

No. 627,555.

Patented June 27, 1899.

C. H. WHITAKER.
FOOT WARMER.

(Application filed Feb. 23, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

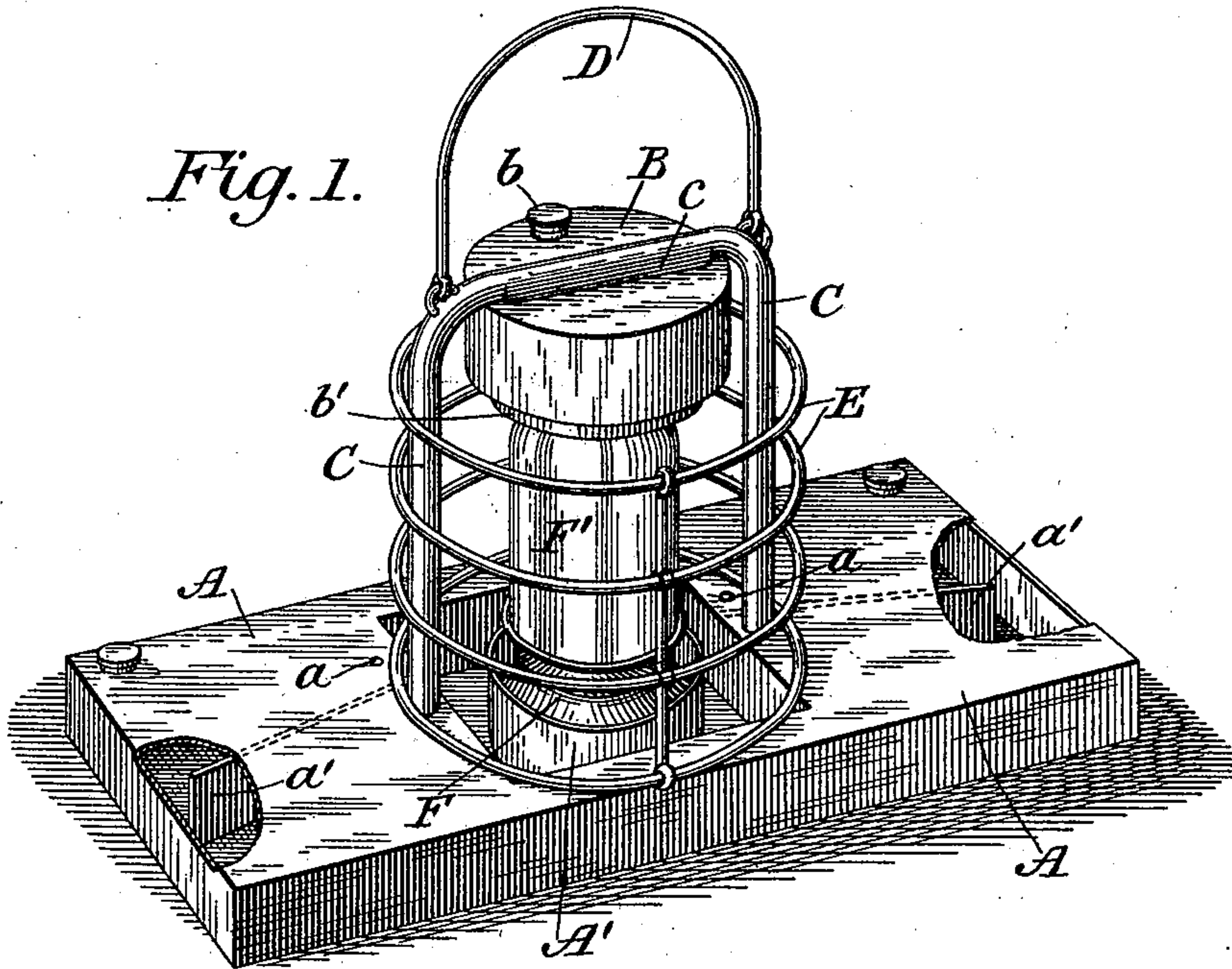
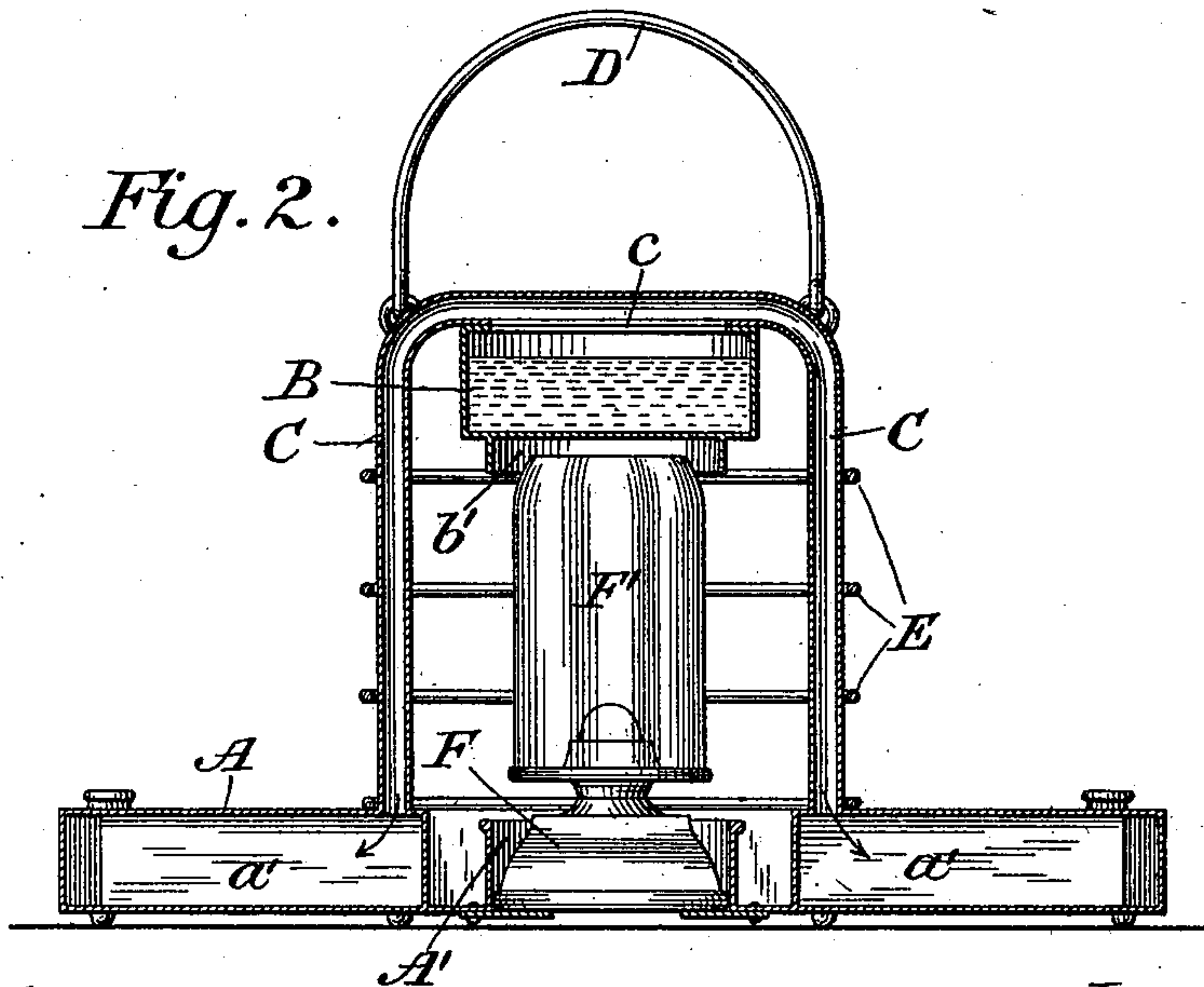


