P. HIEN.

Dinner-Pails.

No. 146,906. Patented Jan. 27, 1874.

Fig. 1.

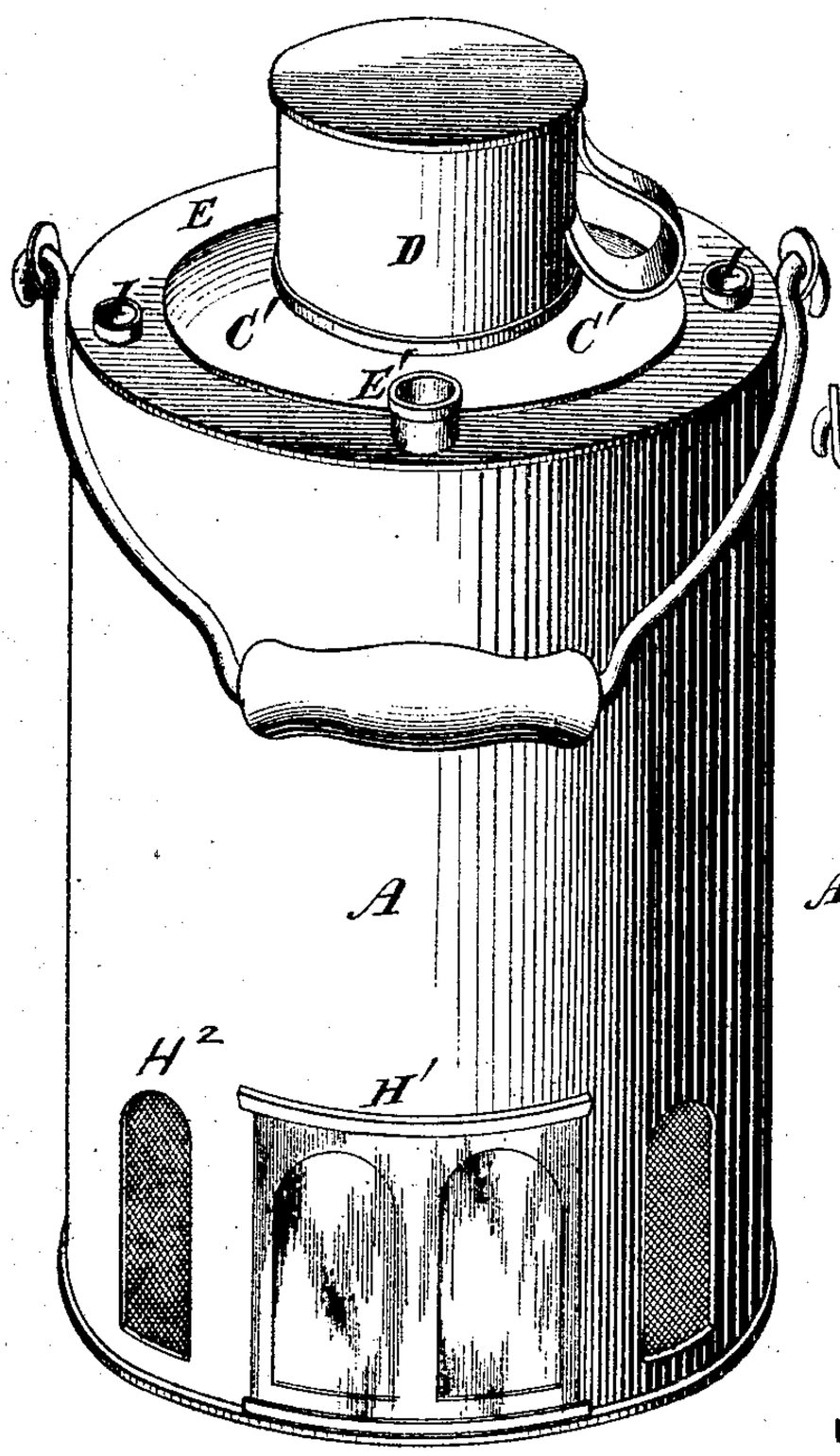
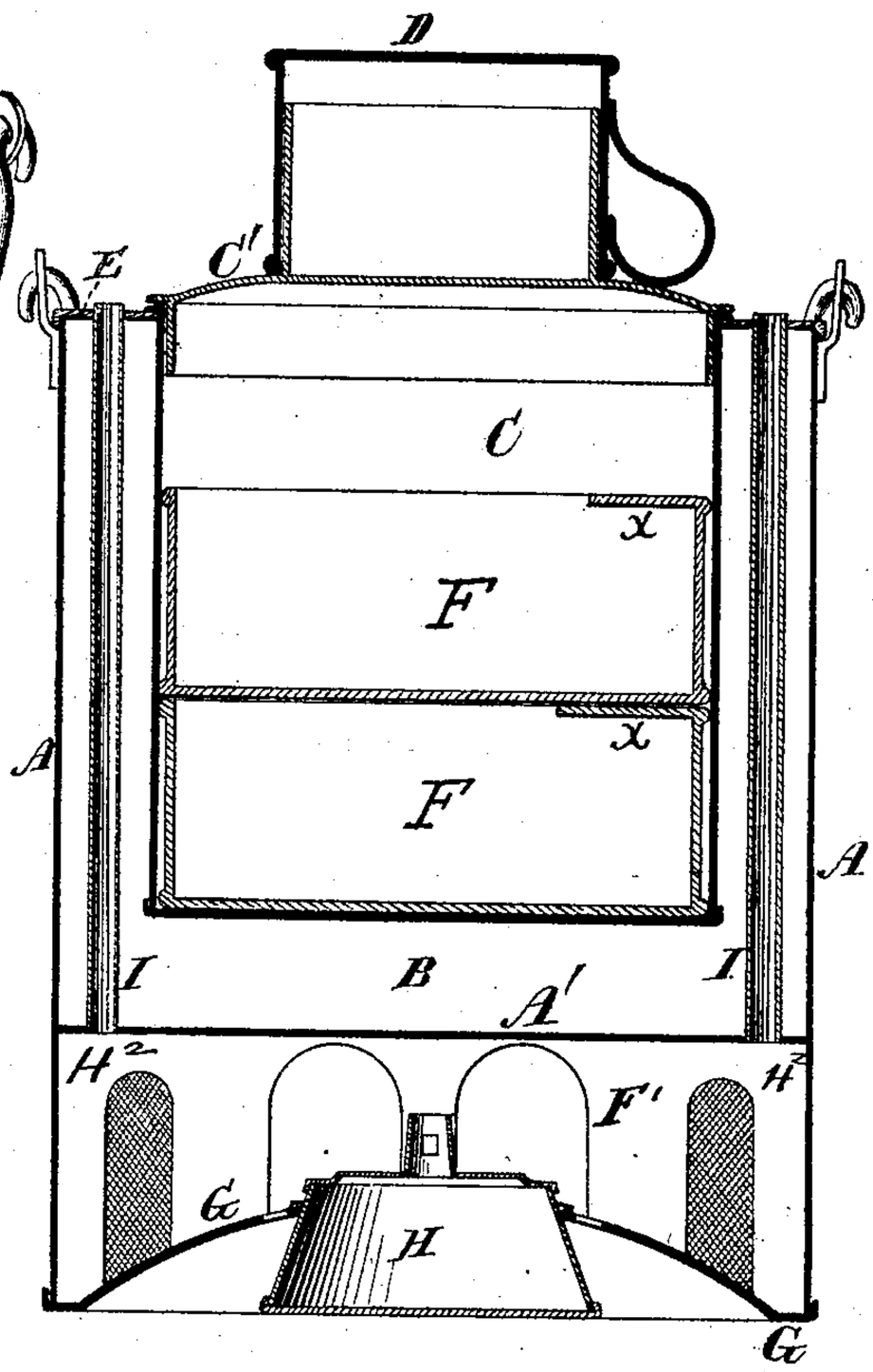


