

(No Model.)

2 Sheets—Sheet 1.

W. ADLER & W. J. LEWIS.
OIL STOVE.

No. 582,842.

Patented May 18, 1897.

FIG. 1.

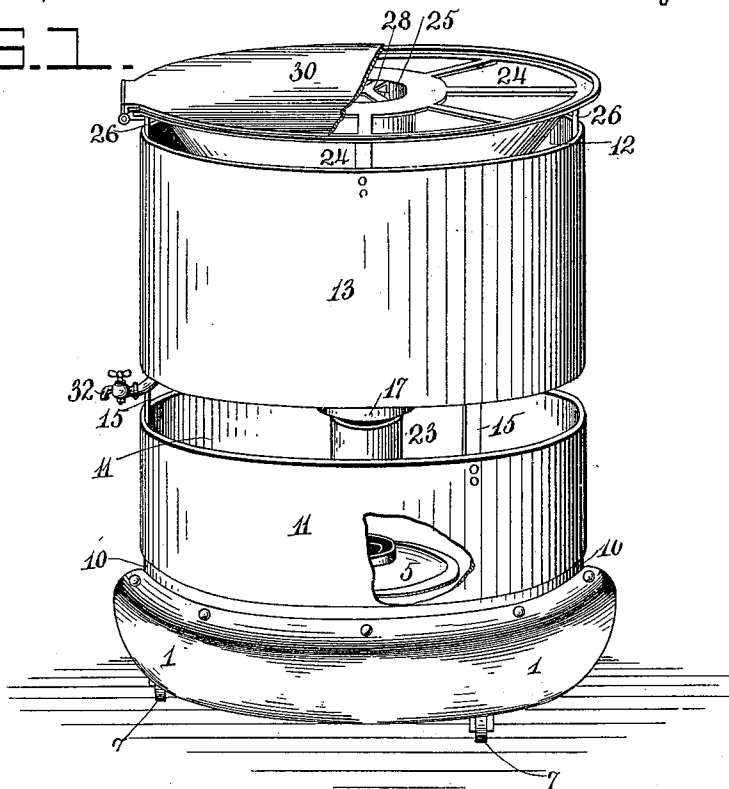
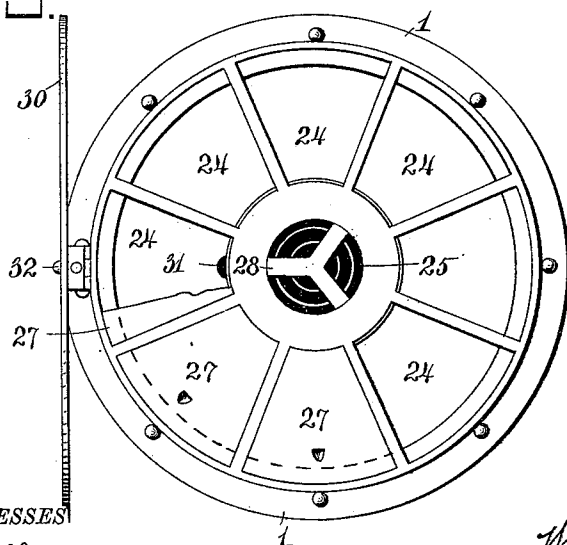


FIG. 3.



