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Patented Nov. 14, 1899.

W. L. RUSSELL.
MANTLE SUPPORT.

(Application filed Feb. 8, 1899.)

(No Model.)

2 Sheets—Sheet 1.

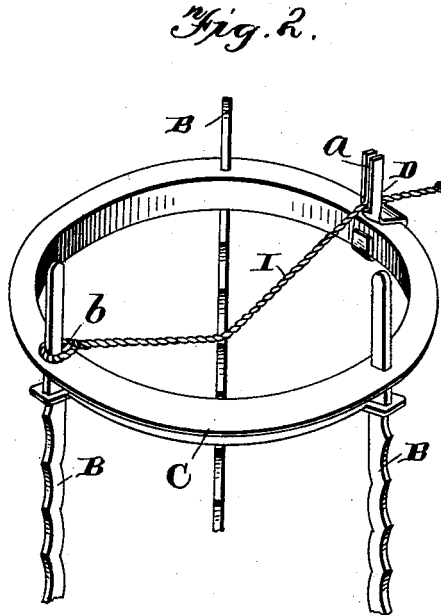
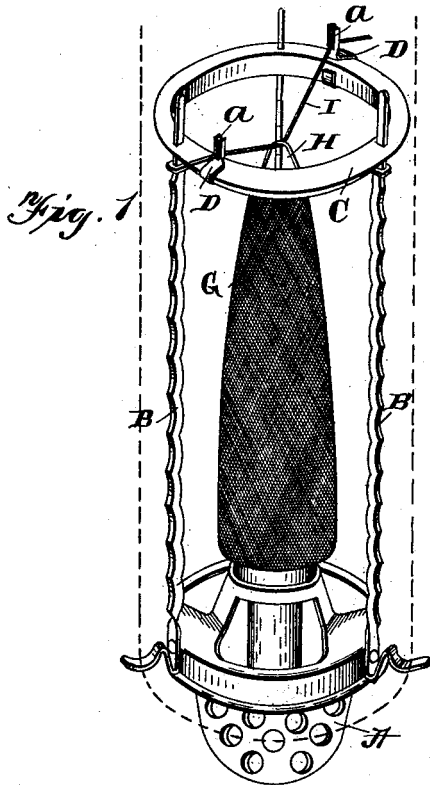


Fig. 3.

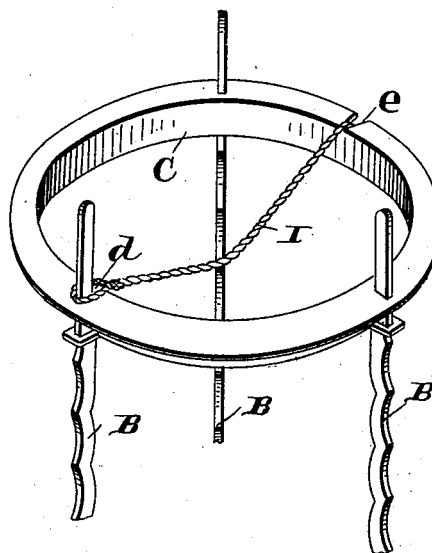
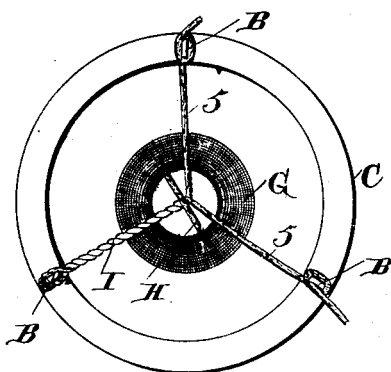


Fig. 4.



