

(No Model.)

J. P. PETERS.
PORTABLE STOVE AND BURNER.

No. 572,908.

Patented Dec. 8, 1896.

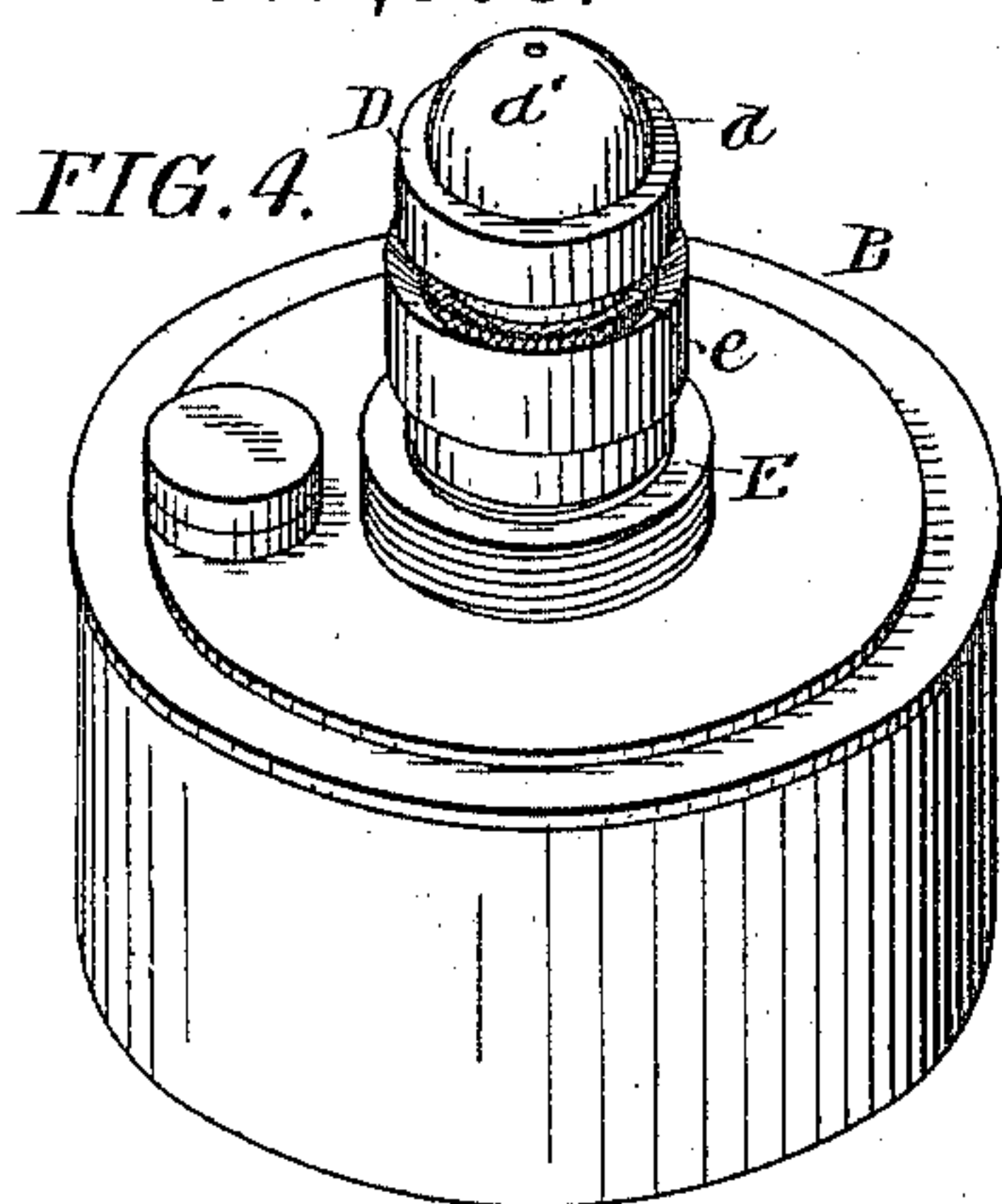


FIG. 5.

