

No. 659,843.

Patented Oct. 16, 1900.

G. BRAY.  
CONSTRUCTION OF GAS BURNERS.

(Application filed Apr. 26, 1900.)

(No Model.)

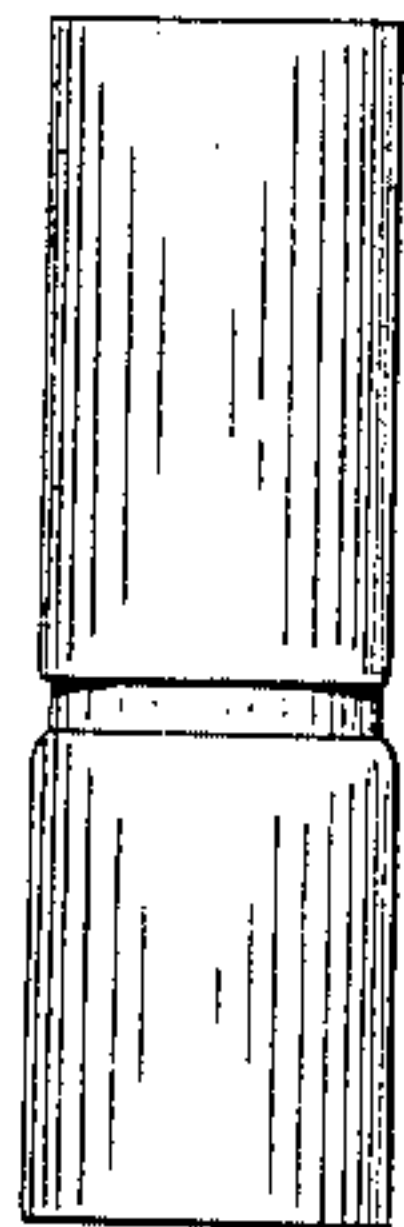


Fig. 1.

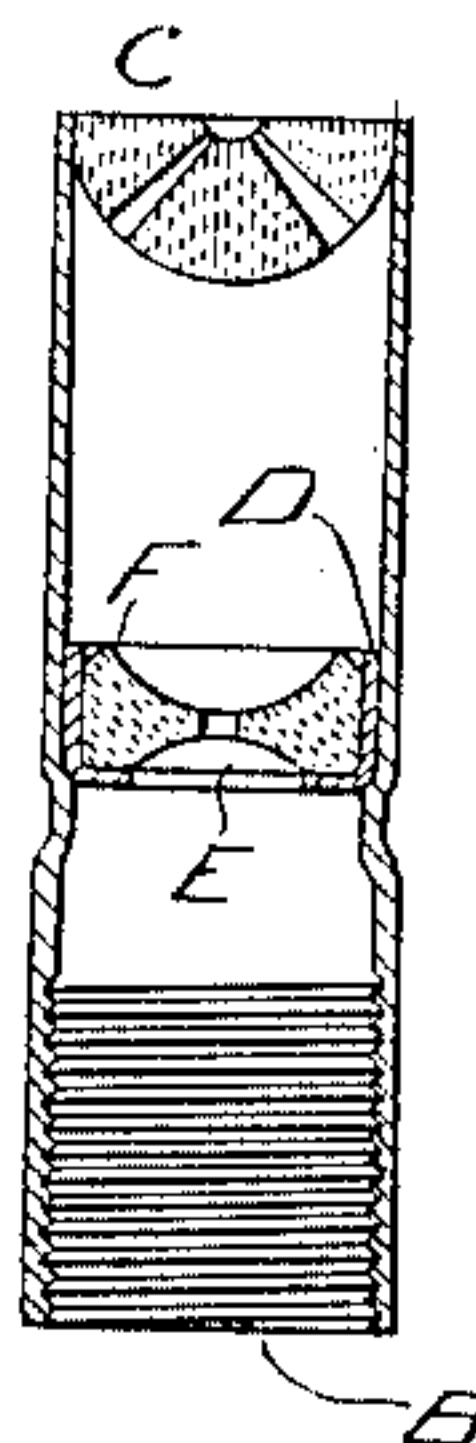


Fig. 4.



Fig. 2.

