(No Model.) 2 Sheets—Sheet 1.

W. RENNYSON.

HEATING ATTACHMENT.

No. 492,431. Patented Feb. 28, 1893.

Fig. 1.

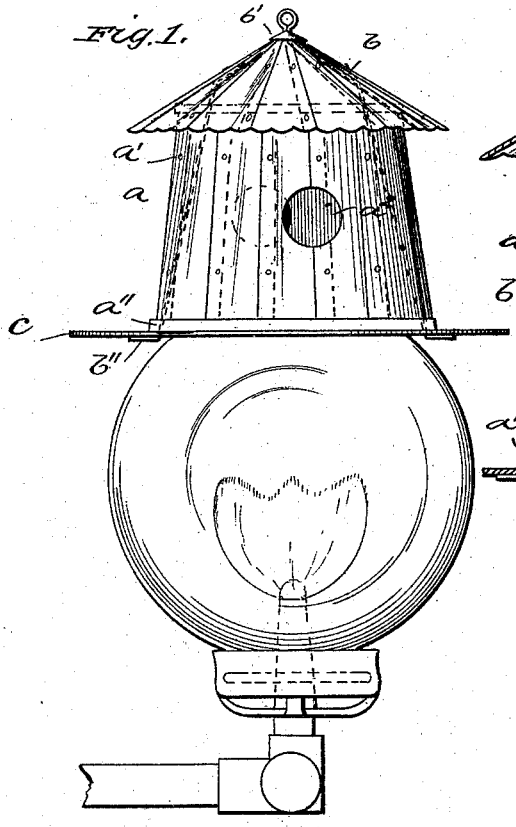


Fig. 2.

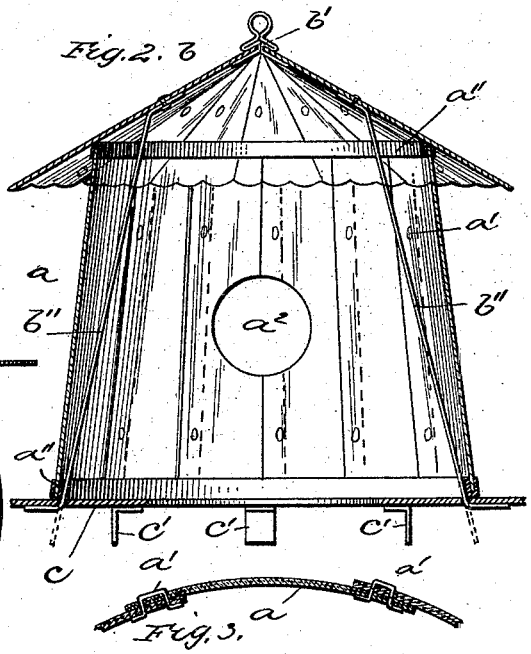


Fig. 3.

Fig. 4.

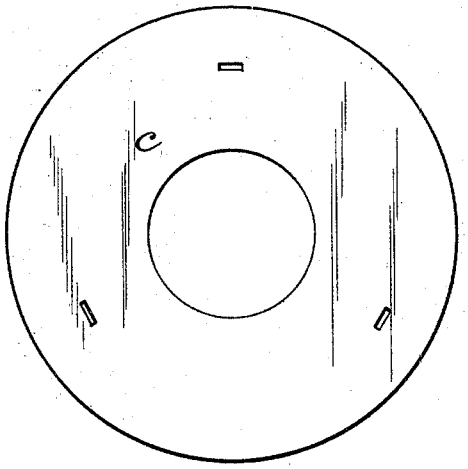
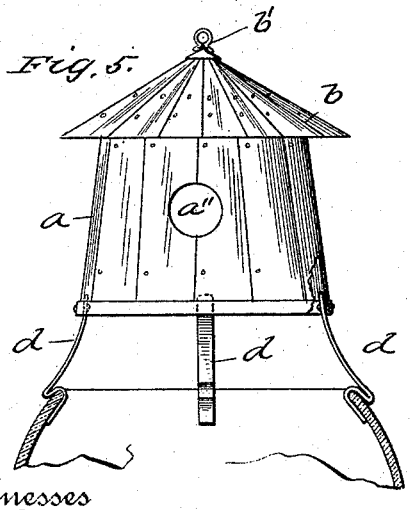


Fig. 5.



Witnesses
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Inventor
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(No Model.) 2 Sheets—Sheet 2.

W. RENNYSON.

HEATING ATTACHMENT.

No. 492,431. Patented Feb. 28, 1893.

Fig. 6.

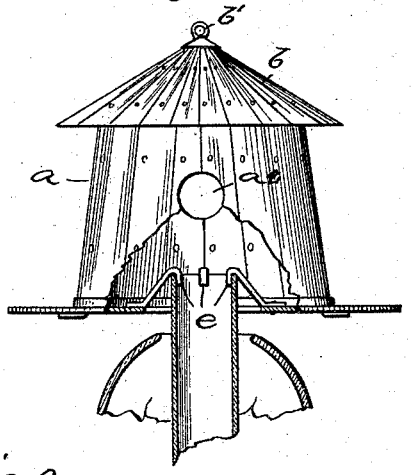


Fig. 7.