Fig. 2.



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Fig. 3.

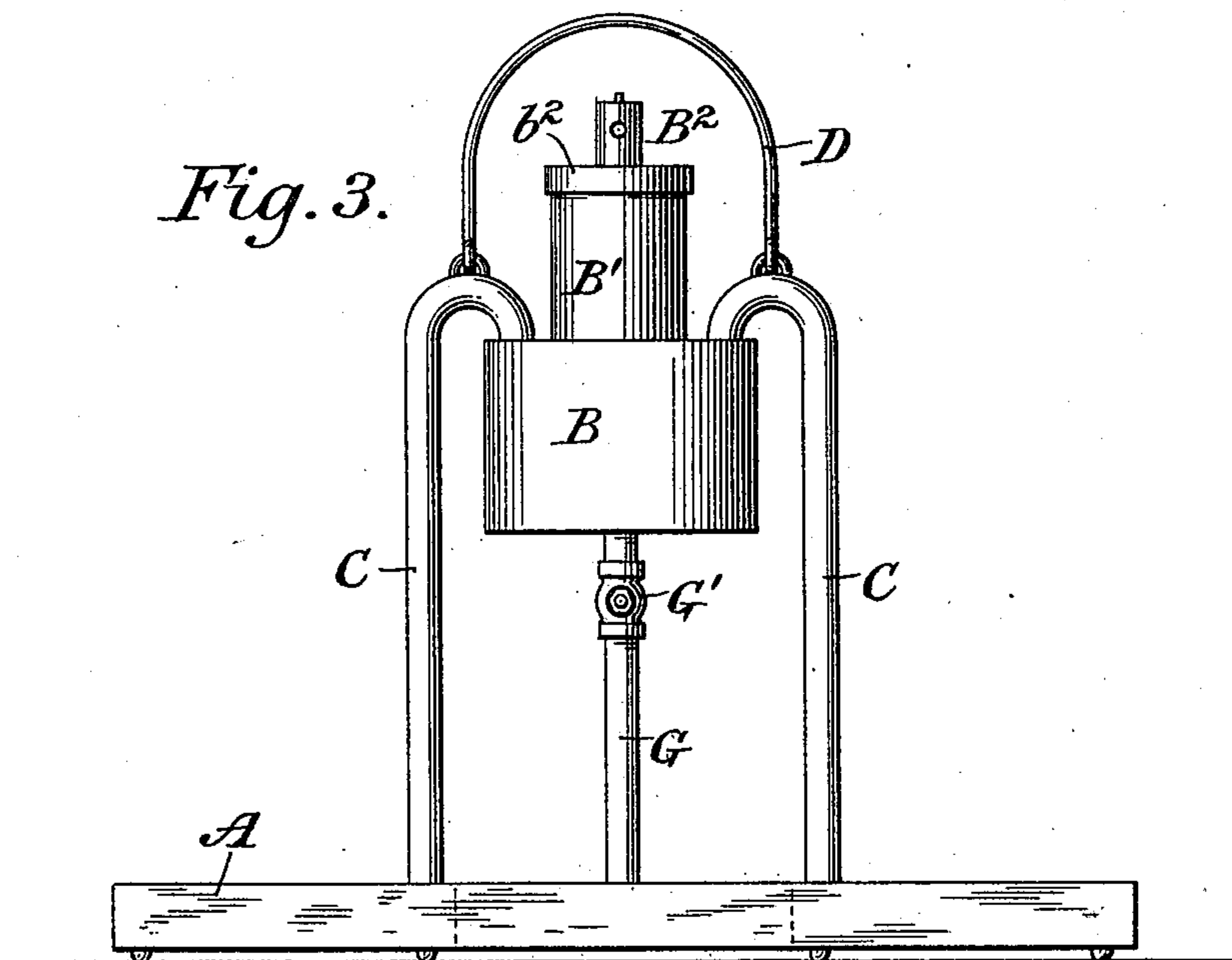
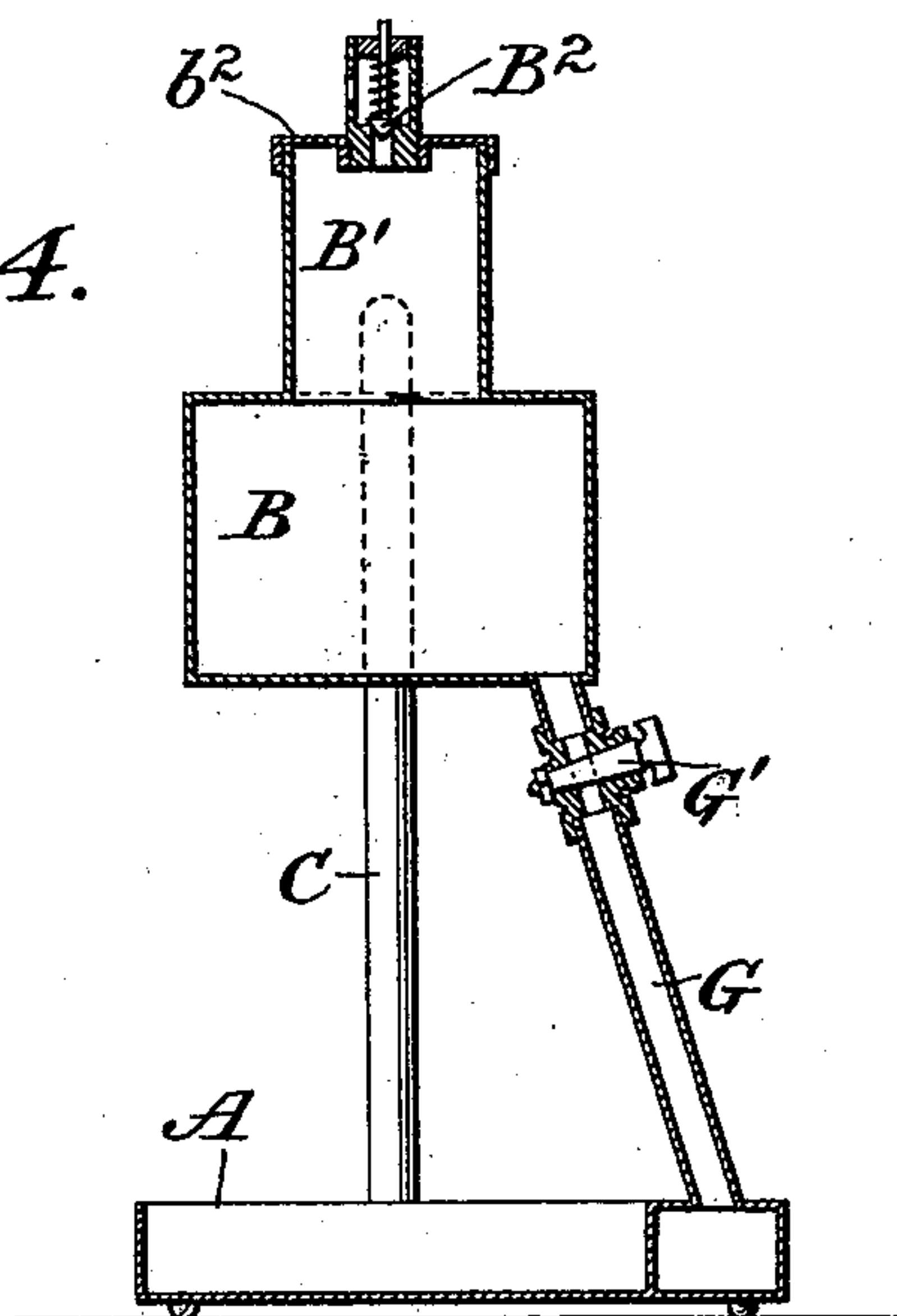


