

No. 822,402.

PATENTED JUNE 5, 1906.

J. W. SUMMERS.
LAMP HEATER.

APPLICATION FILED MAR. 28, 1905.

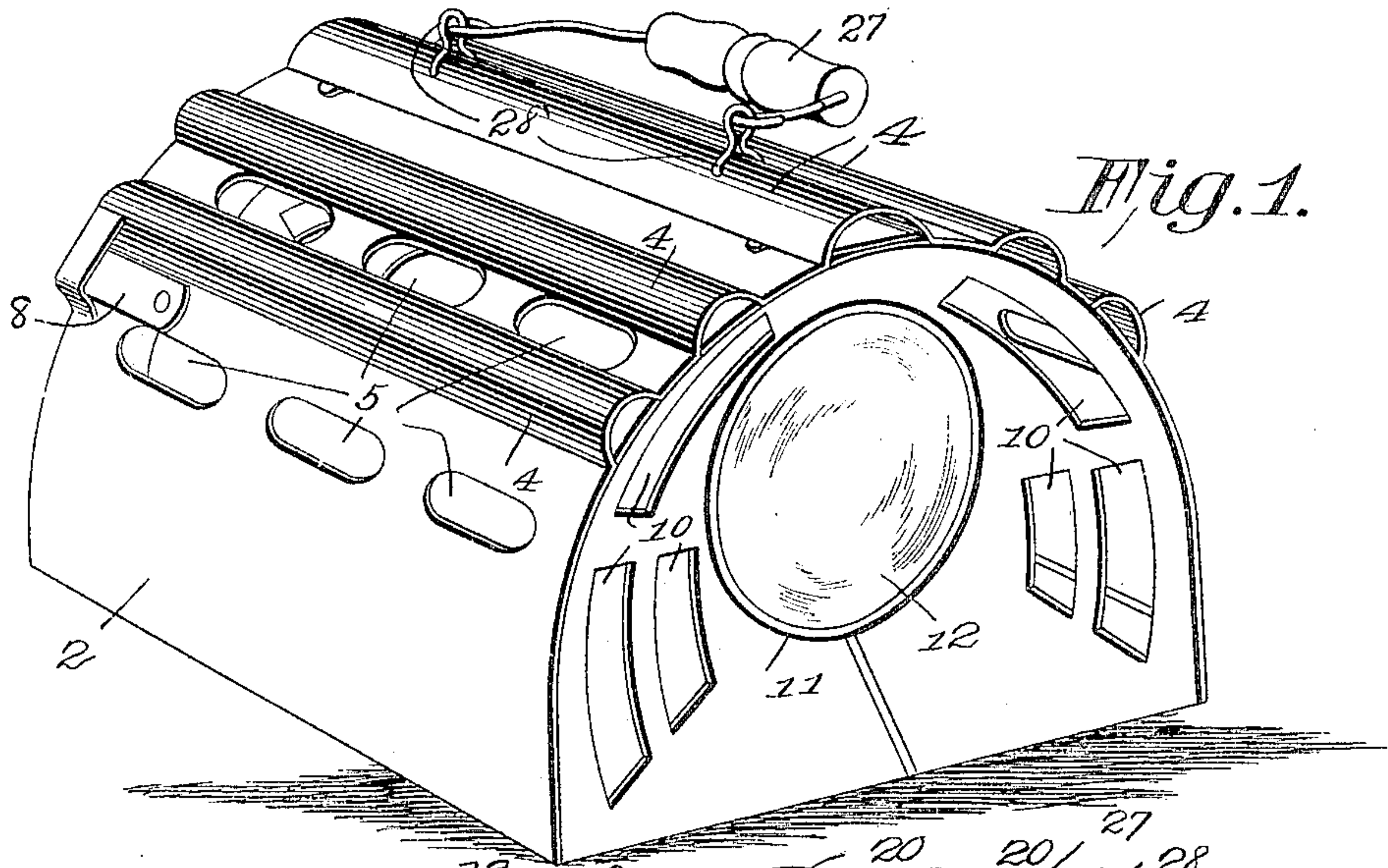


Fig. 2.