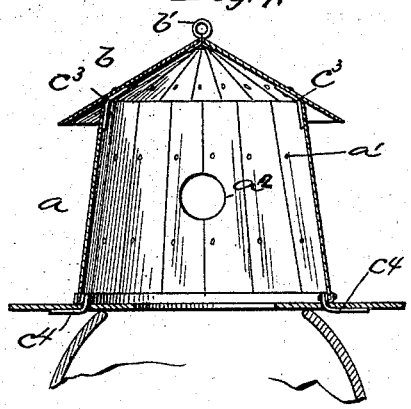


Fig. 9.

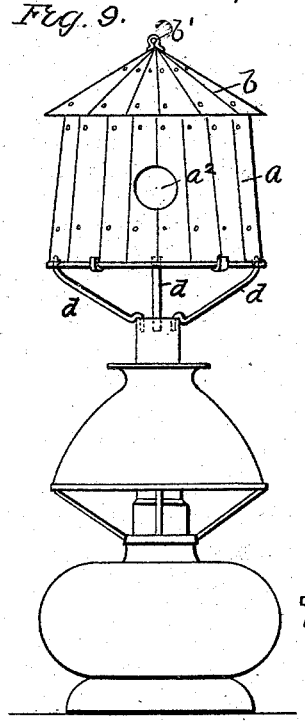


Fig. 8

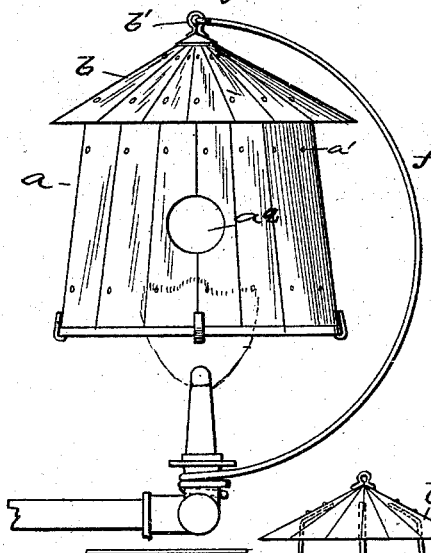


Fig. 11.

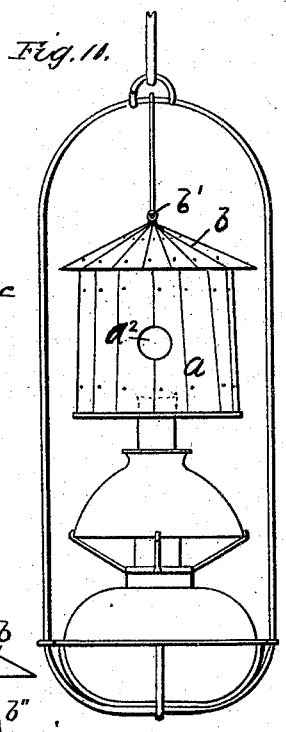
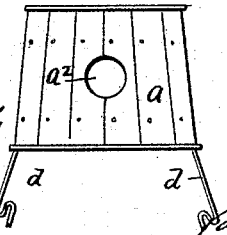


Fig. 11.



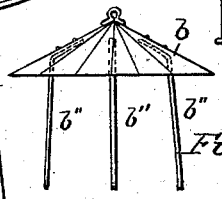


Fig. 12.

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UNITED STATES PATENT OFFICE.

WILLIAM RENNYSON, OF NORRISTOWN, PENNSYLVANIA.

HEATING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 492,431, dated February 28, 1893.

Application filed June 2, 1892. Serial No. 435,322. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM RENNYSON, a citizen of the United States, residing at Norristown, in the county of Montgomery and State of Pennsylvania, have invented certain new and useful Improvements in Heating Attachments, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 represents a side elevation of one form of my device applied to the globe of a gas burner; Fig. 2 a vertical section of the same; Fig. 3 a horizontal section of a portion of the cylinder showing the manner of connecting its transparent sections; Fig. 4 a plan of the base-plate or ring; Fig. 5 a side view of the complete device showing a modified form of the supporting devices; Fig. 6 a similar view showing still another form of supporting devices, used in connection with a lamp chimney; Fig. 7 a vertical section showing a modified means for attaching the parts of the device together; Fig. 8 a side elevation showing another device for supporting the device over a flame; Figs. 9 and 10 side elevations of other forms of lamps provided with my improvements, and Figs. 11 and 12 detailed views of the cap and cylinder.

This invention has relation to that class of heating and lighting devices covered by my former patent No. 426,215, dated April 22, 1890, wherein a globe or reservoir is detachably supported above the flame of a gas jet or oil lamp to receive and temporarily confine the hot gases as they ascend from the flame and radiate them downwardly and outwardly into the room whereby the heating and lighting capacity of the flame are greatly increased; and the objects of the present invention are to render the device lighter, cheaper, and simpler in construction, more efficient in action, more ornamental in appearance, and more easily taken apart for transportation and cleaning purposes, as will more fully hereinafter be described.

