

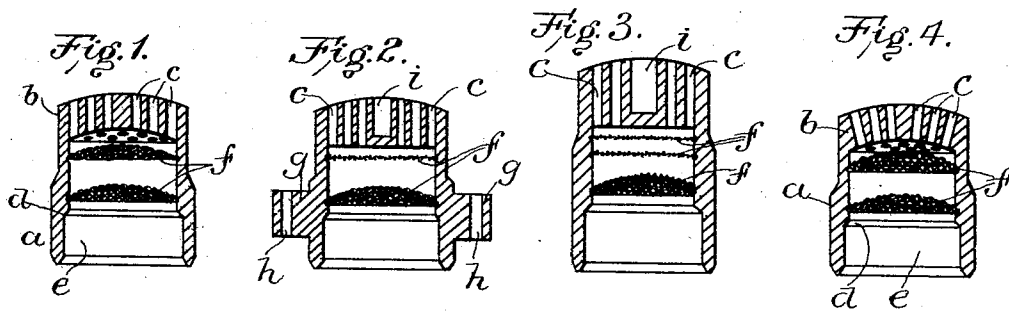
No. 782,885.

PATENTED FEB. 21, 1905.

J. E. TRUCKSES.

CAP FOR INCANDESCENT BURNERS.

APPLICATION FILED MAR. 2, 1904. RENEWED DEC. 31, 1904.



Witnesses.

H. Brown

E. Datchelder

Inventor:

John E. Truckses
by Wright, Brown & Quincy
Attys

UNITED STATES PATENT OFFICE.

JOHN E. TRUCKSES, OF BOSTON, MASSACHUSETTS.

CAP FOR INCANDESCENT BURNERS.

SPECIFICATION forming part of Letters Patent No. 782,885, dated February 21, 1905.

Application filed March 2, 1904. Renewed December 31, 1904. Serial No. 239,130.

To all whom it may concern:

Be it known that I, JOHN E. TRUCKSES, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Caps for Incandescent Burners, of which the following is a specification.

This invention relates to burner-caps particularly intended for use in connection with the burners of the Welsbach incandescent type.

The object of the invention is to provide a novel non-conducting cap for the burner or supply tube, said cap being so constructed that it will fit over and upon the upper end of said supply-tube and prevent the conduction of heat from the flame down to and through the supply-tube, thereby avoiding overheating of the gas within such supply-tube.

The invention is particularly designed for use where a previously-mixed supply of gas and air is employed. When such a mixture passes through the supply-tube, if the latter becomes hot there is liability of explosion within the tube in spite of the presence of foraminous diaphragms, which are commonly used and frequently required by law.

To these ends my invention consists in the construction of a cap substantially as hereinafter described and claimed.

Of the accompanying drawings, each of the four figures represents a sectional view of a burner-cap embodying my invention, the four figures representing slightly different forms, as will be more fully hereinafter described.

The burner-cap as a whole is represented as comprising a shell or cylindrical portion *a*, having a reduced portion provided with a perforated top *b*, the whole made of a suitable refractory non-conducting material, such as steatite, or what is commonly termed "lava." The top portion and the shell portion are integral, being molded of such refractory material as above mentioned. The top portion is provided with passages or perforations *c* for the combined gas and air, which is supplied through the usual tube (not shown) of a burner of the Welsbach type. The lower

portion of the shell is machined out or internally finished, as at *e*, so as to closely fit outside of the upper end of the usual metal supply-tube. The internal shoulder *d* above the finished inner surface *e* forms a stop to limit the downward movement of the cap upon the supply-tube. Between the shoulder *d* and the top *b* is formed a mixing-chamber, in which may be located one or more foraminous diaphragms *f*, such as the wire-gauze disks commonly employed. The arrangement of these diaphragms may be according to any preferred structure or form.

In Figure 2 I have shown the sides of a cap as formed with lugs *g*, having sockets *h*, adapted to receive the mantle-supporting compound rods commonly employed. Since some mantles are supported by means of a center rod, I may form a socket *i* in the center of the top *b*, as indicated in Figs. 2 and 3, which socket *i* may receive either a mantle-supporting rod or a flame-deflector.

In Figs. 1, 2, and 3 the perforations or passages *c* are shown as parallel with each other. I prefer, however, in some cases to form said perforations as shown in Fig. 4, in which they diverge from the lower to the upper surface of the top *b*, and therefore distribute the mixed air and gas more thoroughly and directly against the mantle, which will be supported above the cap.

It will now be understood that owing to the fact that the cap is made entirely of a refractory non-conducting material there is practically no liability of any appreciable amount of heat being conducted to the supply-tube. This is because there is not only quite an appreciable length of the cap of refractory material above the shoulder *d*, but also because there is a considerable amount of refractory material extending downward and surrounding the upper end of the usual supply-tube.

I claim—

1. A burner-cap comprising a shell or casing provided with an internal shoulder and exterior perforated lugs, said casing having an upper reduced portion provided with an integral perforated top, a mixing-chamber be-

ing formed between said shoulder and said top, said top being also provided with a central recess or socket.

2. A burner-cap comprising a shell or casing
5 provided with an internal shoulder, said casing having an upper reduced portion provided with an integral perforated top, a mixing-chamber being formed between said shoulder

and said top, and foraminous diaphragms located within said chamber.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN E. TRUCKSES.

Witnesses:

A. W. HARRISON,
R. M. PIERSON.