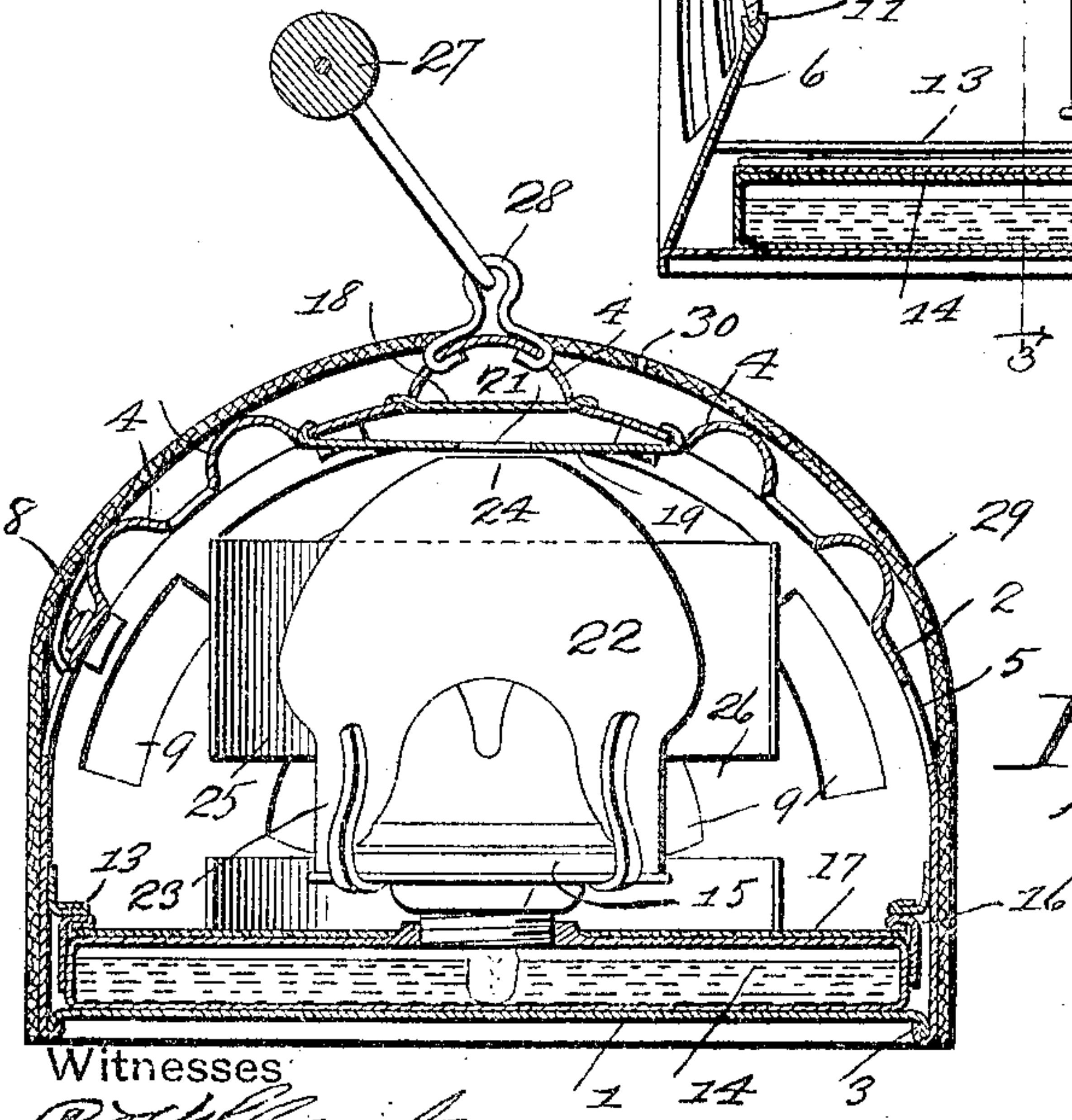