Referring to the drawings by letters, *a* designates the vertical cylinder of the heating device, which cylinder tapers toward its upper end and is constructed preferably of a series of vertical sections of mica secured together at their overlapped edges by small staples *a'*. The upper and lower edges of the cylinder are bound with strips of metal *a''* which extend entirely around the cylinder and serve to give strength and rigidity to it and also to form a close joint with the adjacent parts of the device. Openings a^2 are formed in this cylinder if desired for the purpose of throwing out heat in radial currents, but as the device will probably operate equally well without these openings they may be omitted if desired.

The letter *b* indicates the conical top or cover which is removably secured tightly over the upper end of the cylinder by any suitable means and which is constructed of segmental plates of mica secured together at their overlapped edges by small staples and also at the apex of the cone by a small clamp *b'*, this cap or cover preferably having its edge extended out a short distance beyond the cylinder, this projecting edge serving to collect and radiate the ascending heat currents and also to add to the appearance of the device. This cap is preferably secured to the cylinder by long flexible strips *b''* whose upper ends are secured to the inside of the cap and whose lower ends extend down through the cylinder and are passed through slits in a metal or glass disk or ring *c* and bent up against the lower side of the same, thereby serving to removably but securely clamp the three parts of the device together. This disk is provided with a central opening for the products of combustion to pass up into the cylinder and it is made of greater width than the cylinder in order that it may be applied to the various sizes and styles of globes.

To detach the parts of the device it is simply necessary to straighten the bent ends of the metal strips, as shown in dotted lines in Fig. 8 whereupon the disk and cylinder may be readily slipped off the strips. This ready means of detaching the parts enables them to be more compactly packed for shipment and also enables the parts to be cleaned more readily. The conical shape of the cylinder and the cap not only enables these parts to be cleaned more readily, but also permits them to be packed one within the other for transportation, which are important advantages. I preferably construct the cylinder

and cap of mica as that material is light and cheap as well as ornamental, but it is evident that they may be constructed of glass or other materials if found desirable. If desired, to prevent the rings slipping off the globe, depending stops c' may be secured on its under side, as shown in Fig. 2, these stops projecting into the globe and adapted to abut against the inner side of its upper edge as is evident.

Instead of supporting the device on a disk or ring as shown in Figs. 1 and 2 a series of metal legs d may be secured to the lower end of the cylinder for the purpose, as shown in Figs. 5, 9, 11, these legs being made of thin, pliable material so as to be capable of bending to suit different sized globes or chimneys.

For use in connection with lamps a series of hooks e may be secured to the disk c to engage over the upper edge of the chimney, as shown in Fig. 6, and a suitable bent wire support f may be employed for use on gas brackets not provided with globes, as shown in Fig. 8, the upper end of this arm engaging a ring on the clamp b' at the apex of the cap and serving to suspend the heater over the flame. Other devices than those shown may be used to attach the parts together; for instance, the cap may be secured to the interior of the cylinder and the cylinder may be secured to the disk by short pliable clips c^4 secured to the lower edge of the cylinder, as shown in Fig. 7.

It is evident that I do not desire to limit myself to specific devices for attaching the parts together nor to any particular supporting devices.

In Fig. 10, a swinging or hanging lamp is provided with the attachment, the same being suspended over the chimney of the lamp by a depending rod as shown.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a heating and lighting device the combination of an open-ended cylinder constructed of translucent material (such as mica) and provided with a metal binding a'' around its upper and lower edges, a cap constructed of similar material and detachably secured over the upper end of the cylinder so as to bear upon the upper binding strap, substantially as described.

2. In a heating and lighting attachment the combination of a cylinder a open at both ends and constructed of vertical sections of mica secured together at their vertical and horizontal edges, a cap b constructed of radial sections of mica secured together at their longitudinal edges, and means, substantially as described, for removably clamping said cap upon the upper end of the cylinder, substantially as described.

3. The combination of a vertical open-ended cylinder, a cap secured over the same, and a series of pliable strips b'' secured to the cap and extending down and bent under the lower edge of the cylinder whereby the parts are detachably secured together, substantially as described.

4. The combination of a translucent cylinder, a translucent cap secured thereon a disk or plate c secured over the lower end of the cylinder, this plate being provided with a central opening and being made longer than the cylinder whereby the device may be applied to globes of different sizes substantially as described.

5. The combination of a cylinder, a cap detachably secured over the upper end of the same, a plate c made longer than the cylinder and provided with a central opening and small slips, and pliable strips b'' secured to the interior of the cap and extending down through the cylinder and the slits in the plate, and having their ends bent up against the plate, whereby the parts are made readily detachable, substantially as described.

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

WILLIAM RENNYSON.

Witnesses:
JOHN C. RICHARDSON,
CHALFRED CORSON.