

[54] CERAMIC MANTLE RING WITH SCREW THREAD

[76] Inventor: Wilhelm Waldmann, Palmzeile 15, 1 Berlin 38, Germany

[22] Filed: Apr. 2, 1973

[21] Appl. No.: 347,204

[30] Foreign Application Priority Data

Apr. 1, 1972 Germany..... 2216054

[52] U.S. Cl. .... 431/111

[51] Int. Cl. .... F21h 1/04

[58] Field of Search ..... 931/107, 108, 109, 110, 931/111, 112, 113

[56] References Cited

UNITED STATES PATENTS

960,851	6/1910	Dixon .....	431/111
2,653,464	9/1953	Bramming.....	431/111

Primary Examiner—Edward G. Favors  
Attorney, Agent, or Firm—Smythe & Moore

[57] ABSTRACT

The invention relates to a ceramic mantle ring with a screw thread, which contains additional openings for the admission of air.

2 Claims, 2 Drawing Figures

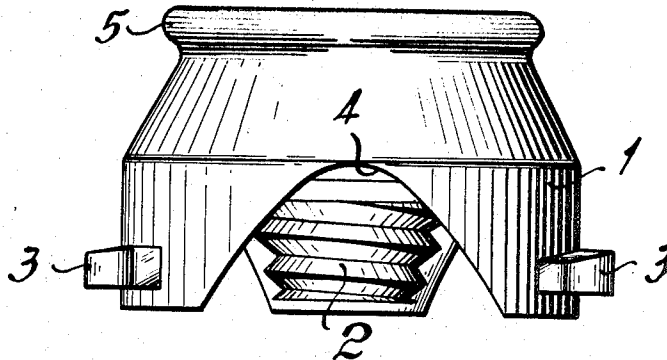


FIG. 1

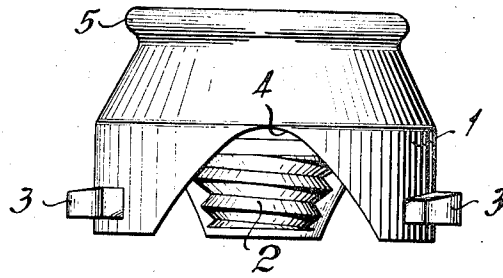
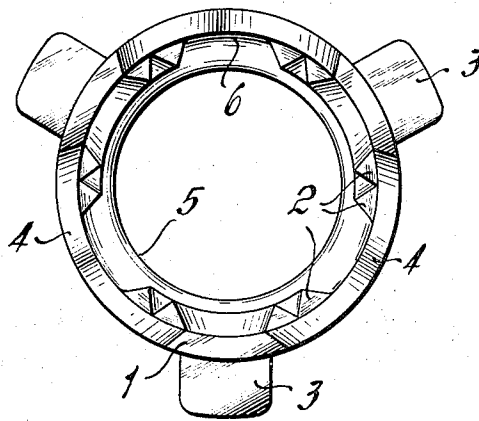


FIG. 2



**CERAMIC MANTLE RING WITH SCREW THREAD**

Mantle rings with a screw thread have been known for a long time. German application No. 1,529,196 disclosed a ceramic mantle screw ring which, together with a correspondingly shaped nozzle, constitutes a part of the burner element for house and camping lanterns. The special design of this ring is intended to make sure that a gas-tight seal between the mantle attached to the ring and the nozzle is formed, so that no unburned or incompletely burned portions of the fuel gas, particularly the toxic carbon monoxide, can emerge through openings in the mantle ring. Instead, the gas is to be forced to burn completely within the mantle.

In fact, only small amounts of CO are formed during the operation of a gas lantern according to the arrangement described. Concentrations below the permissible "maximum work-area concentration" were measured.

However, the favorable effect of this arrangement is accompanied by a significant loss in light intensity, because, for flow-technical reasons, part of the fuel gas is burned outside the mantle, without contributing to a heating of the oxide framework of the mantle and, thus, to an increase in the light intensity.

The object of the invention is to prevent the disadvantages of the known mantle screw ring, namely the penetration of the flame to the outside and the excessively low light efficiency related therewith, while retaining its known advantages, such as easy and secure mounting on the burner, and the low CO evolution.

According to the invention, curved openings are provided in the wall of the ceramic mantle ring. In the extension of these openings, the thread is removed by ring-shaped slits to such an extent that free passage for

the air drawn in from outside the ring is provided. The remaining parts of the thread are completely sufficient for screwing the mantle conveniently to the nozzle and for fixing it reliably on it.

As a result of this embodiment, the combustion process is transferred into the interior of the mantle, and the flame no longer burns outside the mantle. The result of this embodiment is a significant increase in the light intensity as compared with the known mantle.

Comparative measurements of the CO content of the waste gases show that the values found with the known screw ring are not exceeded.

In the drawings:

FIG. 1 is a side view; and

FIG. 2 is a top view of the mantle ring.

In FIGS. 1 and 2, 1 is the mantle screw ring, 2 the remaining thread, 3 the feet, 4 the opening in the mantle ring, 5 the connecting bead for the mantle, and 6 a ring-shaped slit as an air channel.

What is claimed is:

1. A ceramic mantle mounting ring comprising a tubular body portion having bead means as its upper end for mounting a mantle thereon, generally arcuate shaped spaced slots in said body portion extending vertically from the bottom thereof for admitting air thereinto, and the interior of the body portions between said spaced slots being threaded whereby said ring is mounted on a lantern fuel nozzle.

2. In a ceramic mounting ring according to claim 1 wherein the upper end of said tubular body portion is tapered inwardly to said bead means, and at least three generally arcuate slots formed in the bottom portion of said body portion and extending to a point generally midway thereof.

\* \* \* \* \*

40

45

50

55

60

65