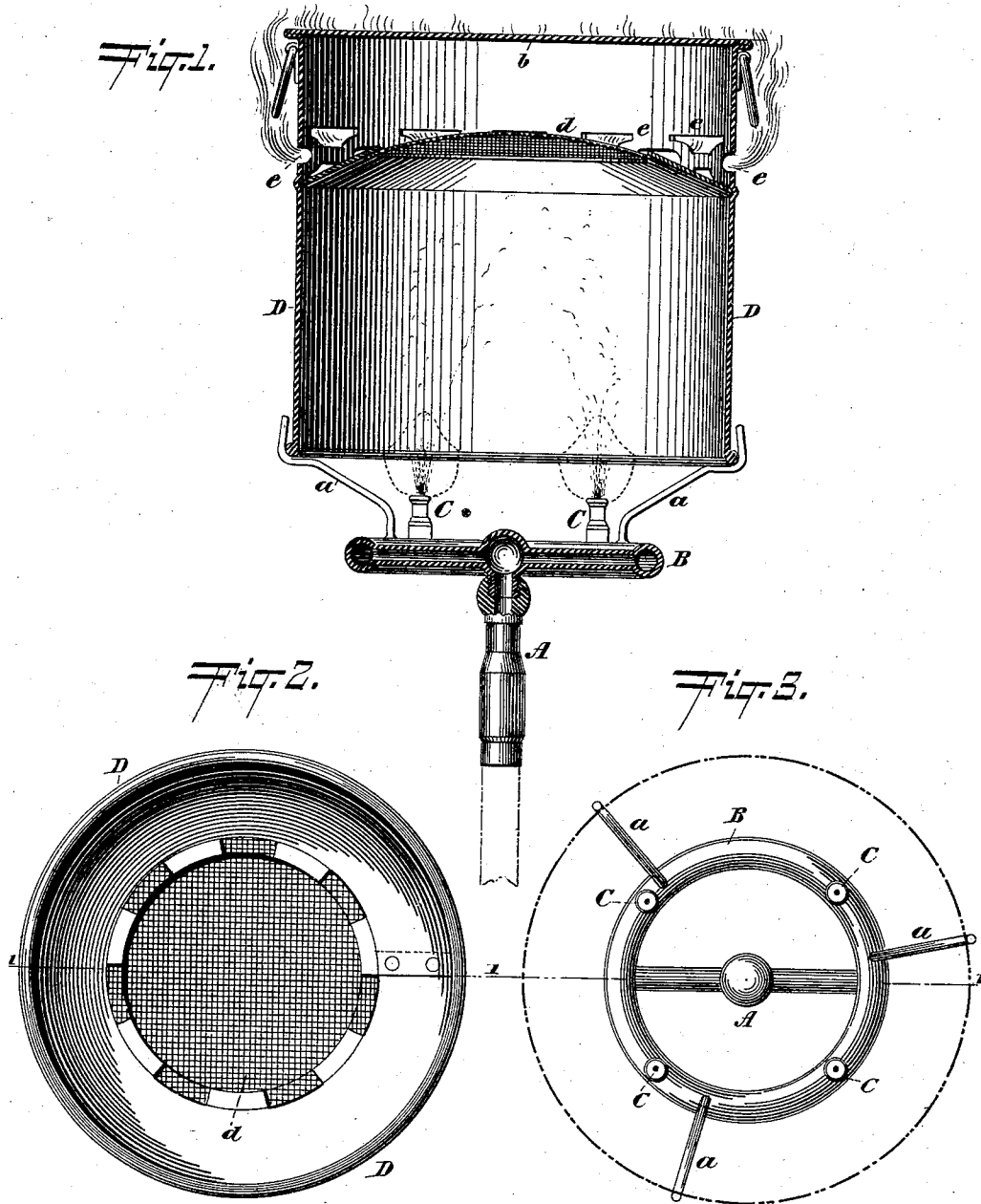


(No Model.)

J. D. LUTHER.
LIGHTING AND HEATING APPARATUS.

No. 482,874.

Patented Sept. 20, 1892.



WITNESSES:
Gustave Friedrich.
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UNITED STATES PATENT OFFICE.

JAMES D. LUTHER, OF BROOKLYN, NEW YORK.

LIGHTING AND HEATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 482,874, dated September 20, 1892.

Application filed March 15, 1892. Serial No. 424,959. (No model.)

To all whom it may concern:

Be it known that I, JAMES D. LUTHER, a resident of Brooklyn, Kings county, and State of New York, have invented an Improved
5 Lighting and Heating Apparatus, of which the following is a specification, reference being had to the accompanying drawings, forming part hereof, wherein—

Figure 1 represents a vertical central section of my improved lighting and heating apparatus. Fig. 2 is a bottom view of the drum used thereon. Fig. 3 is a top view of the apparatus without the drum.

This invention has for its object to supply
15 ordinary gas-brackets with means for lighting and heating the room and for boiling water and the like.

The invention consists of the new combination of parts hereinafter more fully specified.

20 In the drawings the letter A represents the end of the gas-pipe.

B is a hollow ring connecting with the gas-pipe and carrying series of gas-nipples C of ordinary or suitable construction. These gas-
25 nipples may project directly from the ring, as shown, or from arms thereon. In the drawings I have shown four such gas-nipples on the ring; but a greater or less number may be employed.

30 From the ring B, or, if desired, from the pipe A, extend a series of brackets *a* to a height greater than that of the gas-nipples, as shown. These brackets *a* are adapted to support a drum D, which is open at the lower end and which, by preference, is closed, as at *b*, at the upper end. Between the upper and lower ends this drum has a diaphragm *d*, of wire-gauze or the like, and above this diaphragm the drum has a series of air-holes *e* in the up-
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per heating-chamber, formed between the top 40 *b* and diaphragm *d*.

When my improved apparatus is desired for illuminating purposes, it is only necessary to light the gas at the ends of the gas-nipples C, when the ordinary illuminating-flame will
45 be produced, yet at the same time the drum may be left in place on the brackets and the heat resulting from the illuminating-flames will in that case be to some extent collected and given out by said drum. When, however, 50 the apparatus is to be used for cooking or particular heating purposes, I do not light the gas at the nipples C, but allow it to flow into the drum mixed with air that enters the lower end of said drum, and I then light the mix- 55 ture above the diaphragm *d*, thereby producing a strong heating-flame and the consequent results of rapid boiling or the like of anything placed upon the drum.

The apparatus is particularly useful to per- 60 sons who occupy small quarters and who desire from time to time to employ their gas-brackets for the several purposes hereinbefore stated.

What I claim is—

65 A lighting and heating apparatus consisting of the gas-pipe A, gas-ring B, having gas-nipple C and bracket *a*, all arranged below the drum D, open at its lower end and provided with the perforated diaphragm *d*, said 70 drum being imperforated below and perforated above said diaphragm, substantially as and for the purpose specified.

JAMES D. LUTHER.

Witnesses:

HARRY M. TURK,
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