WITNESSES

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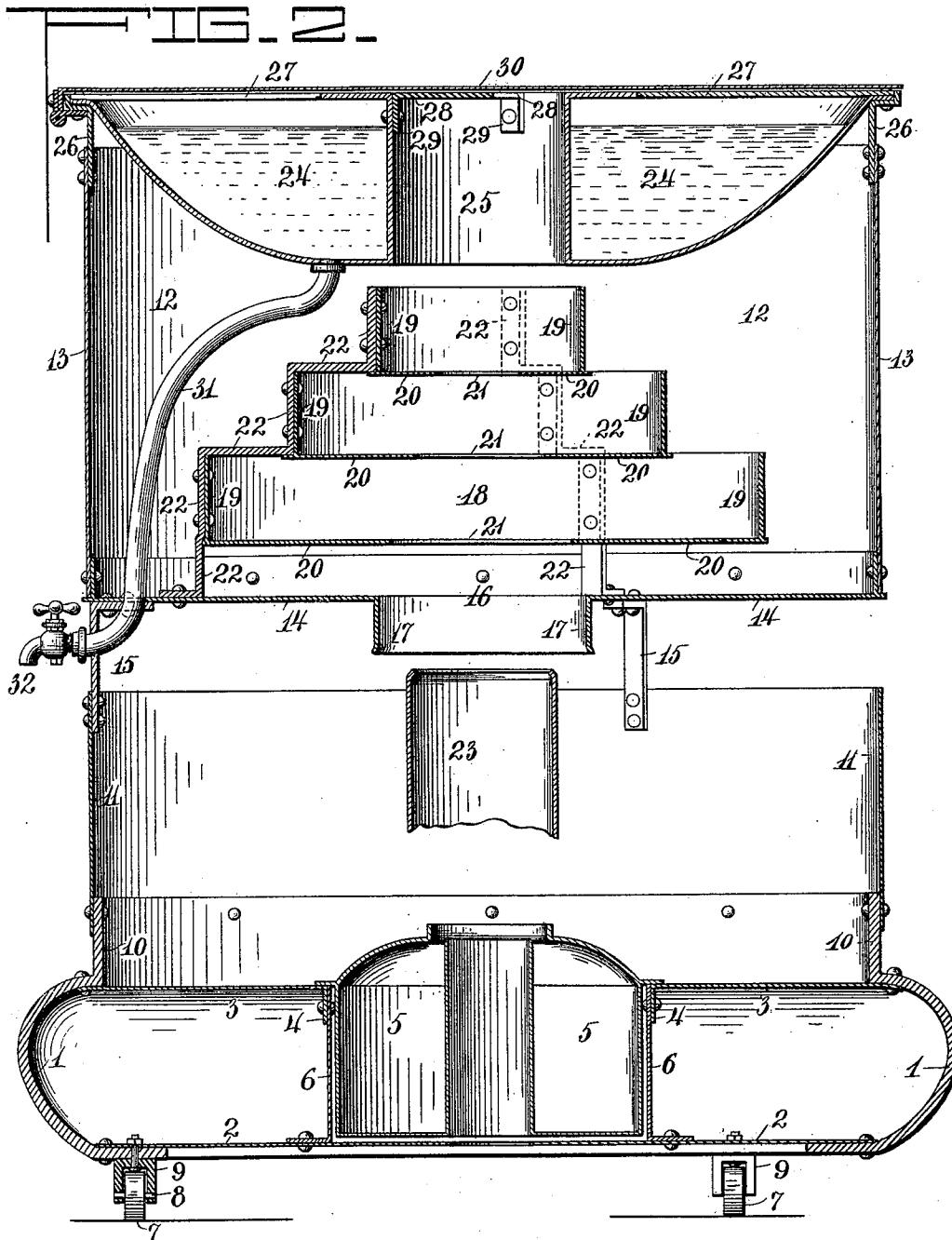
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WILLIAM ADLER AND WILLIAM J. LEWIS, OF PHILADELPHIA, PENNSYLVANIA; SAID LEWIS ASSIGNOR TO SAID ADLER.

OIL-STOVE.

SPECIFICATION forming part of Letters Patent No. 582,842, dated May 18, 1897.

Application filed December 24, 1896. Serial No. 616,911. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM ADLER and WILLIAM J. LEWIS, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Oil-Stoves; and we 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.

This invention relates to oil-stoves, and the object in view is to provide a stove which will neither emit gas, smoke, nor dust, which will be odorless and cleanly, and at the same time combine simplicity, cheapness, and utility in a high degree.

Another object of the invention is to economize in the consumption of fuel and to furnish heat impregnated with the necessary amount of moisture.

To this end the invention consists in an improved oil-stove embodying certain novel features, details of construction, and arrangements of parts, as hereinafter particularly set forth, illustrated in the drawings, and incorporated in the claims hereto appended.

In the accompanying drawings, Figure 1 is a perspective view of the improved stove, the same being partially broken away at top and bottom to show the interior arrangement. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a plan view of the stove with the lid removed.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

The improved heating-stove contemplated in this invention comprises two drums—an upper one and a lower one. The stove, as a whole is mounted upon a suitable base 1, which may be either of cast or galvanized iron and either annular in form or square or rectangular, as may be found most expedient. The base 1 has its open center covered by means of a bottom sheet 2, which is imperforate, and the upper portion of the base 1 has bolted or otherwise secured thereto a second sheet 3, the center of which is left open and flanged, as indicated at 4, to receive an oil-fount 5. Adjacent to the open-

ing in the sheet 3 the latter is supported and braced relatively to the bottom sheet 2 by means of a series of metal straps 6, arranged at intervals around the opening and connecting the sheets 2 and 3, as shown. The oil-fount 5 is removably fitted in this opening, and comprises a center-draft burner having an annular wick of any desired size, according to the size and capacity of the stove. The base 1 is mounted upon rollers or casters 7, journaled on horizontal spindles 8, mounted in spaced depending ears 9, so that the stove may be moved easily from place to place.

The base 1 upon its upper side is provided with an annular upwardly-projecting rim 10, to which is bolted an annular metal sheet 11, constituting the lower drum of the stove. Superposed above the lower drum and spaced at a distance therefrom is an upper drum 12, consisting of an annular sheet 13, the bottom edge of which is joined to a horizontal sheet 14, forming the bottom of the upper drum, and the latter is supported upon the lower drum and held at a distance therefrom by means of metal straps 15, substantially L-shaped and bolted, riveted, or otherwise secured to both drums. The bottom sheet 14 of the upper drum is also provided with a central opening 16, surrounded by a depending annular curb or flange 17, through which the ascending heat passes.

