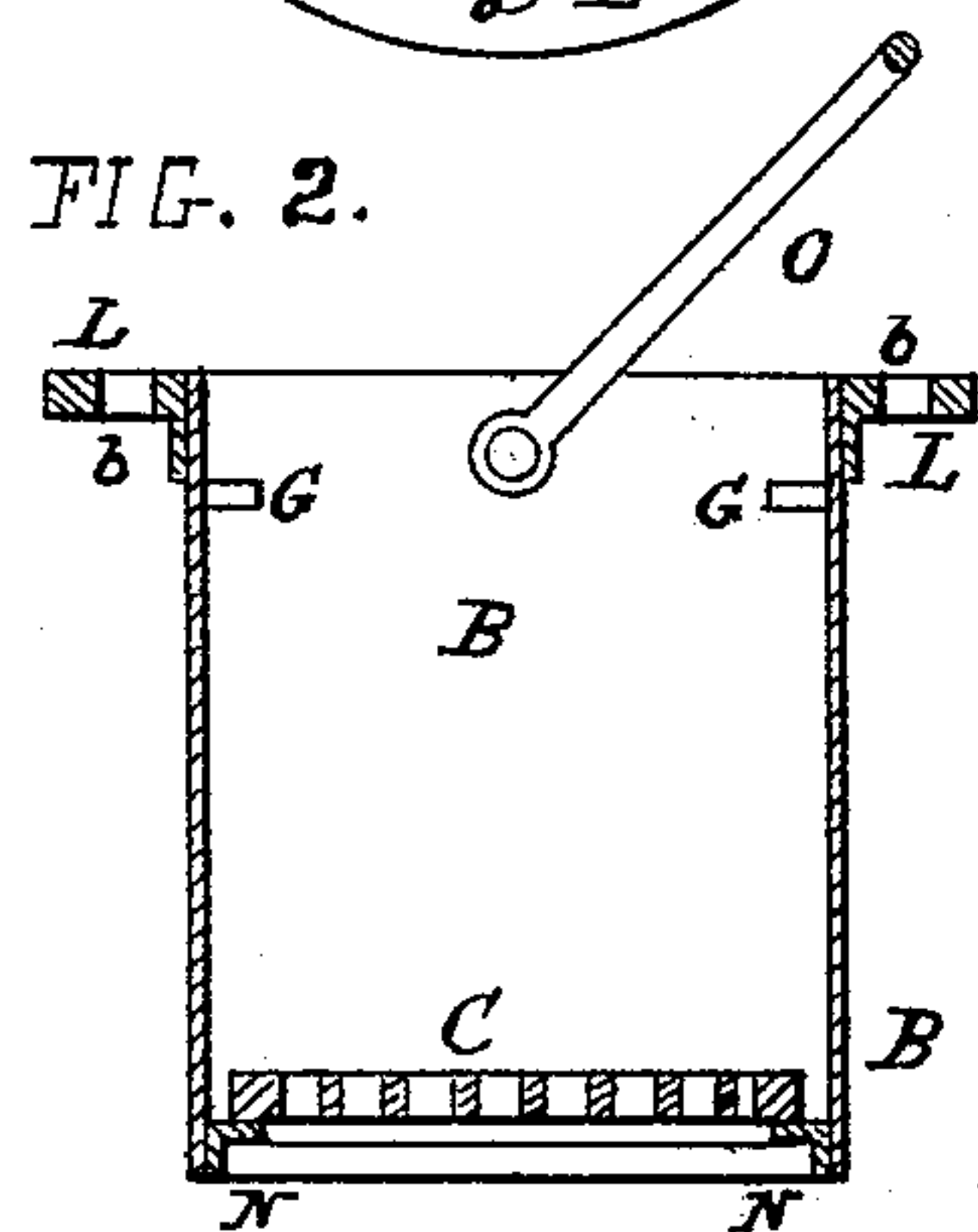
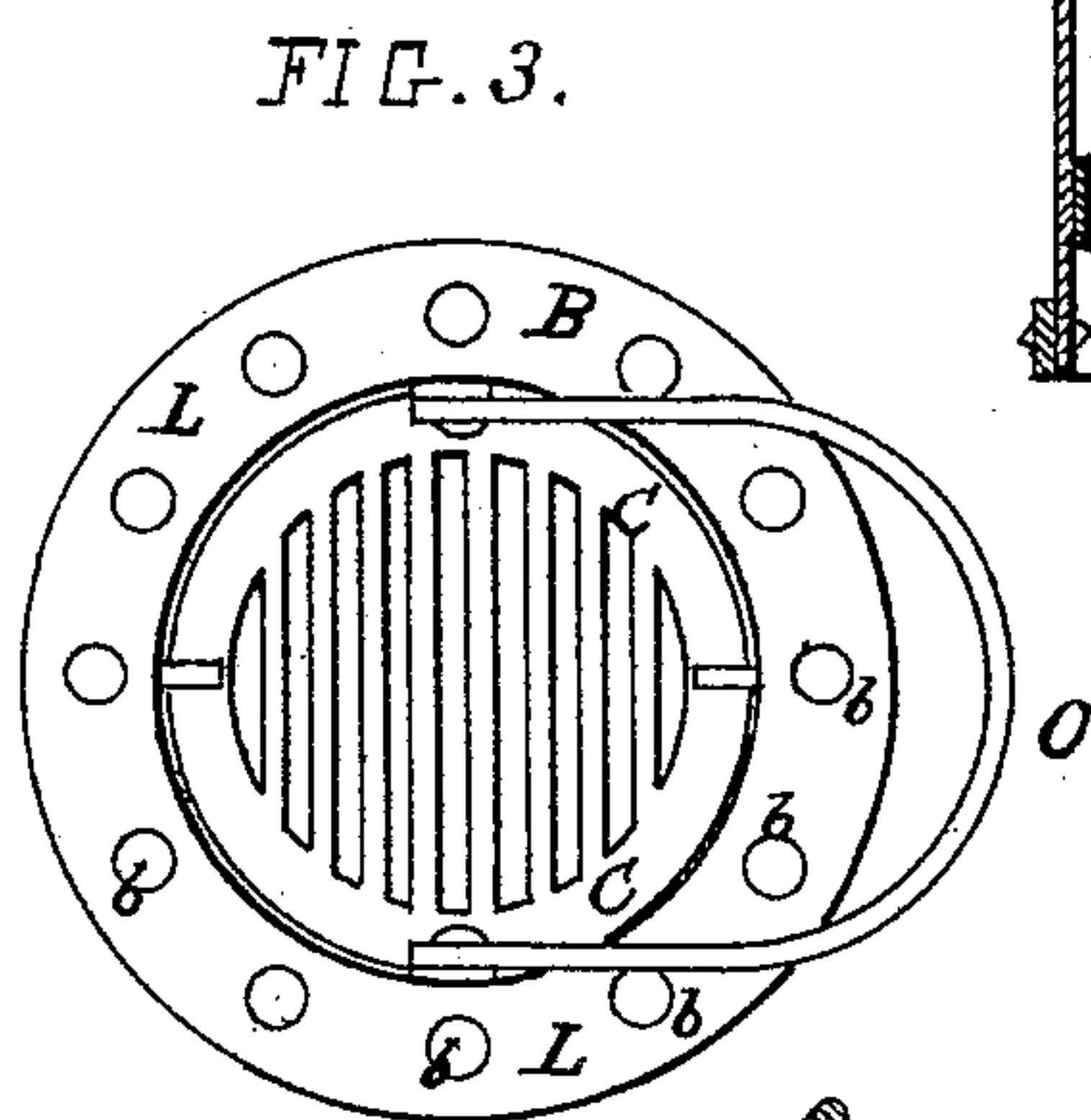