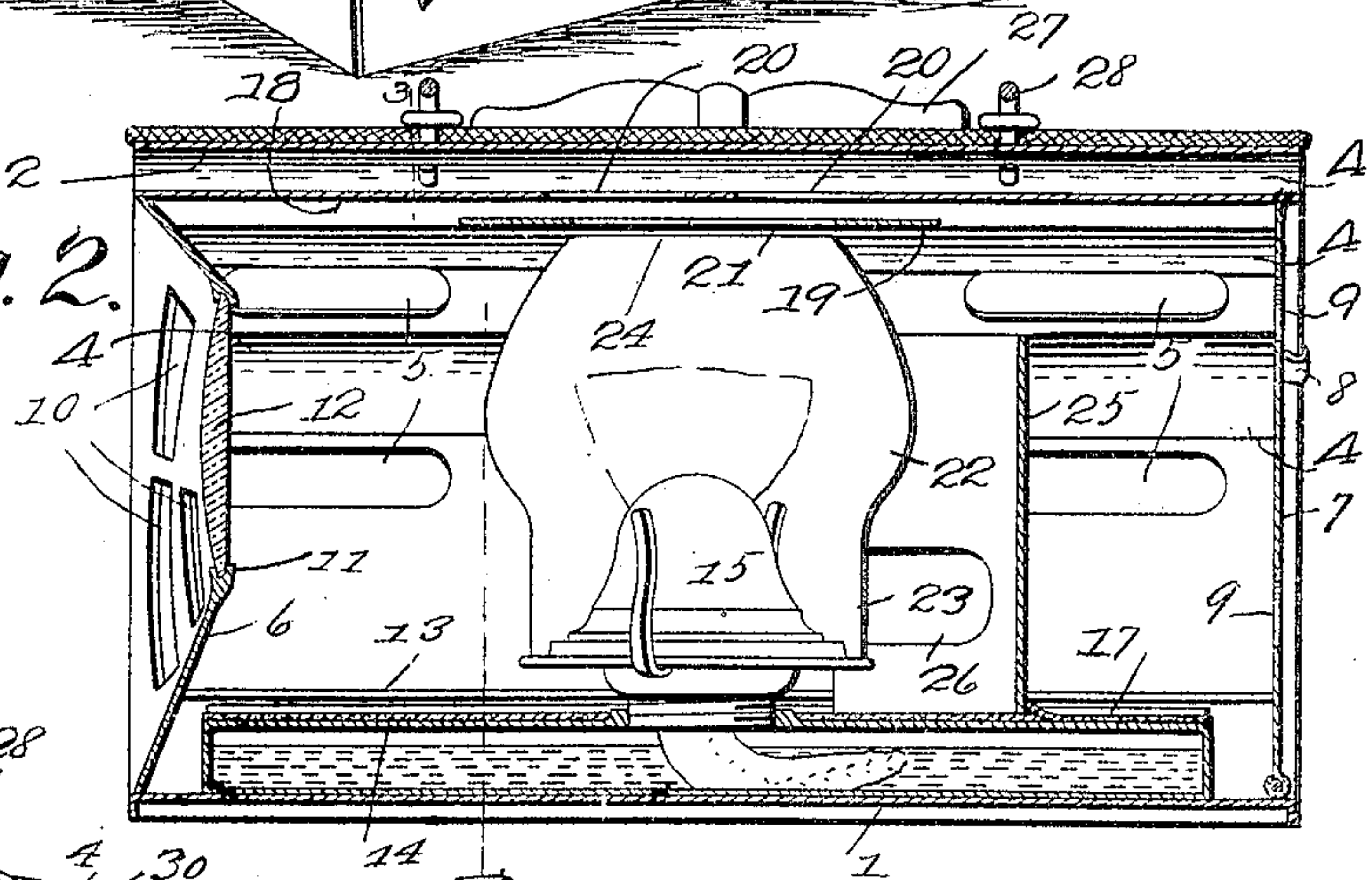