Arranged within the upper drum is a radiator or deflector 18, consisting of a series of rings 19 of different diameters arranged one above the other and provided each at its bottom with a horizontal deflecting-sheet 20, having an opening 21 in its center. The several rings 19 are supported at intervals by means of metal straps 22, bent in zigzag form and suitably secured to the outer surfaces of said rings, the lower ends of said straps resting upon the bottom sheet 14 and being secured thereto. The openings 21 in the deflecting-sheets 20 progressively diminish in size toward the top of the stove, so that as the heat passes through the opening 16 it impinges successively against the sheets 20 and is thereby deflected radially and horizontally, so as to distribute the heat equally to all parts of the upper drum. The burner in the base of the

stove is supplied with a cylindrical-shaped chimney 23, which terminates at its upper end between the two drums, the heat from the burner passing through said chimney and upward into the upper drum, where it is deflected in the manner above described.

In the upper portion of the upper drum is arranged an annular water-fount 24 of segmental shape in cross-section and having an open center forming a shaft 25, through which the heat passes. This fount is supported at its peripheral edge above the top edge of the upper drum by means of L-shaped metal straps 26, as shown, and the open top of the fount 24 is closed by means of a series of covers 27, which may be either hinged, so as to fold back, or made detachable, so that they can be removed.

28 designates a trifurcated rest which is placed in the upper end of the shaft 25 and in the plane of the upper surface of the annular water-fount. The end portions of the branches of the rest 28 are bent downward at substantially right angles, as indicated at 29, and secured to the inner wall of the fount, as shown. This rest serves for a support for any utensil which it may be desired to place thereon for heating water or cooking purposes.

Above the water-fount is arranged a horizontal lid 30, which is preferably hinged at one side to the fount or other convenient point, whereby it may be folded back for giving access to the fount and for enabling utensils to be placed upon the rest 28. A discharge-pipe 31 projects from the bottom of the fount 24 down through the upper drum and passes out between the upper and lower drums, where it is provided with a faucet 32, by means of which the water may be drawn off when required.

From the foregoing description it will be seen that the heat passes from the burner upward into the upper drum, also carrying with it a supply of air admitted between the upper and lower drums. The heat impinges against the radiating or deflecting sheets 20 and is thus distributed to all parts of the upper drum. The water in the fount is thus heated, and as the heat escapes through the annular spaces between the top edge of the upper drum and the annular water-fount it is impregnated with moisture. By throwing back the lid 30 the stove may be used for heating water in a suitable vessel placed upon the rest 28 or for various cooking purposes.

The stove is extremely simple in construction and may be manufactured at low cost, and effects a thorough radiation of the heat. At the same time the heat of the stove emits neither gas nor smoke and is absolutely odorless.

It will be apparent that the shape of the drums may be altered and that they may be made in any desired size, and also that the stove as an entirety is susceptible of many changes in the form, proportion, and minor de-

tails of construction, which may accordingly be resorted to without departing from the spirit or sacrificing any of the advantages of the construction.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a stove, the combination with a heater, of a superposed drum containing a radiator, said radiator comprising a series of deflecting-plates arranged horizontally one above the other and provided with central openings which progressively diminish in size, substantially as described.

2. In a stove, the combination with a suitable heater, of a superposed drum, and a radiator arranged within said drum, said radiator comprising a series of rings of different diameters arranged in different planes one above the other and provided with horizontal bottom sheets having central openings which progressively diminish in size, substantially as described.

3. In a stove, the combination with a suitable heater, of a superposed drum, and a radiator arranged therein and consisting of a series of rings arranged in different planes one above the other and connected at intervals by straps by which said rings are also secured within the drum, said rings comprising bottom sheets having concentric openings which progressively diminish in size, substantially as described.

4. In a stove, the combination with a heating device and a superposed radiator, of an annular water-fount arranged in the upper portion of the stove and comprising a central heating-shaft, said fount being raised above the upper edge of the stove so as to leave an annular air-space, substantially as described.

5. In a stove, the combination with a suitable heater, of a superposed drum, a radiator located within said drum, a water-fount arranged in the upper portion of said drum and supported above the top edge thereof so as to leave an intervening annular space, said water-fount also comprising a central shaft for the upward passage of the heat, and a rest arranged in the upper portion of said shaft, substantially as described.

6. In a stove, the combination with a suitable heater, of a superposed drum, a radiator arranged within said drum, and an annular water-fount arranged in the upper portion of said drum and comprising a central shaft for the upward passage of the heat, movable covers closing the upper side of said fount, and a lid extending over the top of the fount and made movable.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

WILLIAM ADLER.
WM. J. LEWIS.

Witnesses:

THOS. J. WATSON,
C. WILLITS HERMANN.