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES H. WHITAKER, OF NEW YORK, N. Y.

FOOT-WARMER.

SPECIFICATION forming part of Letters Patent No. 627,555, dated June 27, 1899.

Application filed February 23, 1899. Serial No. 706,460. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. WHITAKER, a citizen of the United States, residing in the borough of Manhattan, city of New York, State of New York, have invented certain new and useful Improvements in Foot-Warmers, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

10 This invention has for its object to produce an improved foot-warmer available for use wherever required, but especially intended for use in sleighs and carriages during cold weather. Simplicity in construction and efficiency and convenience in use are the ends chiefly in view in the improved construction; but it has been sought to produce a device of this general character which shall be free from all objections and also be capable of
20 production at a low cost. Any suitable lamp or other heater may be employed as the source of heat; but it is preferred to provide for the use of water or of steam as the medium by which heat is transferred from its source to
25 the points where it can be used to the greatest advantage and with the maximum of convenience.

The apparatus or device, as shown in the accompanying drawings, comprises a thin flat
30 warmer to which steam or hot water is conducted from a water heater or boiler, which is centrally located with respect to the base or warmer and is supported above a suitable lamp or other form of heater.

35 In the drawings, Figure 1 is a perspective view of one form of the foot-warmer, the base being partly broken out to show the internal construction. Fig. 2 is a vertical central section of the same. Fig. 3 is a side elevation of a modified form of the device, the cage or protecting-wires being omitted. Fig. 4 is a vertical cross-section of the device shown in Fig. 3.

45 The device which forms the subject of this invention may be either a hot-water heater or a steam-heater. The form of the device shown in Figs. 1 and 2 of the drawings is adapted for use as a steam-heater only, while that shown in Figs. 3 and 4 can be used either as
50 a steam-heater or as a hot-water heater. The form shown in Figs. 1 and 2 will first be described, and thereafter the additional features

of the form shown in Figs. 3 and 4 will be described and explained with reference to said figures.