Fig. 4.

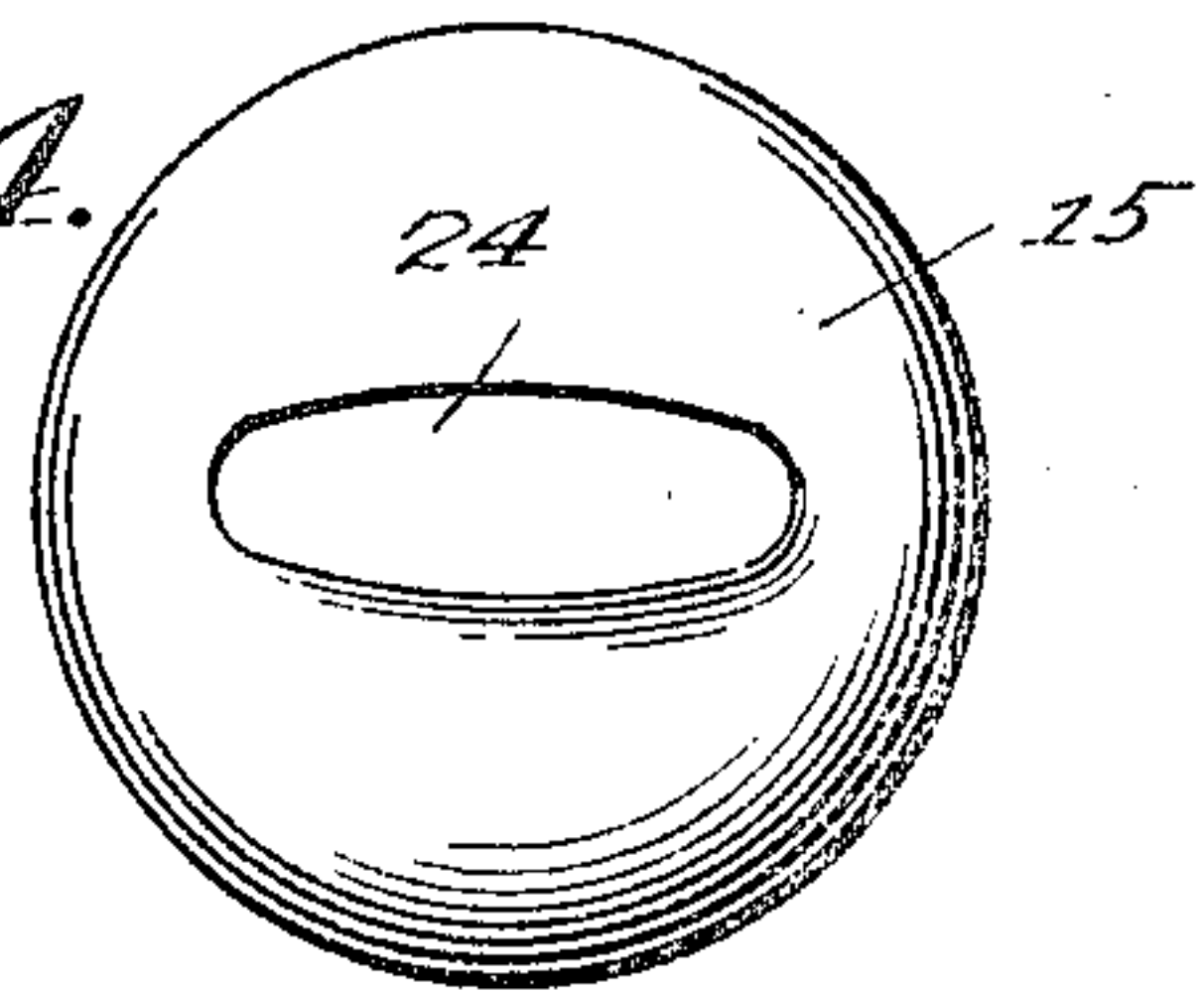


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN WM. SUMMERS, OF MATTOON, ILLINOIS.