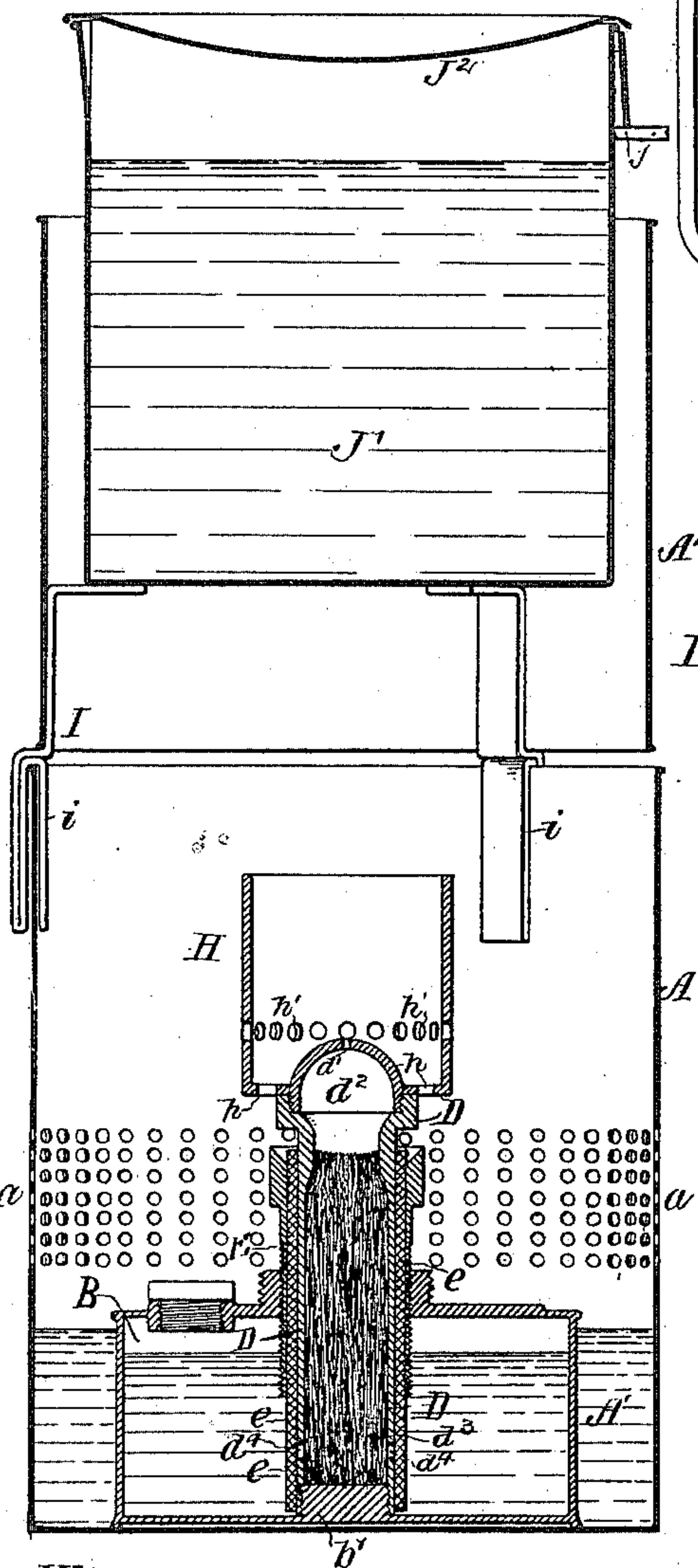