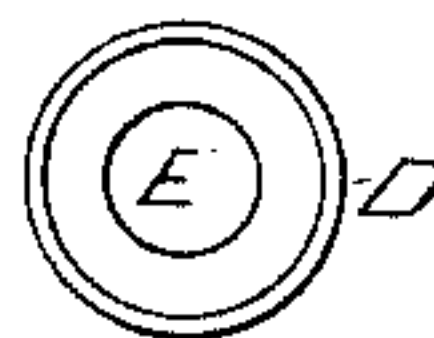


Fig. 5.



Fig. 3.

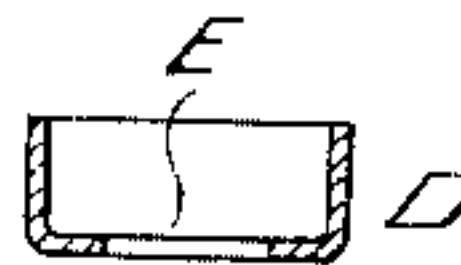


Fig. 6.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE BRAY, OF LEEDS, ENGLAND.

## CONSTRUCTION OF GAS-BURNERS.

SPECIFICATION forming part of Letters Patent No. 659,843, dated October 16, 1900.

Application filed April 26, 1900. Serial No. 14,484. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE BRAY, a subject of the Queen of Great Britain and Ireland, whose postal address is Bagby Works, Leeds, in the county of York, England, have invented certain new and useful Improvements in the Construction of Gas-Burners, (for which I have applied for provisional protection in Great Britain, No. 6,361, dated April 5, 1900,) of which the following is a specification.

This invention has for its object the construction of that class of gas-burners in which a "diminisher" is introduced; and the object of the invention also is to secure the diminisher within the burner-socket in such a manner that a gas-tight joint is made between the diminisher and socket and to so form the said joint that on nipping the exterior of the socket the liability of damaging the diminisher is reduced and the gas-tight joint preserved should the contour of the socket be to some extent disturbed on screwing the burner into or out of the gas-fitting. Hitherto diminishers have been placed within the burner-socket, and the joint between the exterior of the diminisher and interior of the socket has generally been made with cement of the consistency of paint, the result being that the diminisher is rigidly held in its position, so that on nipping the exterior of the socket when screwing the burner into the nipple of the gas-fitting should the burner-socket become distorted the circumferential joint of the diminisher is broken, thus allowing gas to pass, or in some cases the diminisher is fractured, thus destroying the efficiency of the diminisher and resulting in a waste of gas.

In order that my invention may be thoroughly understood, I will describe same by making reference to the accompanying drawings, in which—

Figure 1 represents an elevation of a gas-burner socket suitable for having my improvement applied thereto. Fig. 2 is a plan of a diminisher suitable for introduction within the burner-socket. Fig. 3 is a sectional elevation of same. Fig. 4 is a vertical sec-

tion through a gas-burner arranged in accordance with my invention. Fig. 5 is a plan of a cup used for making the joint between the diminisher and burner-socket, and Fig. 6 is a section through the said cup.

Similar letters indicate similar parts where they appear, and all the views are drawn to an enlarged scale for more clearly showing the construction.

The metal socket of the burner is indicated by the letter A and is threaded at B for screwing upon the gas-fitting and may be provided with a union jet-tip C, as shown.

In carrying out my invention in order to avoid the before-mentioned defects I form a cup D, of yielding material—such as, for example, cardboard—the cup D having a hole E through the base of suitable diameter, so as not to interfere with the passage of the gas, and into the cup D is placed a diminisher F of ordinary configuration. These are pressed into the interior of the socket A, the cup D, of cardboard or other suitable yielding material, supporting the diminisher F, thus forming a gas-tight joint around the same. It will thus be seen that on subjecting the exterior of the gas-burner socket A to the necessary pressure required on the use of the pliers to screw the burner into the fitting the joint, being of the nature of a cushion, yields and protects the diminisher F from breakage or deformity and at the same time preserves a gas-tight joint.

What I claim as my invention is—

In combination with the burner-socket A, threaded to engage with a gas-fitting, the opposite end of said socket provided with a tip C, a "diminisher" F, placed within a cup D of yielding material applied within the socket A, substantially in the manner as shown and described and for the purpose set forth.

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

GEORGE BRAY.

Witnesses:

WM. PREST,  
P. CLAPHAM.