(No Model.)

J. J. JOHNSTON.

AIR HEATING ATTACHMENT FOR LAMPS.

No. 433,474. Patented Aug. 5, 1890.

Fig. 1.

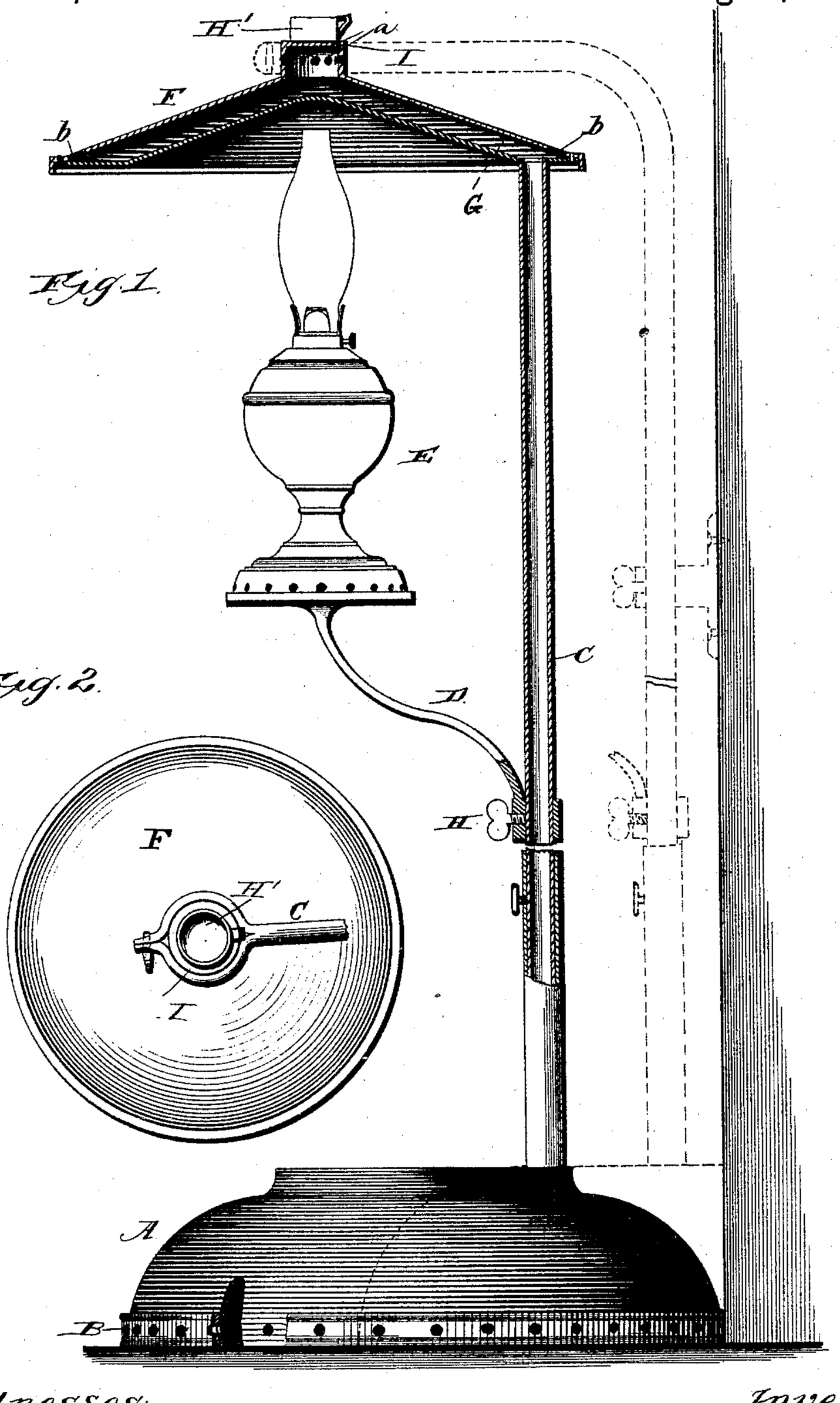

Fig. 2.

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UNITED STATES PATENT OFFICE.

JAMES J. JOHNSTON, OF COLUMBIANA, OHIO.

AIR-HEATING ATTACHMENT FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 433,474, dated August 5, 1890.