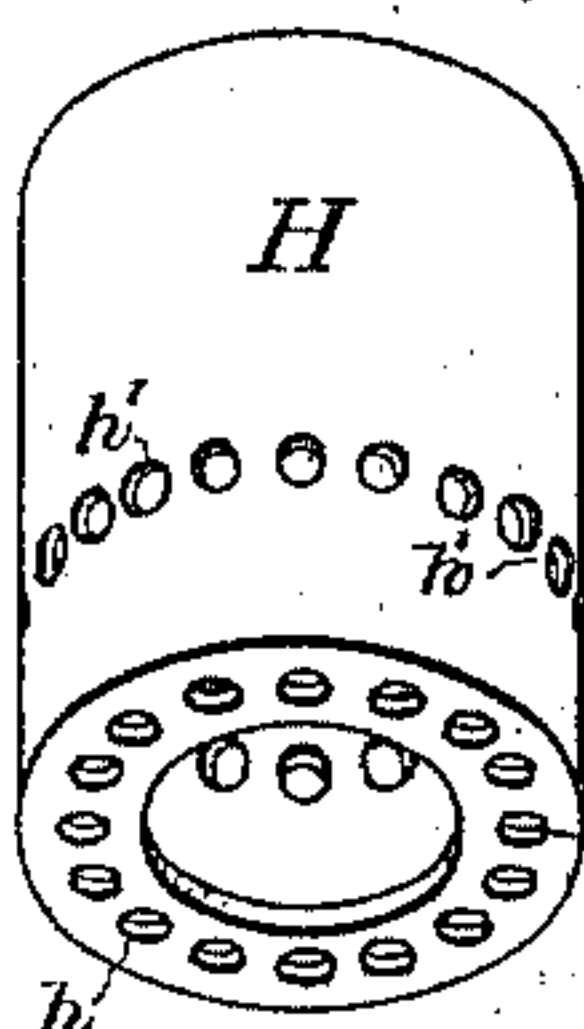
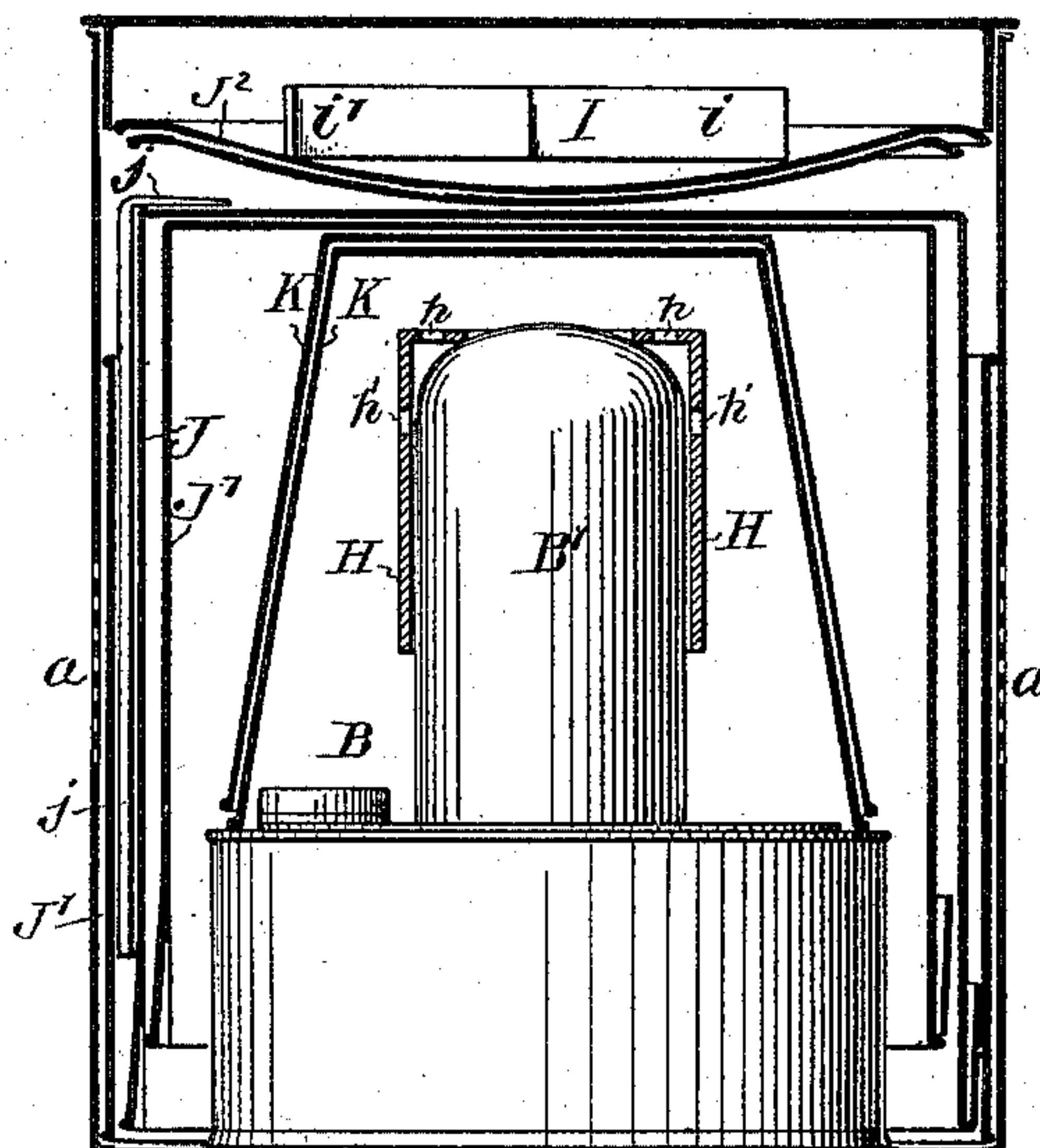