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

PHILLIP HIEN, OF ROCK ISLAND, ILLINOIS.

IMPROVEMENT IN DINNER-PAILS.

Specification forming part of Letters Patent No. **146,906**, dated January 27, 1874; application filed December 30, 1873.

To all whom it may concern:

Be it known that I, PHILLIP HIEN, of Rock Island, in the county of Rock Island and State of Illinois, have invented an Improvement in Dinner-Pails, of which the following is a specification:

Figure 1 is a perspective view of my improved pail, showing the end of the tube for inserting the liquid to be heated, two of the flues for the escape of the gases from the lamp, the door for arresting the same, and the perforated plates for the introduction of air to the lower chamber; and Fig. 2 is a sectional elevation, showing the arrangement of the flues, the liquid-reservoir, the cups or pans within such reservoir, the lamp in position, and the drinking-cup upon the cover.

Corresponding letters denote corresponding parts in both of the figures.

This invention relates to dinner-pails, such as are used for containing food and drink, which, when the dinner or meal has arrived, may be heated without being removed therefrom; and it consists in certain novel features which will be more fully explained hereinafter.

In constructing devices of this character, I use an outer cylindrical case, A, of tin or any other suitable metal, it being of sufficient length to admit of there being formed in it a reservoir, B, for containing coffee or other liquid, said reservoir extending from the diaphragm A′ to the upper end or head of the pail. Within the reservoir B there is placed vessel C, the lower end of which is closed by a head, while its upper end is covered by a removable cap or cover, C′, which has upon its upper surface a projecting flange for the reception and retention of a drinking-cup, D. That portion of the upper end of the pail which is outside of the vessel C is covered by a fixed annular head, E, which is secured to the wall A of the pail and to the vessel C, and forms the upper head of the liquid-reservoir B, its lower head consisting of the diaphragm A′. Upon the upper surface of the fixed head E, there is placed a nozzle, E′, through which the liquid may be poured into and out of the reservoir B. Inside of the vessel C removable pans F F are inserted, the lower one resting upon the bottom of such vessel, and the next of the series upon the lower one. These pans are for the reception of food, which will be warmed by heat radiated through the sides of the vessel C from the liquid in the reservoir B, below which there is a chamber, F′, formed by the lower portion of case A, the diaphragm A′, and the lower concave head G of the pail, in which there is formed an aperture for the reception of the lamp H, the burner of which is within the chamber F′, its lower end extending down to the lower end of the pail. This lamp is provided with pins or other suitable devices for securing it to the head G of the pail, and it may be provided with any number of burners that may be desired. The chamber F′ is provided with sliding doors H′ H′, in which sheets of mica are placed, in order that the light from the lamp may be transmitted through them, and thus the device be made to serve the purpose of a lantern. These doors may be made of any required length, and provided with any number of sheets of mica, according to the diameter of the chamber to which they are attached. In order that air may be admitted to the lamp H, for supporting the combustion of the material burned, plates of perforated metal, or sheets of fine wire-gauze, H^2, are inserted between the doors H^1 in the wall of chamber F′, through which such air may pass; and in order that any gases which may be generated by the flame or flames of the lamp may be passed off into the atmosphere, tubes I I are placed in the liquid-reservoir B, which extend through the diaphragm A′, and up through the fixed portion of the upper bed of the pail, through which such gases may pass, in doing which they will impart their heat to the liquid contained in the reservoir. In the case, as presented, there are only two tubes shown for conducting off the gases, but it is apparent that any number may be used that may be found desirable. Should it be desired, the upper fixed head of the pail may be made convex, and a greater degree of convexity may be given to the cover C′, the effect of which would be to give a greater space within vessel C, but would not affect the other parts of the pail.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A dinner-pail having an annular liquid-

reservoir with tubes passing through it for the passage of gases from the lamp, a food-vessel placed within the liquid-reservoir for the reception of pans, a separate chamber below the liquid-reservoir, and a lamp for heating the contents of the pail, the parts being constructed and arranged substantially as and for the purpose set forth.

2. The combination, in a dinner-pail, of the case A, vessel C, pan F, annular fluid-reservoir B, vertical flues I I, and a chamber, F′, having doors H^1 H^1, and gauze-covered apertures H^2, the parts being constructed and arranged substantially as and for the purpose set forth.

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

PHILLIP HIEN.

Witnesses:
LUCIAN ADAMS,
CHAS. W. O'NEIL.