W. S. SOUTHWICK.

HEATING ATTACHMENT FOR LAMP CHIMNEYS.

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989,657. Patented Apr. 18, 1911.

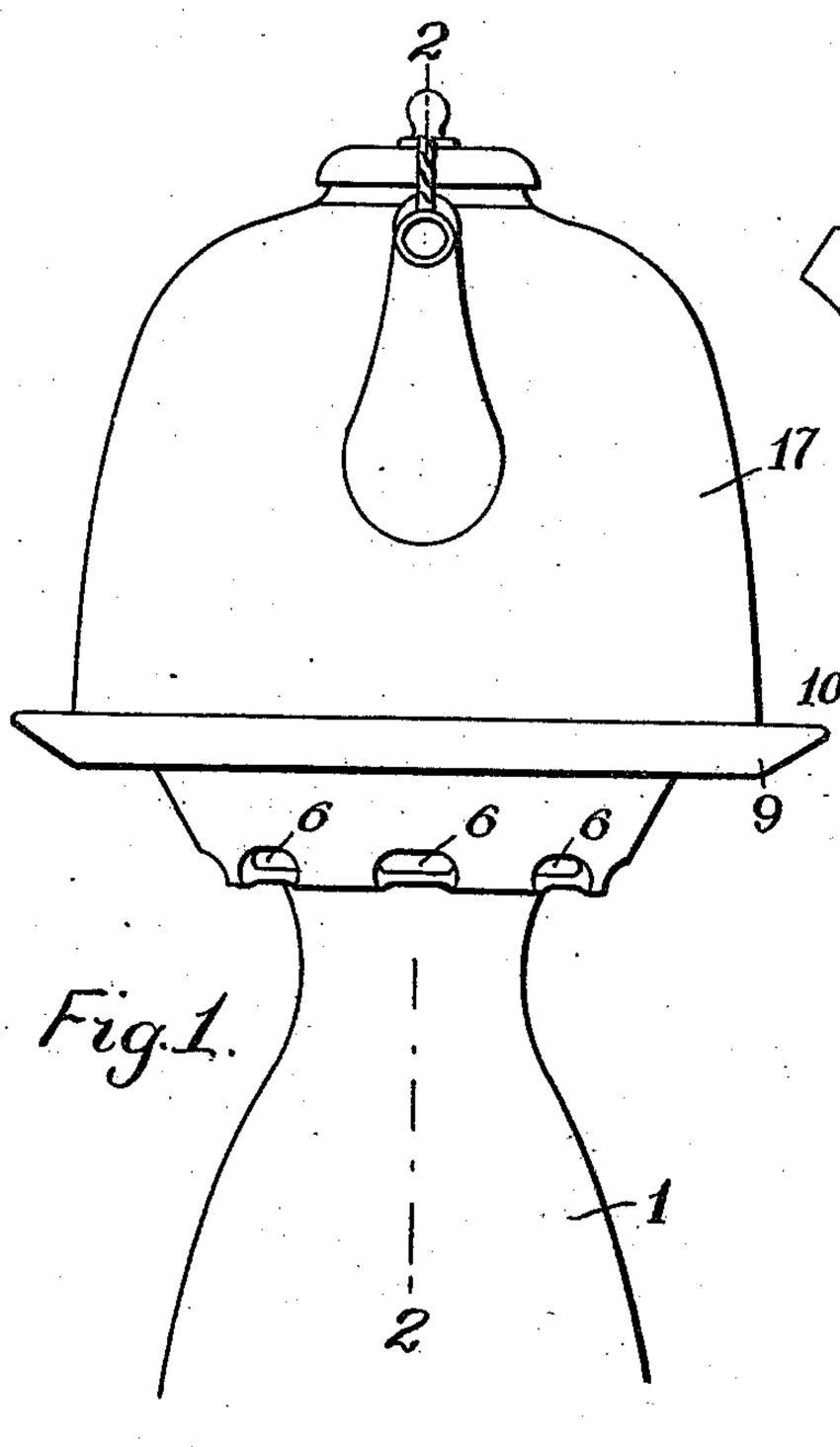


Fig. 1.