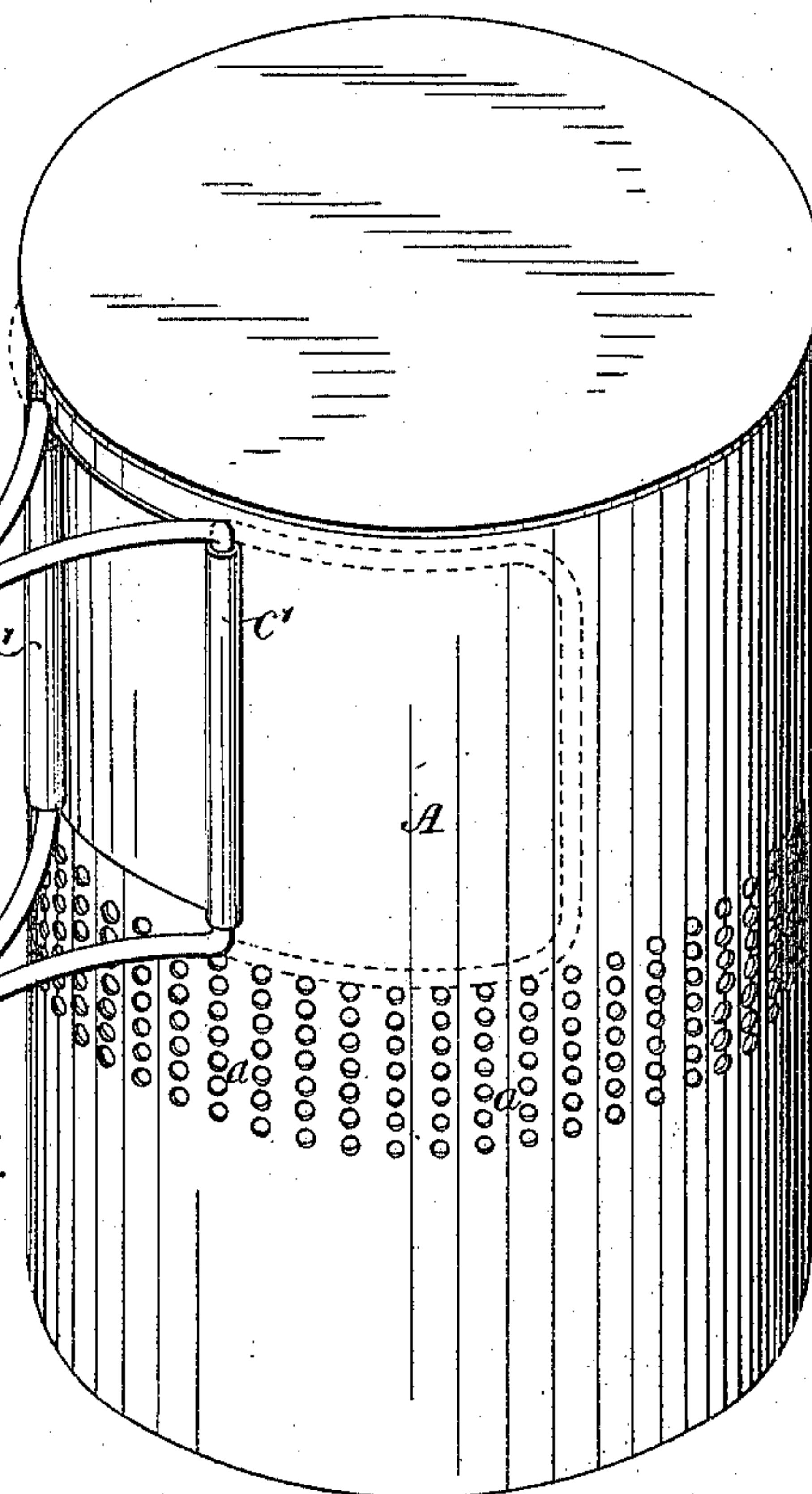