LAMP-HEATER.

No. 822,402.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed March 28, 1905. Serial No. 252,570.

To all whom it may concern:

Be it known that I, JOHN WM. SUMMERS, a citizen of the United States, residing at Mattoon, in the county of Coles and State of Illinois, have invented a new and useful Lamp-Heater, of which the following is a specification.

This invention relates, broadly, to lamp-heaters—that is to say, heating devices wherein the heat is provided by a lamp which is also capable of being used for illuminating purposes.

More specifically, the invention relates to that class of heaters or lamp-stoves which are used as foot-warmers—as, for instance, in buggies and other vehicles—the object of the invention being to simplify and improve the construction of this class of devices. Other objects are to provide a device of this class which may be used and handled with perfect safety and which may be set down in any place without danger of overturning or being upset, to provide a construction whereby the device may be conveniently carried in the lap of a person and utilized as a hand-warmer, to provide for the circulation and distribution of heat, and to provide for the perfect utilization of the light as well as the heat of the flame.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of embodiment of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that the right is reserved to any changes, alterations, and modifications to which recourse may be had within the scope of the invention and without departing from the spirit or sacrificing the efficiency of the same.

In said drawings, Figure 1 is a perspective view of a lamp-heater constructed in accordance with the principles of the invention. Fig. 2 is a longitudinal vertical sectional view of the same. Fig. 3 is a vertical transverse sectional view taken on the plane indicated

by the line 3 3 in Fig. 2. Fig. 4 is a top plan view of a lamp-chimney or flue used in connection with the invention.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

The casing of the improved lamp-stove is composed of a flat rectangular bottom 1 and a curved approximately semicircular member 2, constituting the top and sides and connected at its edges with downturned flanges 3 at the edges of the bottom member, which latter is thereby slightly raised from contact with the floor. The member 2 is provided with longitudinal flutings or corrugations 4, extending throughout its length, and the interspaces between said flutings are provided with ventilating-openings 5. Additional openings 5 may be provided between the outermost corrugations and the lower edges of the member 2.

One end of the casing is closed by an end member 6 of approximately semicircular shape to fit the contour of the body of the casing with which it is connected along the edge of the bottom and along the edge of the member 2 inside of the flutings or corrugations 4, the connection between the end member 6 and the member 2 being established along the interspaces between the corrugations, which latter, as will be clearly seen in the drawings, are open at both ends, the opposite end of the casing being closed by a door 7, which is hingedly connected with the bottom plate 1, said door being likewise of a shape to correspond with the contour of the casing along the interspaces between the corrugations of the member 2, a catch 8 of suitable construction being provided for the purpose of retaining the door in closed position. The door 7 is provided with a plurality of apertures 9, and the end member 6, which is likewise provided with apertures 10, is offset in an inward direction and provided with a central opening 11, in which is fitted a glass or bull's-eye 12.

The casing is provided upon the sides thereof with interiorly disposed longitudinal guides 13 for the purpose of securing and confining a shallow oil-reservoir 14, provided with a burner 15 of ordinary construction. The reservoir 14 is provided along its edges with flanges 16, serving to retain in position a

sheet 17 of asbestos or other suitable non-conductive material for the purpose of preventing overheating the contents of said reservoir.