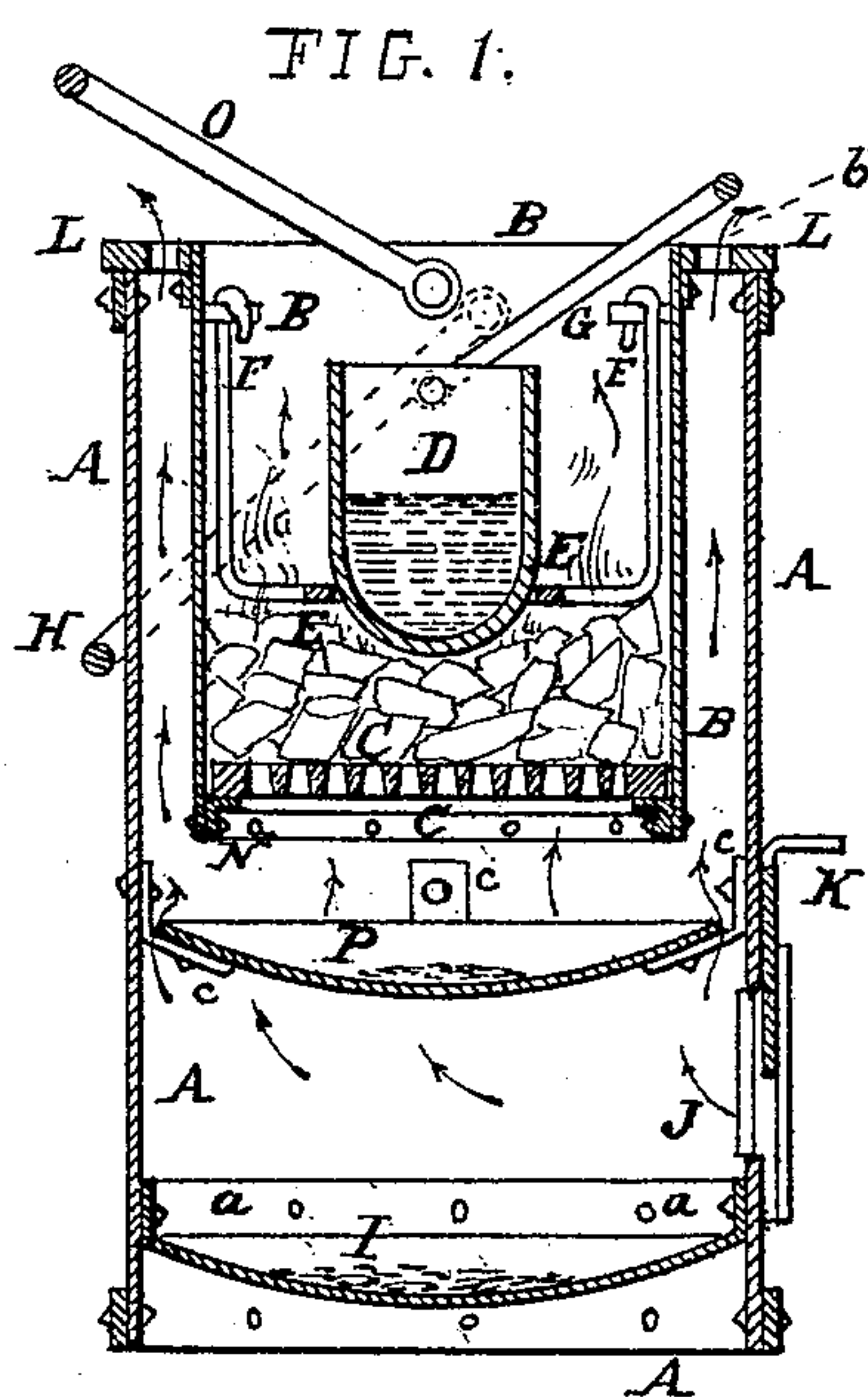


