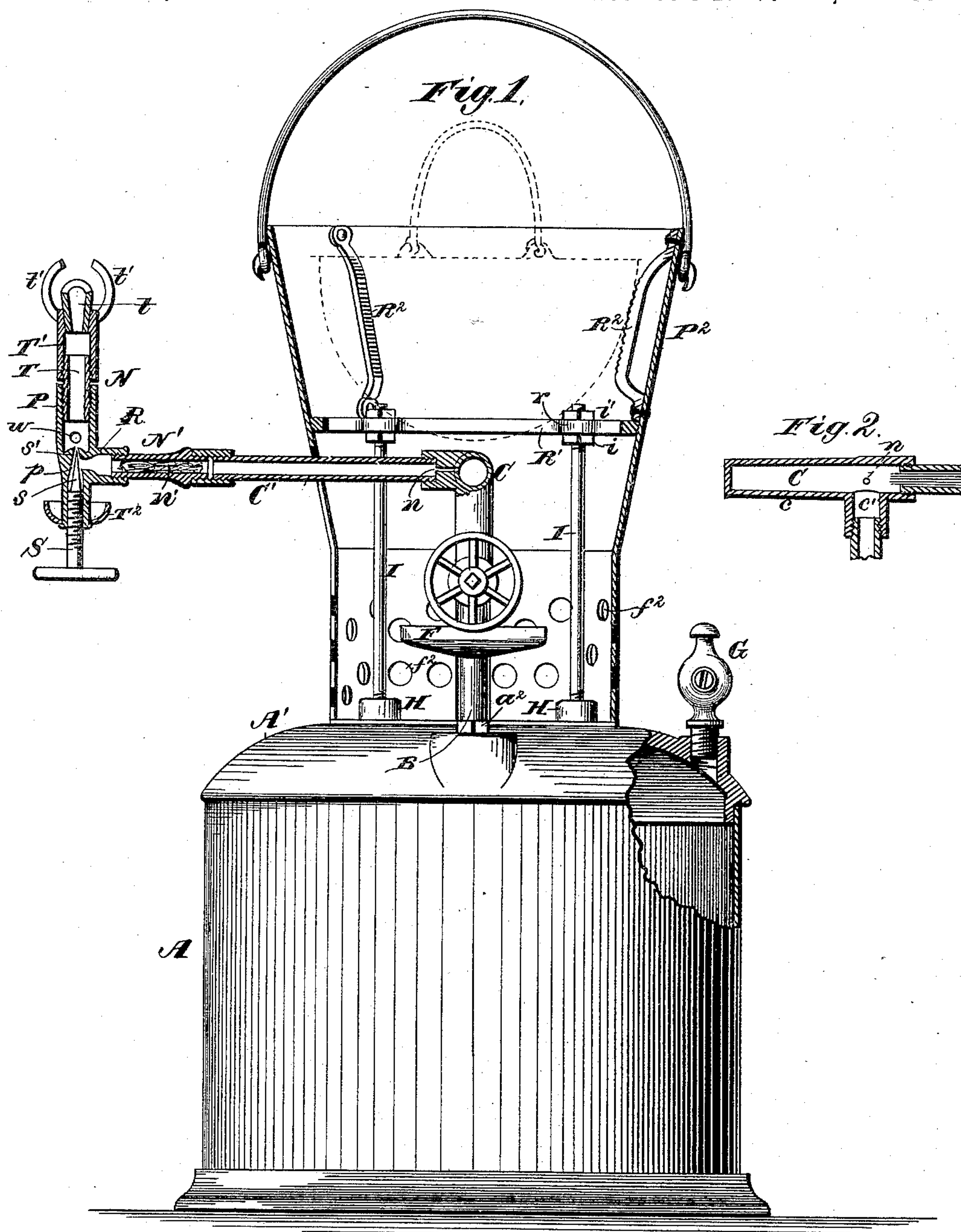


(No Model.)

P. J. FITZGERALD.
PORTABLE FURNACE FOR TINNERS.

No. 330,218.

Patented Nov. 10, 1885.