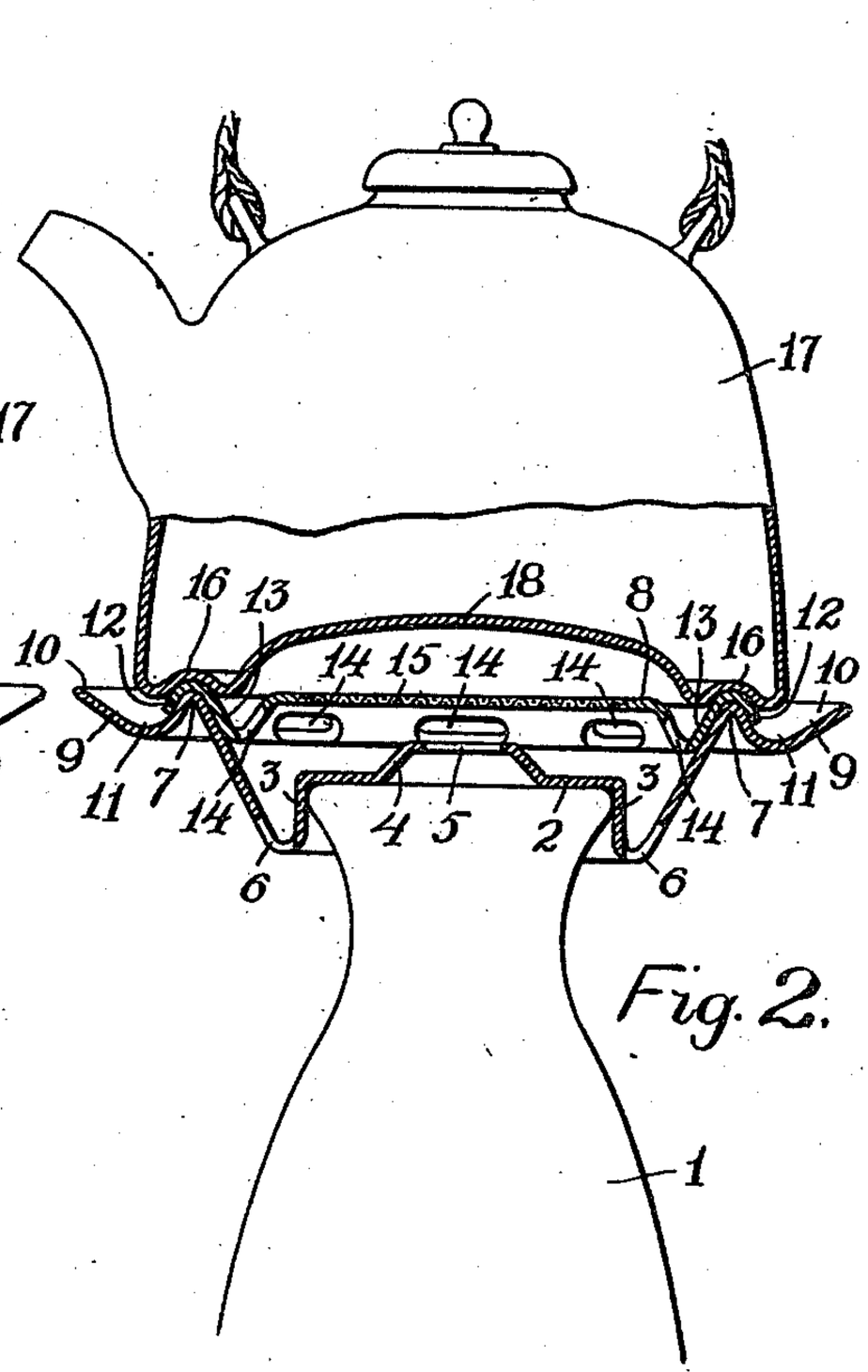
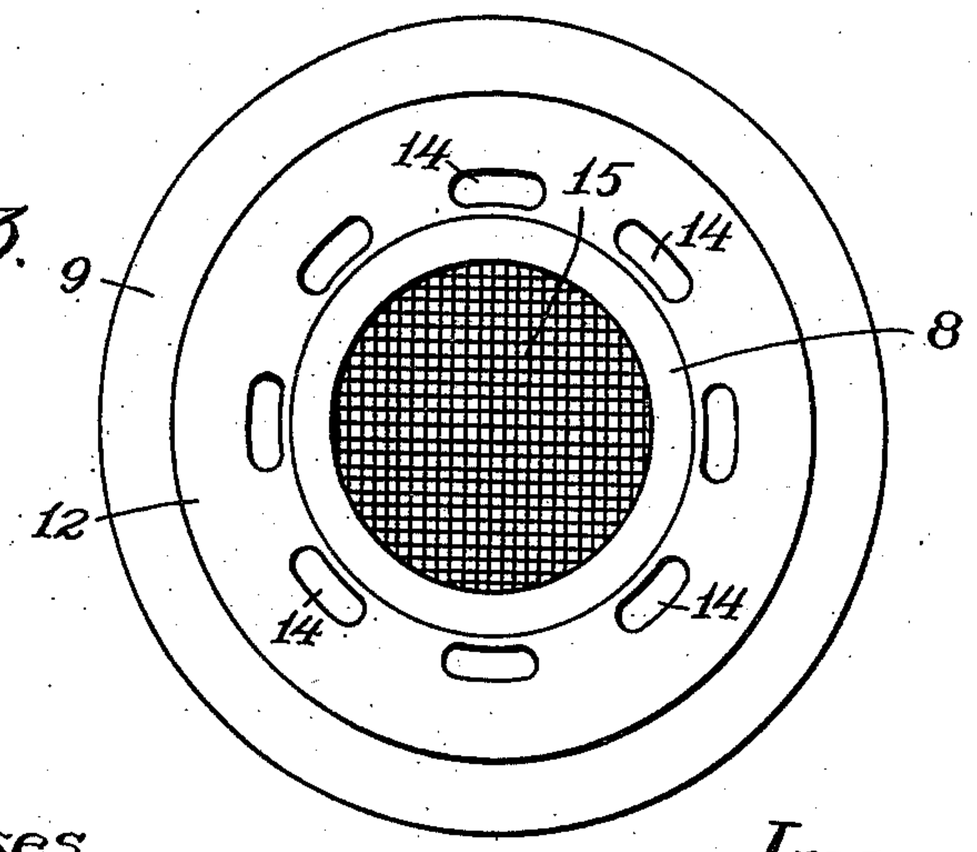