5 Secured within the casing beneath the central longitudinal fluting 4 is a plate 18, and arranged centrally beneath and spaced from the latter is a deflector 19, said plate 18 and deflector 19 being provided with openings 20
10 21 for the passage of products of combustion. The opening 21 is of oblong or rectangular shape. In the plate 18 two or more openings may be formed longitudinally in said plate above the deflector. The chimney-flue 22,
15 used in connection with the burner 15, is provided at its lower edge with a cylindrical burner-engaging flange 23, and the body of said flue is circular in cross-section for the greater portion of its length, the upper portion being, however, flattened, so as to provide an oblong aperture 24 for the escape of the products of combustion, said oblong aperture being obviously placed in alinement with the oblong aperture 21 in the deflector 19.
20 Upon the upper side of the reservoir 14 is secured a curved or approximately semicircular shield 25, which is interposed between the burner and the door 7, said shield serving also as a reflector, the inner surface thereof
25 being brightly polished. This combined shield and deflector is provided with slots or notches 26 near the lower edge thereof, so as to prevent said shield from altogether obstructing the passage of air through the apertures in the end door to the burner, which is thereby provided with the oxygen necessary to support combustion.

The top of the casing is provided with a handle 27, suitably connected therewith by
40 means of loops or staples 28. The casing is also provided with a surrounding covering 29, of carpeting, cloth, felt, or other suitable material, which serves to prevent the scorching of shoes, overshoes, gloves, or the like by direct contact with the casing when the latter is excessively heated. This covering also serves to prevent injury to the buggy-box in which it may be placed. The covering 29 is provided with a slit, as 30, through which the
50 hands may be inserted for direct contact with the casing in case of necessity.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this
55 invention will be readily understood by those skilled in the art to which it appertains. The construction of the device is simple and inexpensive. The flutings or corrugations 4 constitute a series of flues through which air heated by the lamp will be permitted to circulate. The central flue 4, in conjunction with the plate 18, forms a special flue through which the products of combustion are dis-

posed of without smoke or odor, the space between the plate 18 and the deflector 19
65 forming what may be termed an "auxiliary" combustion-chamber, where all combustible gases are consumed. Apart from its obvious advantages as a heater the device is quite as useful for illuminating purposes. It may be
70 safely placed upon a stable-floor to provide light for hitching. When carried in the vehicle, it may be placed upon the seat adjacent to the occupant or in the lap of the occupant for the purpose of illuminating the
75 road ahead, while at the same time it serves as a hand and body warmer. Its compact and simple construction enables it to be readily shifted about, as may be desired, and even when roughly used the glass or bull's-
80 eye will be protected against breakage by being offset within the casing, as described.

The corrugations 4 constitute flues by which the heat generated within the casing is circulated and distributed, the walls of the
85 flues constituting radiating-surfaces.

Having thus described the invention, what is claimed is—

1. In a lamp-heater, an approximately semicylindrical casing having external cor-
90 rugations forming horizontally-disposed flues connecting with the interior of the casing, and apertures between said corrugations.

2. In a device of the class described, a casing-body having horizontal corrugations
95 spaced apart and forming flues communicating throughout their lengths with the interior of the casing, and an end member connected with the body along the line of the interspaces between the corrugations. 100

3. In a lamp-heater, a casing having a horizontal flue open at both ends, said flue being composed of a corrugation in the casing and a plate supported adjacent to said cor-
105 rugation, said plate being provided with an oblong slot, in combination with a lamp supported within the casing and having a chimney-flue, and a slotted or apertured deflector supported between the chimney-flue and the casing-flue. 110

4. In a lamp-heater, a casing corrugated to form a longitudinal groove, open at both ends, in combination with a plate secured to the casing adjacent to said groove and forming a smoke-conducting flue, said plate being
115 provided with a slot; and a lamp disposed within the casing.

5. In a lamp-heater, a casing having longitudinal corrugations spaced apart and open
120 at both ends and apertures in the interspaces between the corrugations, in combination with a non-conductive covering supported upon the corrugations and spaced thereby from the apertured portions of the casing.

6. In a lamp-heater, a casing having longi-
125 tudinal corrugations open at both ends and

provided with apertures in the interspaces
between the corrugations, in combination
with a flexible covering supported upon the
corrugations and spaced thereby from the
5 apertured portions of the casing; said cover-
ing being provided with a slit or opening.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature
in the presence of two witnesses.

JOHN WM. SUMMERS.

Witnesses:

ED. SUMMERS,

A. T. SUMMERS.