F. ZUGG.

DINNER-BUCKET AND COOKER.

No. 177,978. Patented May 30, 1876.

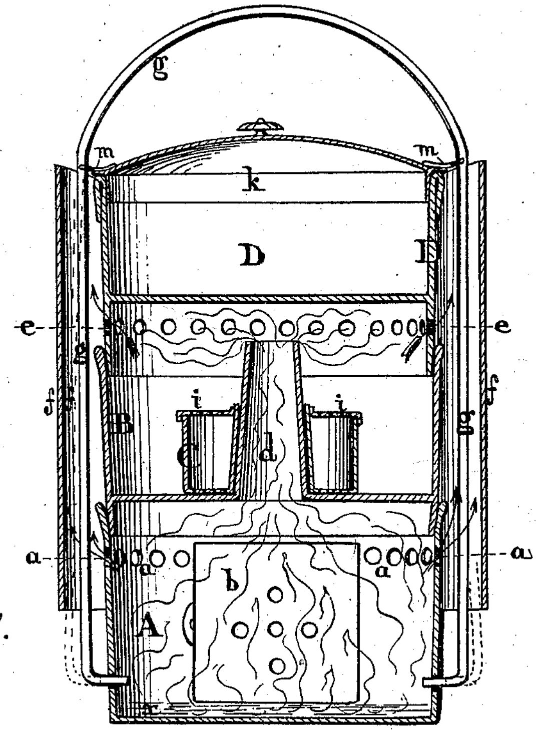

Fig. 1.

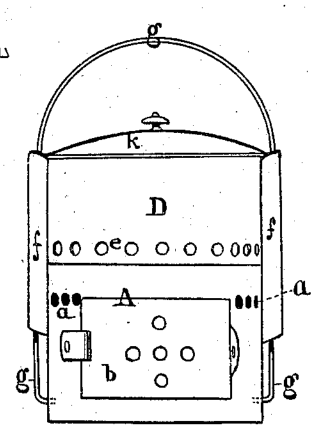

Fig. 3.

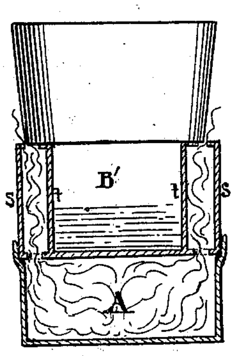

Fig. 4.

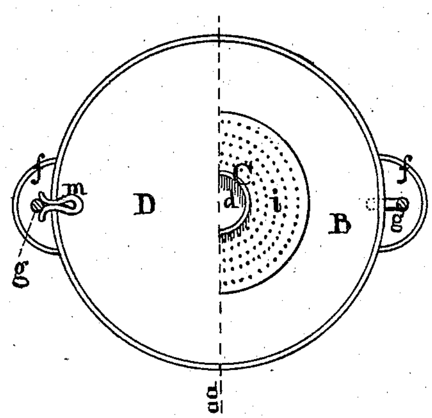

Fig. 2.

Witnesses.

Mark W. Fontenaye

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UNITED STATES PATENT OFFICE.

FLORIAN ZUGG, OF PEORIA, ILLINOIS.

IMPROVEMENT IN DINNER BUCKETS AND COOKERS.

Specification forming part of Letters Patent No. **177,978**, dated May 30, 1876; application filed April 15, 1876.

To all whom it may concern:

Be it known that I, FLORIAN ZUGG, of the city of Peoria, in the county of Peoria, and in the State of Illinois, have invented a Convertible Dinner Bucket (or Heater) and Cooker; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a central vertical section; Fig. 2, a sectional horizontal view of upper vessels B C D; Fig. 3, elevation of the parts used as a dinner-bucket, and for warming such meal; Fig. 4, another form of cooker, with side or circumferential flue in place of the central flue.

The object of this invention is to furnish a dinner-bucket adaptable to warm food, that shall be convertible into a cooking-pot, including a coffee-strainer, in which the fuel is alcohol, gasoline, or kerosene, burnt without the use of a wick, in the furnace at the bottom; second, to aid the combustion of such liquid fuel in such manner, the employment of a central pipe or side chimneys, into which the smoke (what little there may be) is drawn in such a manner that the flame is not suffocated.

It consists, when used as a dinner bucket or heater, first, of a lower furnace; and, second, a superimposed bucket, which slips into the furnace; and consists, when converted into a cooking-pot, third, of a third (intermediate) vessel fitting into the furnace below, and receiving the dinner-bucket above. This removable intermediate vessel has a central flue or draft-pipe, opening upward vertically through the bottom, for the passage of flame or heat to the dinner-bucket above, which flue or pipe is surrounded by a removable annular perforated vessel or coffee-strainer, which may be removed when the containing-vessel is required for other purposes, (heating or cooking.) The side chimneys may be substituted by providing the furnace or the middle vessel B with an interior cylindrical box, connected above with a perforated horizontal ring covering the space between the outer and inner box, so as to conduct the heat and flame between said surfaces to a vessel above. (See Fig. 4.)