Fig. 2.

Fig. 3.



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HEATING ATTACHMENT FOR LAMP-CHIMNEYS.

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To all whom it may concern:

Be it known that I, WILLIAM S. SOUTHWICK, a citizen of the United States, residing at Mendon, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in Heating Attachments for Lamp-Chimneys, of which the following is a specification, accompanied by drawings forming a part of the same, in which—

Figure 1 is a side view of the upper portion of a lamp chimney, with my improved attachment thereon. Fig. 2 is the same partly in section, on line 2—2, Fig. 1. Fig. 3 is a detached top view of the heat diffusing plate.

Similar reference letters and figures refer to similar parts in the different views.

My invention relates to attachments for the open tops of lamp chimneys, or of other restricted passages for heat, by which the heat passing through a lamp chimney or other passage is utilized to the best advantage, and it consists in the construction and arrangement of parts as hereinafter pointed out and described in the annexed claims.

Referring to the accompanying drawings, 1 denotes a lamp chimney or other restricted passage communicating with means for producing heat, not shown.

Resting upon the top of the lamp chimney 1 is a plate 2 having a downwardly turned ring 3 to prevent lateral movement of the plate 2 on the lamp chimney. The plate 2 extends within the area of the top of the lamp chimney and is provided with a central boss 4, having an opening 5 in its top, which restricts the area of the heated air currents passing from the chimney 1. Openings 6 are arranged in the plate 2 at the base of the ring 3 to provide for the final escape of the air currents. Beyond the openings 6 the plate 2 is turned upward, attaining a plane above the plane of the opening 5 to form a support 7 for the heat diffusing plate 8. From the point of support of the plate 8 the plate 2 is bent downwardly and outwardly and upwardly to form a trough 9 to receive accidental overflow from a receptacle resting on the plate 8. The angle of the upwardly turned surface 10 is so arranged that liquid contacting with said surface 10 will be returned toward the bottom 11 of the trough 9.