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PETER J. FITZGERALD, OF PHILADELPHIA, PENNSYLVANIA.

PORTABLE FURNACE FOR TINNERS.

SPECIFICATION forming part of Letters Patent No. 330,218, dated November 10, 1885.

Application filed August 17, 1883. Serial No. 103,998. (No model.)

To all whom it may concern:

Be it known that I, PETER J. FITZGERALD, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Portable Furnaces for Plumbers, Tinnerns, &c, of which the following is a specification.

My invention relates to portable furnaces for tinnerns and plumbers, the object being to provide means for holding and supporting a melting-kettle in which solder may be melted.

The object of my invention I accomplish in the manner and by the means hereinafter described and specifically claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a view, partly in section and partly in elevation, of a furnace embodying my invention. Fig. 2 is a detail sectional view of the retort.

A in said drawings represents a metallic cistern of suitable dimensions and of cylindrical or other convenient form, and is hermetically closed by a cast-iron cover, A', which may be provided with the ordinary opening and screw-plug, whereby a filling-inlet is formed for supplying the cistern with oil. The said cistern should be filled a little more than half full of a suitable hydrocarbon—such as gasoline—having a specific gravity of seventy-five degrees. Through the cover A', near its edge, is tapped an oil-supply tube B, which should extend nearly to the bottom of the cistern, and be provided with a wire-gauze strainer to prevent sediment from entering the tube. The upper end of the pipe extends vertically some inches above the cover, where it has an elbow, into which is screwed a horizontal arm, b', to which is attached the retort C. This device, which is composed of hard metal, has a long horizontal arm or branch, c, having an enlarged diameter, and a short arm, c', projecting downwardly, which connects with a pipe carrying a valve and an oil-cup, F, whereby oil from the retort can be supplied to the oil-cup in regulated quantities by the said valve.

G represents a vent-pipe, which is tapped through the cover A'. By applying thereto any suitable pump air may be compressed within the cistern to such a degree as to drive the oil up through the supply-pipe B and through the horizontal arm b'. It passes thence into the retort, down through the short vertical arm c' thereof to the valve and oil-cup F, where it is volatilized and burned. I make no claim to the retort and oil volatilizing and burning devices, as any of the constructions in ordinary use will answer all the purposes of my invention.

P² designates a hood, which consists of a circular upwardly-flaring pipe resting upon the lid A', having perforation f², to allow draft, and slotted to permit the passage of the arm b', arm c', and stem of the valve connected with the retort. At a point not far from its center an iron ring, R', is attached, which is provided with perforated lugs r, so arranged that they will engage with vertical supports I, screwed into the bosses H on the cover A'. The upper ends of these supports are screw-threaded to receive the nuts i, upon which the ring R' rests, being securely held thereto by jam-nuts i'. Above the ring R' are placed supports or protecting-ribs R², between which the melting-kettle is placed, as shown by the dotted lines.

When necessary, a lighting device may be used in connection with my furnace, which may be constructed as follows: Upon the retort C is formed a horizontal arm, C', communicating with the retort by an aperture, n. To this arm is attached a gas-pipe, N, having a burner-tip, t, by a connection, N', filled with asbestos n'. The gas-burner consists of the vertical branch P, having an attaching-arm, R, valve-chamber p, valve s, and valve-stem S. The upper end of the burner has a threaded connection, T, upon which is screwed a sleeve, T', upon which are formed the heat-conductors t'. u is an opening to admit atmospheric air to aid combustion.

What I claim is—

A portable furnace for plumbers' and tinnerns' use, composed of an oil reservoir or cistern,

tern, A, having cover A', an oil-supply pipe,
B, having retort C and burner, the uprights
I I I, detachable hood P², having an inner
ring with lugs which engage with said up-
5 rights, and vertical ribs R², arranged upon
said ring to support a melting-kettle, sub-
stantially as described.

In testimony whereof I have hereunto set
my hand in the presence of two subscribing
witnesses.

PETER J. FITZGERALD.

Witnesses:

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A. H. NORRIS.