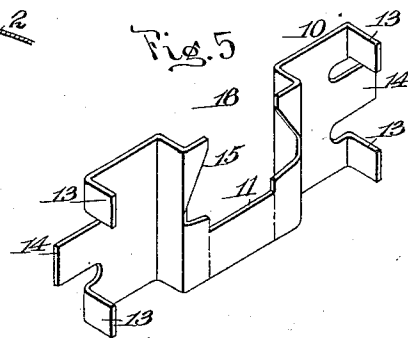
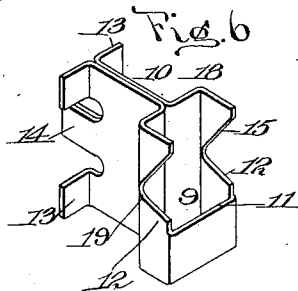
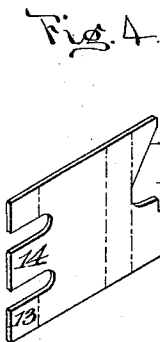
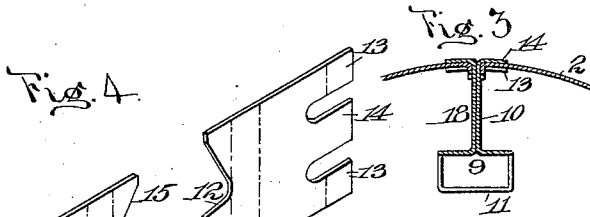
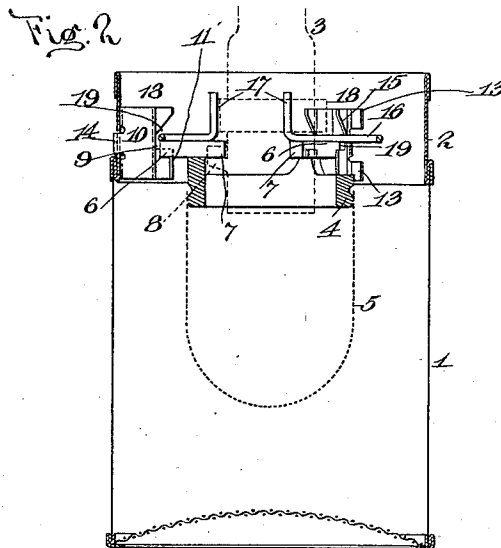
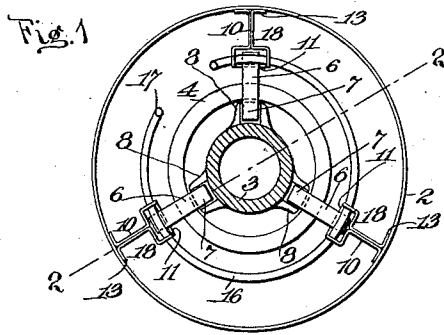


A. P. STORRS.
CYLINDER OR GLOBE FOR INVERTED INCANDESCENT GAS BURNERS.
APPLICATION FILED MAY 23, 1912.

1,066,060.

Patented July 1, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

AARON P. STORRS, OF OWEGO, NEW YORK, ASSIGNOR TO STORRS MICA COMPANY, OF OWEGO, NEW YORK, A CORPORATION OF NEW YORK.

CYLINDER OR GLOBE FOR INVERTED INCANDESCENT GAS-BURNERS.

1,066,060.

Specification of Letters Patent.

Patented July 1, 1913.

Application filed May 23, 1912. Serial No. 699,111.

To all whom it may concern:

Be it known that I, AARON P. STORRS, a citizen of the United States, residing in Owego, Tioga county, State of New York, have invented a certain new and useful Cylinder or Globe for Inverted Incandescent Gas-Burners, of which the following is a specification.

The object I have in view is the production of a cylinder or globe, having improved means for attachment to an inverted incandescent gas lamp. In my application for patent, filed June 23, 1910, Serial No. 568,464, I show a device of this character. The present invention seeks to attain all of the advantages of that device. In addition, it is possible to utilize the commercial form and size of mantle ring without changing the shape or length of the arms thereof. According to the present invention, I seek to produce a device whereby the attachment of the cylinder to the burner is simplified; the cost of the cylinder or globe is reduced; and the danger of injury to the mantle, by the operation of introducing it in the cylinder, is reduced.

These and further objects will appear from the following specification and accompanying drawings, considered together or separately.

Figure 1 is a plan view of my improved cylinder, showing the mantle ring, and also showing the burner tip in section. Fig. 2 is a section on the line 2—2 of Fig. 1, a mantle and burner tip being shown in dotted lines. Fig. 3 is a section on an enlarged scale, through one of the brackets 18, and a portion of the band on the upper end of the cylinder. Fig. 4 is a perspective view of the blank of which a bracket is made. Fig. 5 is a similar view of the blank, in partly completed condition, and Fig. 6 is a similar view of the completed bracket.

In all of the views, like parts are designated by the same reference characters.