The heat diffusing plate 8, see Fig. 3, is annular in shape, and provided with a downwardly turned rim 12 fitting the support 7 of the plate 2, which serves to support the plate 8 and also to center it above the opening 5 in the plate 2. An annular depression 13 is formed in the plate 8 immediately within the rim 12, and is provided with openings 14 to allow for the return of the heated air currents after contact with a receptacle above the plate 8. Within the annular depression 13 the plate 8 is raised approximately to the plane of the rim 12. The circular opening immediately above the opening 5, surrounded by the annular plate 8, may be left open, but I preferably insert therein metal gauze 15, or other similar means of diffusing heat, thereby affording an opportunity for the use of my attachment for the preparation of articles requiring the direct contact of diffused heat with the article.

In the preferable form of utensil for use in my attachment, as shown in Fig. 2, the bottom is provided with an annular raised portion 16 arranged to rest upon the rim 12 of the plate 8 on the support 7 of the plate 2, thereby supporting the utensil 17, preventing its lateral movement and centering it above the gauze 15. The central portion 18 of the bottom of the utensil 17 is also preferably raised in my attachment to furnish a greater area of contact between the contents of the utensil and the heat passing through the gauze 15, but any form of utensil arranged to be supported on the rim 12 and held thereon from lateral movement, would come within the scope of my invention.

The course of the heated air currents through my attachment is as follows:— Passing up the chimney 1 the currents of heated air are guided through the opening 5 in the central boss 4. From there they pass through the heat diffusing material in the plate 8 and are brought into contact with the raised central portion 18 of the utensil 17. Having transferred a considerable portion of their heat to the utensil 17, the air currents pass downward through the openings 14 in the plate 8, and finally are discharged through the lower openings 6 in the plate 2 which are preferably placed below the plane of the central opening 5. By thus conducting the heated air currents into contact with the center of the bottom of the utensil, and discharging them by a down draft through openings arranged in a ring around the center, I provide a relatively

long period of contact of the heated air with the bottom of the utensil, and also accomplish the even distribution of the heated air currents over the bottom of the utensil. This result is aided by the form imparted to the bottom of the utensil, as shown in Fig. 2.

I claim:

1. A heating apparatus, comprising a supporting plate with its central portion arranged horizontally to rest upon the top of a lamp chimney, said supporting plate having in said central portion an opening concentric with the top of said chimney and with a series of escape openings surrounding said central portion, and a heat diffusing plate held by said supporting plate above the top of the lamp chimney, said heat diffusing plate having a central opening concentric with said opening in said supporting plate with a series of escape openings surrounding said central opening.

2. A heating apparatus, comprising a supporting plate with its central portion arranged horizontally to rest upon the top of a lamp chimney, said central portion having an opening concentric with the top of said lamp chimney, a horizontal heat diffusing plate held by said supporting plate in a plane above the plane of the top of the lamp chimney, said heat diffusing plate having a central opening concentric with the opening in said supporting plate, and also provided with an annular series of escape openings surrounding and below the plane of said central opening.

3. A heating apparatus, comprising a supporting plate with its central portion arranged horizontally to rest upon the top of a lamp chimney, said central portion having an opening, with an annular portion of the plate beyond said central portion bent upward above the plane of the central portion to form an annular support for an article to be heated, then bent downwardly, outwardly and upwardly to form an annular trough outside of said support.

4. A heating apparatus, comprising a supporting plate with its central portion arranged to rest upon the top of a lamp chimney and having an opening, said plate having an annular series of escape openings below the plane of the top of said chimney, with an annular portion beyond said series bent upwardly to form an annular support for a utensil above the plane of the top of said chimney, and a utensil with its bottom having an annular raised portion engaging said support.

5. A heating apparatus, comprising a supporting plate with its central portion arranged to rest upon the top of a lamp chimney and provided with an opening, said plate having an annular series of escape openings below the plane of the top of said chimney, with an annular portion beyond said series bent upwardly to form an annular support above the plane of the top of said chimney, a horizontal heat diffusing plate having an annular downwardly turned rim fitting said support, a central opening and an annular series of escape openings below the plane of said central opening, and a utensil with its bottom having an annular raised portion engaging said rim, and a central portion raised above the plane of said horizontal heat diffusing plate.

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Witnesses:

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