(No Model.)

F. C. & G. E. LOEBLE.
PLUMBER'S PORTABLE FURNACE.

No. 500,239.

Patented June 27, 1893.



Witnesses
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FREDERICK C. LOEBLE AND GOTTLÖB E. LOEBLE, OF BROOKLYN, NEW YORK.

PLUMBER'S PORTABLE FURNACE.

SPECIFICATION forming part of Letters Patent No. 500,239, dated June 27, 1893.

Application filed July 18, 1892. Serial No. 440,300. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK C. LOEBLE and GOTTLÖB E. LOEBLE, citizens of the United States, and residents of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Plumbers' Portable Furnaces, of which the following is a specification.

This invention refers to a new article of manufacture in plumbers' portable furnaces in which one feature relates to the peculiar construction of the furnace with an independent exterior case and a removable fire-pot and said case with a suitable tight concave bottom, to receive ashes and spilled lead and with a heat deflecting concave disk above it to prevent unduly heating said bottom and causing damage at the place where used and allow with convenience to empty the spilled lead from the furnace.

A secondary feature relates to the construction of said furnace with the outer case, having the bottom and having an air draft slide or door, and with the firepot of a periphery smaller than said case and provided with air openings near the top through either, to have an air space between said pot and case and an air draft through the case to prevent the sides of the same from unduly heating and causing damage at places where used.

In the annexed drawings, Figure 1, represents a vertical central section of a plumber furnace with my improvement complete as in use. Fig. 2, is a vertical central section of the fire pot of the same and shown removed from the outer case of the furnace. Fig. 3, is a top view of the same. Fig. 4, is a detached vertical central section of the outer case of the furnace.

The letter A of reference indicates the outer case, the letter B the fire pot and C the grate in the fire-pot of the furnace.