Referring now particularly to the construction shown in Figs. 1 and 2, the device comprises a hollow base or warmer A, which is preferably thin and flat, and if intended for use as a foot-warmer for sleighs or carriages
60 may be of such dimensions as to receive one foot of the user on each end portion. Supported by the base A and centrally above the same is a tank B to receive the water to be boiled. As shown in the drawings, the tank
65 is supported by pipes C C, which communicate with the upper portion of the tank B and with the respective end portions of the base or warmer A, the pipes communicating with the tank through a suitable opening, as at c,
70 to receive the steam as it is generated and conduct it to the hollow base or warmer A. A suitable filler is provided at b, and at a may be provided with suitable vents to permit the escape of steam and caps to permit
75 the emptying out of the water of condensation. Baffle-plates a' may be disposed within the base or warmer to promote circulation of the steam. For convenience in handling a bail D may be secured to the pipes or supports C, and a wire cage or guard E may be
80 secured in place upon the base and around the pipes C to protect the tank B and the heater. The latter may be of suitable form or character and is shown as an ordinary oil-lamp F, supported upon the base or in a recess therein and held in place by a suitable
85 cup A'. The heater is shown as having a globe or chimney F' of large diameter, which rises within a downwardly-projecting flange
90 b' on the bottom of the tank B, so that the flame of the lamp is protected from the drafts and the whole device be available for use as a lantern.

Whether the device is a hot-water heater
95 or a steam-heater it is preferable that the tank B be provided with an air-chamber B', as shown in Figs. 3 and 4, and that a safety-valve B² be provided to prevent the development of excessive pressure within the tank
100 and the connected parts. As shown in these figures, the top b² of the air chamber or dome is threaded onto the body and can be removed whenever it is desired to fill the tank.

If the device is to be used as a hot-water heater, it is obviously essential to provide means for the circulation of the water between the tank B and the hollow base A, and for this reason in the construction shown in Figs. 3 and 4 not only are the pipes C C connected to the top of the body of the tank B, but a pipe G is connected to the bottom or lower portion of the tank B and to the base or warmer A, thus affording a path for the return of the cool water from the base of the heater to the tank. The stop-cock G' may be inserted in the pipe G, by means of which the passage through pipe G can be closed and the whole device then used as a steam-heater.

In order to use the construction shown in Figs. 3 and 4 as a steam-heater, it is simply necessary to close the cock G' and place a small amount of water in the tank B, so that steam will be generated. In order to discharge the base A of its contents, it is simply necessary to open cock G' and invert the heater, so that the water will run out through the pipe G, or a screw-cap may be applied, as in Figs. 1 and 2.

The mode of use of the improved foot-warmer will be readily understood from the foregoing description without further explanation here, as will also the advantages of the device in point of simplicity, cheapness, convenience, and efficiency.

I claim as my invention—

1. A portable foot-warmer, comprising a hollow base, a tank supported over and from the middle of the base; the end portions of said base projecting beyond the heater and forming supports for the user's feet, a pipe connecting the interiors of the base and tank, and a heater resting upon the middle of the base and under the tank.

2. A foot-warmer, comprising a flat, hollow foot-warming base, a tank supported centrally by the base; the end portions of the base projecting beyond the tank and serving to support the user's feet and a pipe connecting the tank with the base; the tank and base

being spaced apart to receive a central heater between them.

3. A foot-warmer, comprising a hollow base having a central cup or depression to receive a heater; the ends of the base projecting beyond said depression and serving to support the user's feet, a tank supported above the said central depression and a pipe connecting the tank with the base; substantially as described.

4. A foot-warmer comprising a hollow foot-warming base, a tank supported centrally above the base to allow of a heater being placed under it upon the base and the projecting ends of the base forming supports for the user's feet, a pipe connecting the top of the tank with the base, and a valved pipe connecting the bottom of the tank with the base; substantially as described.

5. A foot-warmer comprising a hollow base, a tank supported by the base centrally thereabove to allow of the placing of a heater therebelow upon the middle of the base, an air-chamber at the top of the tank and provided with a safety-valve, and a pipe connecting the tank with the base; the ends of the base extending far enough beyond the tank and heater to form supports for the user's feet; substantially as described.

6. A foot-warmer comprising a hollow base provided with a central cup or depression, a heater supported in said depression and the ends of the base beyond said depression forming supports for the user's feet, a tank supported above the central depression and heater, a pipe connecting the base ends with the top of the tank and a valved pipe connecting the bottom of the tank with the base; substantially as described.

This specification signed and witnessed this 20th day of February, A. D. 1899.

CHARLES H. WHITAKER.

In presence of—

A. L. HENTHORN,
W. B. GREELEY.