FIG. 1.

FIG. 2.



Witnesses:
Hamilton D. Turner
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UNITED STATES PATENT OFFICE.

JOHN P. PETERS, OF PHILADELPHIA, PENNSYLVANIA.

PORTABLE STOVE AND BURNER.

SPECIFICATION forming part of Letters Patent No. 572,908, dated December 8, 1896.

Application filed October 9, 1894. Serial No. 525,427. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. PETERS, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented a certain Improved Portable Stove and Burner, of which the following is a specification.

The object of my invention is to so construct a lamp and portable stove for burning spirits, such as alcohol, that it will be perfectly safe and will produce a strong flame, and that can be packed into a small compass when not in use.

In the accompanying drawings, Figure 1 is a view in perspective of my improved portable stove packed ready to be carried. Fig. 2 is a sectional elevation showing the stove closed, as in Fig. 1. Fig. 3 is a view showing the stove extended. Fig. 4 is a perspective view of the lamp I prefer to use in the stove, and Fig. 5 is an inverted perspective view of the flame-chamber.

A is the casing, perforated at *a* for the passage of air to aid combustion. Within the casing is mounted the lamp B, having a base *b* containing the alcohol or other spirits. The bottom *A'* of the casing is made water-tight, so that the lamp-base can rest in water and thus be cooled to a certain extent.

The lamp is constructed as follows:

D is a tubular stem screw-threaded at its lower end and adapted to a screw-threaded projection on the bottom of the base *b*, so that it will be fixed in position in respect to the base.

d is a head mounted on the tubular stem and having an orifice *d'* for the escape of gas formed in the gas-chamber *d²* in the upper portion of the stem D. In the lower portion of the stem is a wick *d³*, through which the alcohol is conveyed to the gas-chamber *d²*. The opening *d⁴* in the stem allows the alcohol to pass to the wick.

E is a screw-threaded tubular-wick holder adapted to screw-threads in the casing of the lamp, and between this tubular-wick holder and stem D is a tubular wick *e*, the burning-surface of which is regulated by raising or lowering the tubular-wick holder E.

The wick *e* is ignited by a match or other means, and the flame from the wick heats the gas-chamber *d²*, and after a certain time a combustible gas will pass through the open-

ing *d'* in the head *d* and combine with the flame of the wick, forming an intense flame which draws its supply of oxygen through the perforations *a* of the casing. Thus I am enabled in a very short time to provide a flame which will quickly boil or heat the contents of any vessel placed above it.

The head *d* preferably extends over the tubular wick, as shown in Fig. 3, and the wick-holder E is preferably tapered at the top, so that it will close tight upon the head *d* and prevent leakage through the tubular wick when the lamp is packed.

Mounted on the head *d* is a flame-chamber H, having perforations *h* in its base for the passage of the flame from the tubular wick *e* and perforations *h'* in its side for the ingress of air to aid combustion.

Adapted to the casing are a series of clips or brackets I, having U-shaped portions *i*, which pass over the edge of the casing A, and portions *i'*, upon which rests the vessel J' to be heated.

I provide an extension of the casing A in the form of a cylindrical shell A², which rests upon the clip I, as shown in Fig. 3. The shell A² is made less in diameter than the casing A, so that it can be slipped within the casing, as shown in Fig. 2. The vessels J J' are also less in diameter than the casing, so that they can be packed therein with the covers J² and cups K, together with the handle *j* for the cooking vessel.

When the articles are packed, the lamp is closed by a cover B', as shown in Fig. 2, so that the alcohol or other spirits will not evaporate.

The casing A is provided with handles *c c*, which are pivoted at *c'* to the casing and can be extended, as shown in full lines in Fig. 1, or closed against the casing, as shown by dotted lines in said figure.

By the peculiar construction and arrangement of the lamp very little alcohol is required.

It will be understood that the utensils packed with the stove may be varied without departing from my invention.

I claim as my invention—

1. The combination in a lamp of the central stem having a head forming a gas-chamber at its upper end, an outlet for said cham-

ber, an annular wick surrounding said stem, a perforated cylinder mounted on the head of the stem above the annular wick and forming a flame-chamber, substantially as described. 5

2. The combination in a lamp, of the central stem having an overhanging head, a gas-chamber in said head, an outlet therefor, an annular wick, a wick-holder having its upper portion tapered so that it can be adjusted against the under part of the head and inclose the annular wick without closing the outlet of the gas-chamber, substantially as described. 10

3. The combination of the casing, air-inlet 15 openings therein, a lamp within the casing, clips adapted to the casing, an additional casing mounted on the clips, said clips being formed to receive a cooking vessel, substantially as described. 20

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN P. PETERS.

Witnesses:

HENRY HOWSON,
JOSEPH H. KLEIN.