In the drawings, which represent one of the best forms in which I construct my invention, A is the furnace, composed of a flat bottom and oval or annular sides, perforated in several places, *a a a*, particularly behind the chimneys *f f*, for the creation of a draft, and for the escape of gas and flame when the match or fire is first applied to the burning-fluid. In this furnace the heating-fluid is poured into the open bottom *x*, or it may, if preferred, be retained in a shallow cup or dish, one-twelfth of a pint being sufficient to heat liquids or warm food. B represents cooking-vessel, which can also be used as a coffee-pot, and is placed between the vessels D and A, or it may be used without D. It sits in the furnace and has a central flue or vertical passage, *d*, through its bottom, which conducts heat to the bucket D above it. C, an annular cup, for ground coffee or tea, having a central inclosed aperture, which fits over the vertical flue *d* just described. It is further provided with a perforated removable cover, *i*. The vessels B and C can be dispensed with when not required for cooking the food to which they are adapted. D represents the dinner-bucket, both for heating and cooking, sitting in the vessel B or in the furnace A at pleasure, and provided with lid *k* of the usual form. To the opposite sides of this upper vessel D is permanently attached two lateral vertical chimneys, *f*, of semicircular section, open at top and bottom, and extending in the latter direction below and on either side of the middle vessel B, down beyond the upper vent-holes *a* in the furnace, to receive draft from said holes and create a current to carry up smoke, which would prevent the fluid from burning properly. A bail, *g*, having two legs, passes downward through each chimney, each being adjustably attached to the sides of the furnace A by means of their bent extremities, which, respectively, pass into small holes made for that purpose in said furnace. The upper part of the bail is steadied in the forks *m m* on either side of the cup D, which project from the latter.

The operation of this convertible dinner-bucket or dinner heater and cooker is as fol-

lows: When solid food only is to be warmed, the vessel D may be placed on top of the furnace A, the middle vessel B, with its coffee-strainer C, being removed. The chimneys *f f* pass downward on each side of said furnace, covering and receiving from the apertures *a a* smoke, and creating sufficient draft to keep the fuel from being smothered by its own smoke. A sufficient quantity of alcohol, gasoline, or kerosene is poured into the bottom of the furnace, spreading all over its surface, the fire or light is applied, and the perforations in the sides of same and the door *b* allow the sudden explosion of gas to escape without injury. The door is then closed, and the flame does its work; and, as before mentioned, one-twelfth of a pint does the work of boiling and making coffee or tea, more being used in proportion to the amount of time required in cooking solids. In heating with kerosene a cover may be used upon the vessel B, with an opening in the center, to allow the flue *d* to pass upward, so that the fumes of combustion do not taint the food.

To make coffee or tea, the annular perforated cup C is filled with tea or ground coffee, and the annular cover *i* placed upon it is placed in the vessel B, so that the flue *d* passes through the center of said vessel C. The water in B being first properly heated, the cup retains the leaves or coffee, and keeps the infusion clear.

Fig. 4 represents a vertical section of another form of the middle vessel B, where, instead of the flame passing up a central flue, it goes up between the outer and inner walls *s t*, entering through a circle of holes, *u u u*, made in the connecting horizontal rims, which join the walls above and below, and passing upward to heat the bucket D, or a sauce-pan resting on it.

What I claim as my invention is—

1. The bucket D, provided with two lateral chimneys, *f f*, extending downward to and over the surface of a slip-furnace below for the purpose of carrying gases, which would extinguish the burning-fluid below in the furnace, substantially as and for the purposes described.

2. The combination of the bucket D, provided with side chimneys *f f*, with the furnace A, substantially as and for the purposes described.

3. The combination, with the bucket D, provided with the chimneys *f f*, of a middle vessel, having a vertical passage for heat from a furnace below to said bucket above, substantially as and for the purposes described.

4. The combination of the bucket D, provided with lateral chimneys *f f*, the vessel B and furnace A, substantially as and for the purposes described.

5. The combination, with the vessel B, of the perforated vessel C surrounding the flue *d*.

6. The combination and arrangement of the bail *g* with chimneys *f f*, and furnace A, as described.

In testimony that I claim the foregoing, I have hereunto set my hand this 6th day of April, 1876.

FLORIAN ZUGG.

Witnesses:

JAMES M. MORSE,

CLARENCE THURLOW.