WITNESSES

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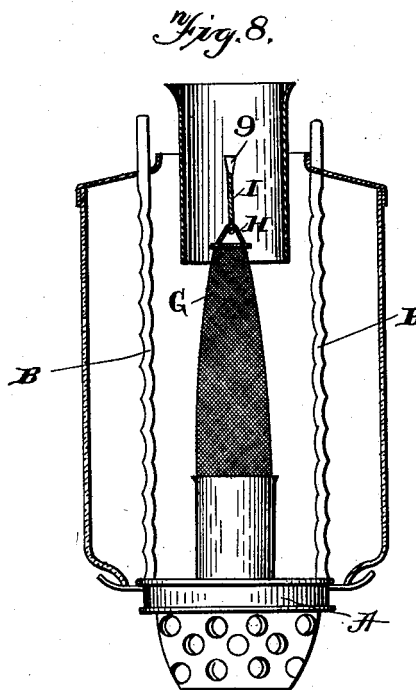
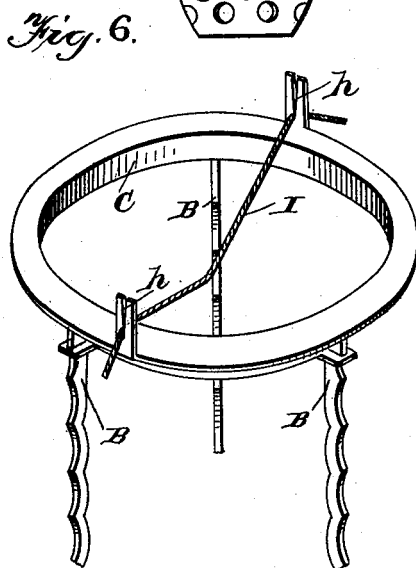
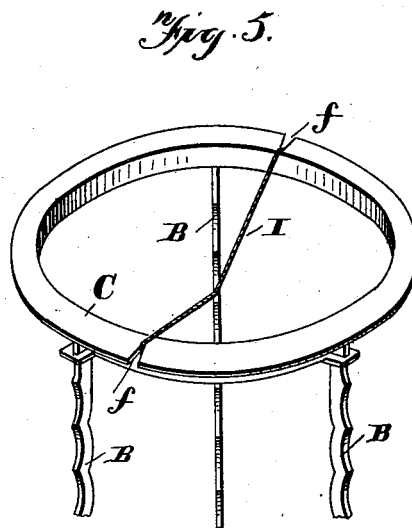
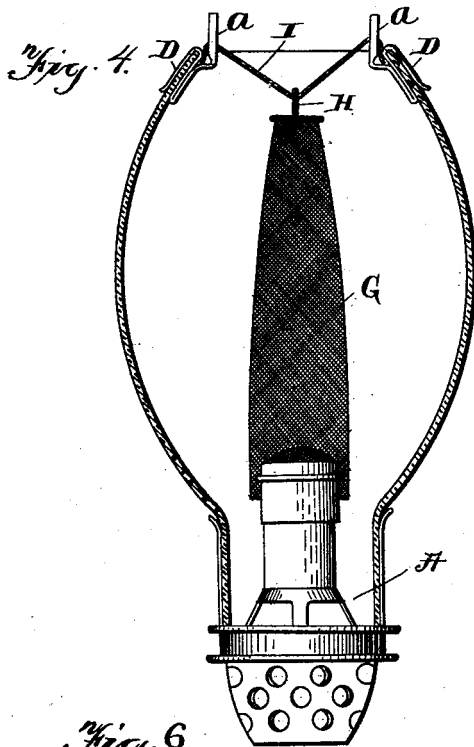
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2 Sheets—Sheet 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

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MANTLE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 637,163, dated November 14, 1899.

Application filed February 8, 1899. Serial No. 704,936. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. RUSSELL, a citizen of the United States, residing at Duke Centre, in the county of McKean and State of Pennsylvania, have invented new and useful Improvements in Mantle-Supports for Incandescent Lights, of which the following is a specification.

My invention relates to improvements in mantle-supports for incandescent lights, all of which will be fully described hereinafter, and particularly pointed out in the claims.

The object of my invention is to provide a support for an asbestos mantle having an asbestos loop by passing an asbestos cord or string through the loop and attaching the ends of the string to the chimney-gallery or gallery-posts thereabove.

In the accompanying drawings, Figure 1 is a perspective view of a burner embodying my mantle-support in its preferred form. Fig. 2 is a similar view of a gallery-ring, showing a modification, in which one end of the string is provided with a loop and passed over one of the gallery-ring posts and the other end attached to a clip which embraces the gallery-ring. Fig. 3 is another modification showing one end of the string provided with a loop and passed over one of the gallery-ring posts and the gallery-ring provided with a slit to receive the opposite end of the string. Fig. 4 is a perspective view showing my improvement applied to bulbs. Fig. 5 is a modification showing the gallery-ring provided with slits at opposite sides thereof, into which the ends of the asbestos cord are passed. Fig. 6 is a view showing the gallery-ring provided with upwardly-projecting integral slitted arms. Fig. 7 is a view showing the asbestos string attached to all three of the gallery-posts. Fig. 8 is a view showing my invention applied to lighthouse-lamps.

Referring now to the drawings, A indicates a burner which may be of the usual atmospheric form, such as is usually used in incandescent lights. B represents the chimney-posts extending from said burner, and C a gallery-ring. As here shown, the posts extend through and above the gallery-ring, but in some instances this may not be so; but my invention is adapted for application to any form of gallery-ring or bulbs.

In the preferred form of my invention I provide clips D, having slitted upper ends *a*, the clips adapted to be attached to the gallery-ring at opposite sides thereof, as illustrated. The mantle G, with which my invention is to be used, is of the asbestos form, which is provided with an asbestos loop H, and I pass through this loop an asbestos string or cord I. As shown in the preferred form, Fig. 1, the ends of this cord are forced into the slits *a* of the clasps after being passed through the loop of the mantle.

In Fig. 2 I show a modification in that one end of the asbestos string is provided with a loop *b*, adapted to pass over one of the chimney-posts, which extends above the gallery-ring, and the opposite end to be held by one of the clasps, as shown in Fig. 1.