D represents the lead pot in which the lead is melted over the coal in the fire pot. Said lead pot to prevent its tipping instead of resting upon the coal direct, is furnished with a guide ring E to rest therein. Said ring has upward hooks F attached, by which said ring is suspended suitably by studs G from the sides of the pot D. By setting the lead pot into the ring E it is guided to prevent its tipping over and spilling the lead. The outer case A of

the furnace is made cylindrical of sheet metal. Its top and its bottom are made strong by an outer band on each, riveted thereon as shown. Its top is open and has attached the handle H, and near its lower end is provided a concave bottom I which has an upward rim *a* by which it is riveted to the case A. And a little above said bottom I. is made an opening J through the side of the case for the admission of the air draft of the furnace. Over said opening is provided a door or slide K to regulate the air draft. The fire-pot B is made also cylindrical, but of a smaller diameter than the case A to provide for an air space between it and the pot B which has a flange L on its top end resting upon the top of the case A. Said pot is made considerably shorter than the case and in its bottom end is resting the grate C loosely upon a rim N which is secured on the inner side of said end of the pot. To the inner side of the upper end is pivoted the handle O by which said pot is removed or carried. The flange L has openings *b* through which the air passes out from the air space between the case A and pot B. A suitable distance below the grate C is secured to the sides of the case A a concave circular disk P of a smaller diameter than the case A by means of several staples C riveted on the inside of the case. The air entering from the opening J and slide K, passes up between the sides of the case and the outer periphery of the disk P. A portion of it passes into the coal and fire pot B. The remainder passes through the air space between the case and pot B and out through the openings *b* by which means the sides of the case are prevented from unduly heating. The disk P serves to receive spilled lead and ashes, and deflecting the heat from the grate and protecting the bottom I from unduly heating and causing damage where the furnace is placed. For emptying the collected spilled lead from the furnace, the fire pot B is removed and the case A is inclined to allow the lead to pass out of the door K. From the foregoing will be observed the outer shell or case A is an independent body provided with the handle or bail H without a grate to support the fire. It has a solid bottom at its lower portion, permanently secured and has a concave shield or disk P with an air space between its outer periphery and the inner pe-

riphery of the shell and is also permanently secured to the shell by means of the staples c. The furnace door K for the air supply is provided on the case A between the disk P and bottom I. The fire pot B is also an entirely independent portable body with a bail O to be carried, or used and furnished with a grate and the rim or flange L provided with the air holes b and the fire pot is of considerable smaller periphery than the case for a convenient and plenty air space between said pot and the case A. The cold air enters through the door K into the space between disk P and bottom I. It rises between the disk P and shell A. A portion of the air passes into the grate to supply the fuel. The remaining portion passes up between the fire pot and shell A and finally the air discharges vertically through openings b in the flange L. The whole supply of air enters cold between the disk P and bottom I. Thereby the bottom I is kept from getting hot. The disk P remains in its place and if solder or lead has been spilled from the lead pot it is saved in the furnace. The fire pot is ready to lift up and out from the case A to empty the fire from the pot after the use of the furnace without losing the spilled lead or solder. By the air passing rapidly through the large air space between the pot and case A, only the fire pot sides become red hot and damaged the case does not get red hot and is preserved and not liable to set fire to its surroundings. By means of the lead pot guide ring E and its fastenings the lead pot is held from tipping over and spilling the lead.

The plumber's furnace herein shown as a whole is a much preferred article to those heretofore made by reason of being more durable, less liable to set fire around it and less liable to lose the spilled lead and is more convenient to use.

After the use of the furnace my firepot is removed, the fuel is emptied, and the spilled lead remains in the case A and is saved and carried home.

In the ordinary furnace without the detachable firepot, the spilled lead is emptied with the fuel and generally lost.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. As a new article of manufacture in portable plumber's furnace as a whole the combination with its outer case A its bail H and its solid attached bottom I and the attached concave disk bottom P above and with the air passage between it and the shell A and the door opening J and door K between said bottoms, of the detachable and portable fire pot B with the large vertical annular air space between it and the case A its flange L with the air outlets b its grate C and bail O substantially as and for the purpose herein set forth.

2. The combination as a whole with the portable detached fire pot B its bail O and its grate C the flange L with the air outlets b and the bail O and the lead pot guide ring E its hooks F and studs G and the outer case A with the vertical annular air space between it and the fire pot and said case with its bail H its bottoms P and I as described and the door K and opening J between said bottoms substantially as and for the purpose herein stated.

Signed at New York, in the county of New York and State of New York, this 4th day of April, 1892.

FREDERICK C. LOEBLE.
GOTTLOB E. LOEBLE.

Witnesses:

THOS. E. GREEN.
REINHOLD BOECKLEN.