Application filed November 26, 1889. Serial No. 331,601. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. JOHNSTON, a citizen of the United States, residing at Columbiana, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Air-Heating Attachments for Lamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to attachments for lamps, and has for its object the lighting and heating of rooms in dwellings, offices, churches, hospitals, and workshops by circulating the air therein over a heated surface in the manner and by the means hereinafter described. The coldest air is always next to the floor in a room and the warmest air next to the ceiling. Therefore, if the air in the room is circulated and caused to pass over a heated surface the temperature of the air will soon be uniform and of any desired degree if the instrumentalities for heating the air are proportioned to the volume of air to be circulated and heated.

The invention will be first described, and then particularly pointed out in the claims.

In the accompanying drawings, which form part of this specification, Figure 1 is a side elevation, partly in section, illustrating my invention, and Fig. 2 a plan view of the reflector and heater detached from the lamp-standard.

Reference being had to the drawings and the letters thereon, A indicates a hollow base having a register-ring B thereon for regulating the supply of air. The base A should be of sufficient diameter and weight to support the hollow standard C, bracket D, lamp E, and the combined reflector and heater F without liability of upsetting, and the standard C should be attached to the base in such position that the center of gravity of the standard, the lamp, and the reflector and heater will be central to the diameter of the base, as shown, whereby the liability of upsetting will be greatly diminished. The base A may be provided with casters to facilitate its transportation from one part of a room to another where the light may be required. The base communicates with the hollow standard C, and the latter with the chamber G in the reflector and heater. The lamp E may be of any approved construction; but preference is given to the Argand type, as such lamps burn with the most perfect combustion and evolve the greatest amount of heat. The standard C may be made in telescopic sections, as shown, to accommodate the heater to different heights of ceilings, and the bracket D is adjustable on the standard and secured in position by a thumb-screw H. The hollow base A, its register-ring B, and hollow standard C may be of any desired contour and may be made highly ornamental. The lower side of the reflector and heater is by preference constructed of copper, and is closed, except where it communicates with the standard C, and the heated air escapes from the chamber G through apertures *a* at the top of the reflector and heater.

A modified construction is shown in dotted lines, whereby the standard C may be secured to a wall or side of a room. In this construction the reflector and heater F is secured to the standard C at the top of the former and air supplied through the apertures in the base, and the apertures *a* are closed and apertures *b* provided for the escape of the heated air. The reflector and heater may be applied over a gas-light of ordinary construction.

The construction being substantially as described, the operation is as follows: Cold air, which is next to the floor, enters the apertures in the base A, flows on through the base into the standard C, and from it into the chamber G in the reflector and heater, where the air is heated by the heat from the lamp E, directed by its chimney against the lower side of the reflector and heater F, the heated air passing off from the chamber G through the apertures *a* or *b*, respectively, into the room, whereby the air in the room is set in motion and caused to circulate from the floor to the ceiling, the coldest air being constantly passed through the heating-chamber G of the reflector and heater.

A vessel H′ containing water may be placed on the flat top I of the reflector and heater to moisten the air in the room, or drinks or food may be kept warm, thus adapting the heater for use in a sick room.

Having thus fully described my invention, what I claim is—

1. A heating attachment for a lamp or analogous device for lighting a room of a building, consisting of a double-walled heater supported above the lamp and provided with discharge-apertures and an air-heating chamber between said walls, and a tubular conduit connected with said chamber and extending to or near the floor of the room, substantially as described.

2. A heating attachment for a lamp or analogous device for lighting a compartment, consisting of an air-heater supported above the lamp and provided with an air-heating chamber and discharge-apertures, and a tubular conduit connected to the heating-chamber and extending to or near the floor of the compartment, in combination with a lamp and a support for the lamp under the heater, substantially as described.

3. A heating attachment for a device for lighting a compartment of a building, consisting of a double-walled heater and an extensible conduit communicating with said heater and extending near the floor of the compartment, substantially as described.

4. A heating attachment for a device for lighting a compartment of a building, consisting of an air-heating chamber, and a tubular conduit supporting the heater and supplying air thereto from near the floor of the compartment, in combination with a lamp or analogous device separate from the heating attachment, substantially as described.

5. A heating attachment for a device for lighting a compartment of a building, consisting of an air-heater having a chamber within its walls, in combination with a tubular conduit for supplying air from near the floor of the compartment to said chamber and supporting the heater, and a lighting device separate from the heater and supported by the conduit below said heater, substantially as described.

6. The combination of a hollow base having apertures therein, a tubular conduit secured to said base, a heating attachment supported by and supplied with air through said conduit, and a lamp or analogous device separate from but supported under the heater, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES J. JOHNSTON.

Witnesses:

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