In the embodiment of my invention chosen for illustration, the protecting device around the mantle comprises the cylinder 1. This cylinder is preferably formed of transparent material such as sheet mica. The bottom of the cylinder has a metal protecting nosing, as shown. It has a screen, or other bottom, for the purpose of inclosing the burner and collecting the deposits from the mantle and burner. The upper part of

the cylinder is provided with a band 2. This band is preferably made of metal. The band carries means for attachment of the cylinder to the burner. The details of this band will be described later in this specification. The burner tip 3, is shown as of the usual form. It carries the mantle ring 4, and inverted mantle 5. The mantle ring is of the usual form. It is provided with a plurality of integral arms 6. These arms radiate outward from the ring. The ring is also provided with a plurality of lugs 7. These lugs radiate inward. Preferably they are contiguous with the arms. This is the usual and well-known form of commercial mantle ring. The lugs 7 are adapted to engage within the ears 8, on the burner tip. The arms engage with the upper portion of the cylinder, and support the latter. Three arms are illustrated, as these are the number usually supplied upon commercial mantle rings. The number of arms and lugs may be varied, as desired.

The cylinder, with the mantle and mantle ring, I prefer to combine. In such a condition, they constitute an article of manufacture. The combination of the cylinder, the mantle and ring, may be easily attached to the burner tip by passing the tip through the ring into the position shown in Fig. 2. The cylinder is then given a partial revolution so as to allow the lugs 7 to come over the ears 8. It is then lowered into place, so that the lugs rest within the ears. This may be accomplished by any unskilled person, without danger of injuring the mantle.

In order to properly secure the ring within the cylinder, it is necessary that it be so supported that the ring may be rotated upon the burner tip for the purpose of properly engaging the lugs 7 within the ears 8. It is, therefore, necessary for the outer ends of the arms 6 to be properly secured to the cylinder. It is also desirable that the means for attaching the ring to the cylinder be so made that the ring may be placed within the cylinder without danger of the mantle becoming injured by contact with the cylinder or with the hands of the operator.

According to my present invention, I provide the band 2 with a plurality of inwardly extending brackets 18. The outer ends of the arms 6 are adapted to engage with these brackets. Means, which will be described later in this specification, are provided for

locking the brackets upon the ends of the arms.

The details of the brackets 18 are as follows: Each bracket is provided with a pocket 9. This pocket is of such a shape and size that the end of the arm 6 may rest within it. The pocket is separated from the band 2 by means of a leg 10. This leg is of such a length that the pocket will be held in the proper position to engage with the end of the arm of the mantle ring. Each pocket has a ledge 11, on which the arm 6 rests. Each bracket is provided with sides 12, 12. These sides are above the ledge 11, but they engage with the sides of the arms 6.

For the purpose of attaching the brackets 18 to the band 2, each bracket is provided with one or more ears 13. These ears engage with the inner side of the band. Each bracket is provided also with one or more fingers 14. These fingers pass through openings in the band. After being put through, they are bent over to engage with the outside of the band. This is shown in Fig. 3.

The mantle ring is introduced in place within the cylinder. The arms 6 rest within the pockets and upon the ledges 11. The sides 12 prevent relative rotation between the arm 6 and the cylinder.

Means for holding the arms in position within the pockets, in the embodiment chosen for illustration, comprises an elastic ring 16. This ring may be made of any material, preferably spring metal. The ring is not a complete ring. The two ends are separated a sufficient distance so that the diameter of the ring may be decreased when it is being placed in position or being removed. The ends of the wire of which the ring is made are bent upward to produce finger pieces 17. This ring rests upon the top of the arms 6, and, expanding by its elasticity, will enter notches 19, in the brackets. The upper faces of these notches are in the form of inclined surfaces 15. The tendency of the ring to flatten and increase in diameter,—engaging with these inclined surfaces, will force itself downward against the upper faces of the arms 6. This ring, therefore, will firmly lock the mantle ring in place within the cylinder. It will also support the cylinder from the mantle ring.

From the foregoing description, it is apparent that the mantle may be readily inserted within the cylinder, and will be locked in position therein by means of the ring 16. It is also apparent that the pockets

9 may be made of sufficient depth to accommodate natural irregularities in the lengths of the arms 6 and in the diameter of the band 2.

The band 2 may be made of sheet metal, such as tin. The brackets 18 may also be made of tin. Fig. 4 shows one form of blank of which the brackets may be conveniently made. After being stamped to the shape shown in Fig. 4, it is creased along the dotted lines shown in that figure, to the shape shown in Fig. 5. It may then be creased along the dotted lines shown in Fig. 5, to assume the position shown in Fig. 6. The members may then be attached to the inside of the ring 2, in the manner previously described.

In accordance with the provisions of the patent statutes, I have described the principle of my invention, together with the apparatus which I now consider to represent the best embodiment thereof; but I desire to have it understood that the apparatus shown is merely illustrative and that the invention can be carried out in other ways.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. A cylinder, in combination with a mantle ring, said mantle ring having outwardly extending arms, said cylinder having inwardly extending brackets, with which the arms engage, and removable flexible means engaging with the arms and holding the mantle ring in engagement with the brackets.

2. A mantle cylinder with inwardly extending brackets, an elastic ring engaging with the brackets, in combination with a mantle ring having arms which engage with the brackets and also with the ring.

3. A cylinder with inwardly extending brackets, each bracket having a pocket, in combination with a mantle ring having arms, an arm entering a pocket, and elastic means engaging between the bracket and the arm.

4. A mantle cylinder having inwardly extending brackets, each bracket terminating at the inner end in a pocket, and a notch in said pocket, in combination with a flexible ring engaging within the notch.

This specification signed and witnessed this 15th day of May, 1912.

AARON P. STORRS.

Witnesses:

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H. G. FOSTER.