In Fig. 3 I show a modification, in which instance one end of the asbestos string is provided with a loop *d*, and the gallery-ring at a point opposite the post is provided with a slit *e*, into which the other end of the string is inserted.

In Fig. 4 I show my invention applied to bulbs in incandescent lamps, in which instance the clips are constructed to grasp the upper edge of the bulb and to receive the ends of the asbestos string or cord, as shown in Fig. 1.

In Fig. 5 I show another modification, in which the gallery-ring is provided with slits *f* at opposite edges thereof, and each end of the asbestos string is inserted in these slits, as illustrated.

From the above description it will be noted that my invention generically consists in passing a flexible support, such as an asbestos string, through the asbestos loop of a mantle and detachably connecting one or both of its ends to the lamp-gallery, whereby one or both ends of the asbestos string may be detached and whereby one or both ends of the string are adjustable for the purpose of raising or lowering the mantle to have it in the proper relative position to the burner, as is well understood by those skilled in the art.

Owing to the fact that one or both ends of the asbestos cord is adjustably connected with the lamp-gallery it will be readily understood that the height of the mantle can be readily adjusted by means of a flexible as-

bestos support such as that herein shown and described.

It will also be noted that my invention is adapted to be connected with old forms of burners wherein the posts do not extend above the gallery-ring either by means of the clips, as shown in Fig. 1, or by slitting the edge of the gallery-ring, as shown in Fig. 5.

A support for mantles as herein shown and described is very simple and cheap, as well as durable.

In Fig. 6 I show the gallery-ring provided with integral upwardly-projecting arms *h*, provided with vertical slits *i* to receive the ends of the asbestos string or cord. This is a good construction when lamps are specially constructed to receive my flexible support.

In Fig. 7 I show a modification wherein the string for supporting the mantle has three ends, each adapted to be attached to one of the gallery-posts. In this event the string is doubled and twisted together to about the center and then moistened with water, which will cause it to stick, and the diverging ends twisted around the gallery-post and then dampened with water, which will cause them to remain in that position by adhesion.

In Figs. 2, 3, and 7 I show my manner of making the string, which is by doubling the string intermediate its ends to form a loop 6, then twisting the string together the remainder of the distance. This forms a loop at one end, and the opposite end is adapted to be connected as hereinbefore described and illustrated. The asbestos string in being twisted is preferably moistened with water for the purpose of causing it to adhere and to remain in the twisted position, with the loop at one end, as illustrated in Figs. 2, 3, and 7.

As illustrated in Fig. 8, the floor 8 is provided with the V-shaped slit 9, into which the ends of the string can be inserted.

My invention is also adapted to be used in connection with petroleum or oil incandescent lights, as will be readily understood, the same as in connection with gas incandescent lights, with which I have previously described it.

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

1. An improved support for incandescent mantles comprising a mantle having at its upper end a sustaining-loop, a string-support at a point above the mantle and its loop, a fibrous non-combustible flexible string passing loosely through said mantle-loop, the end of the string being longitudinally adjustably connected with said support whereby the mantle may be raised and lowered, substantially as described.

2. A support for incandescent mantles comprising a mantle having a projecting sustain-

ing-loop at its upper end, a support at opposite sides of said loop and at a point thereabove, a fibrous non-combustible flexible string passing loosely through said loop, the ends of the string being detachably connected with the said support, substantially as described.

3. The combination with the burner having the gallery-ring, of a mantle having a loop, and a flexible non-combustible cord having one end connected to one side of the ring; its opposite end of the cord adjustably connected to the opposite side of the ring, and passed loosely through the mantle-loop, substantially as described.

4. A mantle-support comprising a mantle having a sustaining-loop at its upper end, a fibrous non-combustible string passing loosely through said loop, and a support for said string, and clasps for the ends of said string carried by said support, substantially as described.

5. A support for incandescent mantles comprising a clip-support, clips adapted to be attached to said support, said clips having slits, and an asbestos string having its ends passed in said slits, substantially as described.

6. A support for incandescent mantles comprising a mantle having a loop at its upper end, an asbestos string passing loosely through said mantle, the string having a sustaining-loop at one end and its opposite end longitudinally adjustably connected to a support, and a support for said string, substantially as described.

7. A support for incandescent mantles comprising a mantle having a sustaining-loop at its upper end, a support at opposite sides of said loop and at a point thereabove, a fibrous non-combustible flexible string passing loosely through said loop, the string being longer than the distance between the said supports and extending downward at a point intermediate its ends, the ends of the string being connected with the supports, substantially as described.

8. A support for incandescent mantles comprising a mantle having a projecting sustaining-loop at its upper end, a support at opposite sides of said loop and at a point thereabove, a fibrous non-combustible flexible string passing loosely through the said loop, the ends of the string being connected with the said support, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM L. RUSSELL.

Witnesses:

P. L. GOLDEN,
C. A. DUKE.