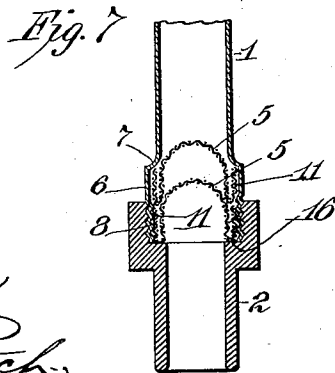
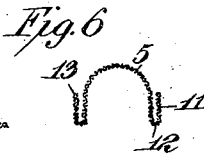
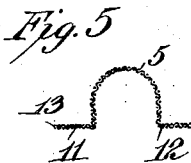
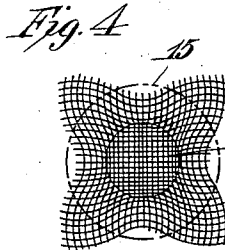
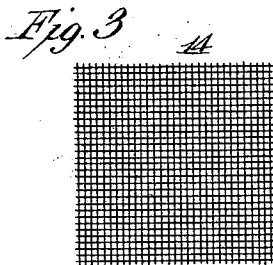
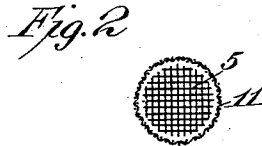
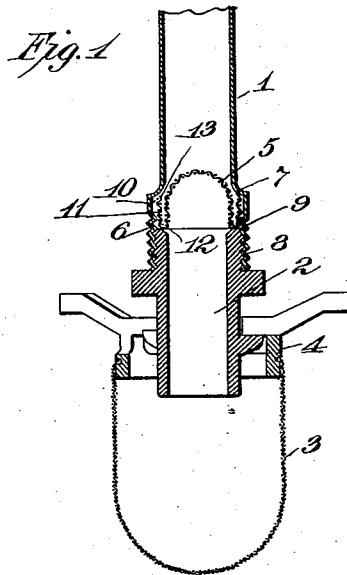


A. P. STORRS.
 BURNER FOR INCANDESCENT MANTLES.
 APPLICATION FILED AUG. 17, 1910.

1,015,851.

Patented Jan. 30, 1912.



Witnesses:

Geo. F. Coleman
John L. Fotech

Inventor
Arson P. Storrs
By Wm. A. Taylor
 Attorneys.

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.

BURNER FOR INCANDESCENT MANTLES.

1,015,851.

Specification of Letters Patent.

Patented Jan. 30, 1912.

Application filed August 17, 1910. Serial No. 577,547.

To all whom it may concern:

Be it known that I, AARON P. STORRS, a citizen of the United States, residing at Owego, Tioga county, State of New York, have invented a new and useful Burner for Incandescent Mantles, of which the following is a specification.

The object I have in view is the production of a burner for incandescent lamp mantles and the like, using a screen or gauze, and in which the screen or gauze will not reduce the cross sectional area of the burner tube or tip and will, therefore, not act as an obstruction to the free flow of mixture to the burner.

A further object is to produce an improved gauze or screen, which will be removably held in position within the tube.

A still further object is to produce an improved screen or gauze which will more effectively prevent back firing, but at the same time will not impede the passage of the mixture to the burner.

These and further objects will more fully appear from consideration of the embodiments of my invention set forth in the following specification and the accompanying drawings, considered together or separately.

In the drawings: Figure 1 is a view partly in section, showing the Bunsen tube, the burner tip, the gauze, the mantle and the mantle ring of a structure embodying my invention. Fig. 2 is a plan view of the gauze, showing it as it appears when removed from the tube. Fig. 3 is a plan view of the gauze before it is stamped and otherwise formed to shape. Fig. 4 is a view of the gauze when partly shaped. Fig. 5 is a section of the same. Fig. 6 is a section of the completed gauze, and Fig. 7 is a view similar to Fig. 1 but of a modification, showing a different form of burner tip and with two gauzes in position.

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

In carrying out my invention I provide a gauze which is curved or hemispherical in shape. By making it of this shape the superficial surface of the gauze is greater than the cross section of the tube or tip at the place where the gauze is. By curving it to the necessary degree, the superficial surface can be made greater than the cross section of the tube at that place to the extent of the aggregate obstruction of the wires be-

tween the interstices. In other words, the area of opening in the gauze can be made as great as the cross section of the tube at that place.

In the drawings, 1 is the Bunsen tube, 2 is the burner tip, 3 is the mantle, 4 is the mantle ring, and 5 is the gauze. The lower end or bottom of the Bunsen tube is enlarged, the enlargement being indicated by 6. Between the enlargement and the body of the tube 1 is an annular shoulder 7. The tube is preferably made of sheet metal and a portion or all of the enlargement is screw threaded at 8. The top of the tip 2 is screw threaded and enters the screw threads 8. The space between the shoulder 7 and the top 9 of the tip 2 constitutes an annular chamber 10.

The gauze 5 is of hemispherical or other curved shape as shown in Figs. 1 and 6, and is provided with an upturned rim 11. This upturned rim, and the lower edge 12 of the gauze lie within the annular chamber 10, the lower edge 12 resting on the top 9 of the tip and the upper edge 13 resting in engagement with the annular shoulder 7. This engagement clamps the gauze in position. It may be readily removed by first separating the burner tip from the Bunsen tube.

The gauze is made preferably as follows: A rectangular sheet of gauze 14, (see Fig. 3) is first provided. This gauze is stamped to the form shown in Figs. 4 and 5, the rim 11 lying horizontally. The plan view of the gauze is shown in Fig. 4. This produces four sharp corners which are now cut off along approximately the dotted line 15, making the rim substantially circular. This rim is then bent up to the position shown in Fig. 6, finishing the gauze.

The invention may be modified in many ways, that shown in Fig. 7 producing a more effective screening effect. Two gauzes, precisely the same as those already described, are introduced in position within the Bunsen tube. A different form of tip is used, having an internal thread which engages with the outside surface of the threads 8. This threaded portion ends in a shoulder 16. This produces an annular cavity of the full depth of the enlargement 6, which is sufficient to hold two gauzes as shown. These two gauzes being curved or hemispherical in shape produce a super-

5 ficial surface which is as much greater than the transverse section of the tube as is the space occupied by the dividing members of the gauze which produce the interstices. In other words, these two gauzes do not reduce the cross section of the tube or tip at the point where the gauzes lie.

10 It is to be noted that the upturned rim 11 does not come in contact with the sides of the curved portion of the gauze, consequently, there is a clear passage through the gauze down practically to the lower edge 12. It will be noticed that when the gauze is in position, the curved portion does not come in contact with the tube 1 or the shoulder 7 or the enlargement 6, hence, the entire available surface of the curved portion is available for the passage of the mixture.

20 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.

25 Having now described my invention, what

I claim as new and desire to secure by Letters Patent, is:—

1. In combination, a Bunsen tube having an enlarged end forming a shoulder in the tube, a burner tip secured in the enlarged end of said tube, and a curved screen located within the enlarged end of said tube and having an upturned rim out of contact with the curved portion of the screen and clamped between the shoulder in the tube and the end of the tip.

2. In combination, a Bunsen tube having an enlarged end forming a shoulder in the tube, a burner tip secured to the enlarged end of said tube, and a plurality of curved screens located within the enlarged end of said tube and each having an upturned rim out of contact with the curved portion of the screen, whereby said upturned rims are clamped one upon another between the shoulder in the tube and said tip.

This specification signed and witnessed this 13th day of Aug., 1910.

AARON P. STORRS.

Witnesses:

H. G. FOSTER,
C. D. YOTHERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."