No. 800,899. PATENTED OCT. 3, 1905.

F. M. BROOKS.

INCANDESCENT LAMP.

APPLICATION FILED SEPT. 17, 1904.

Fig. 1.

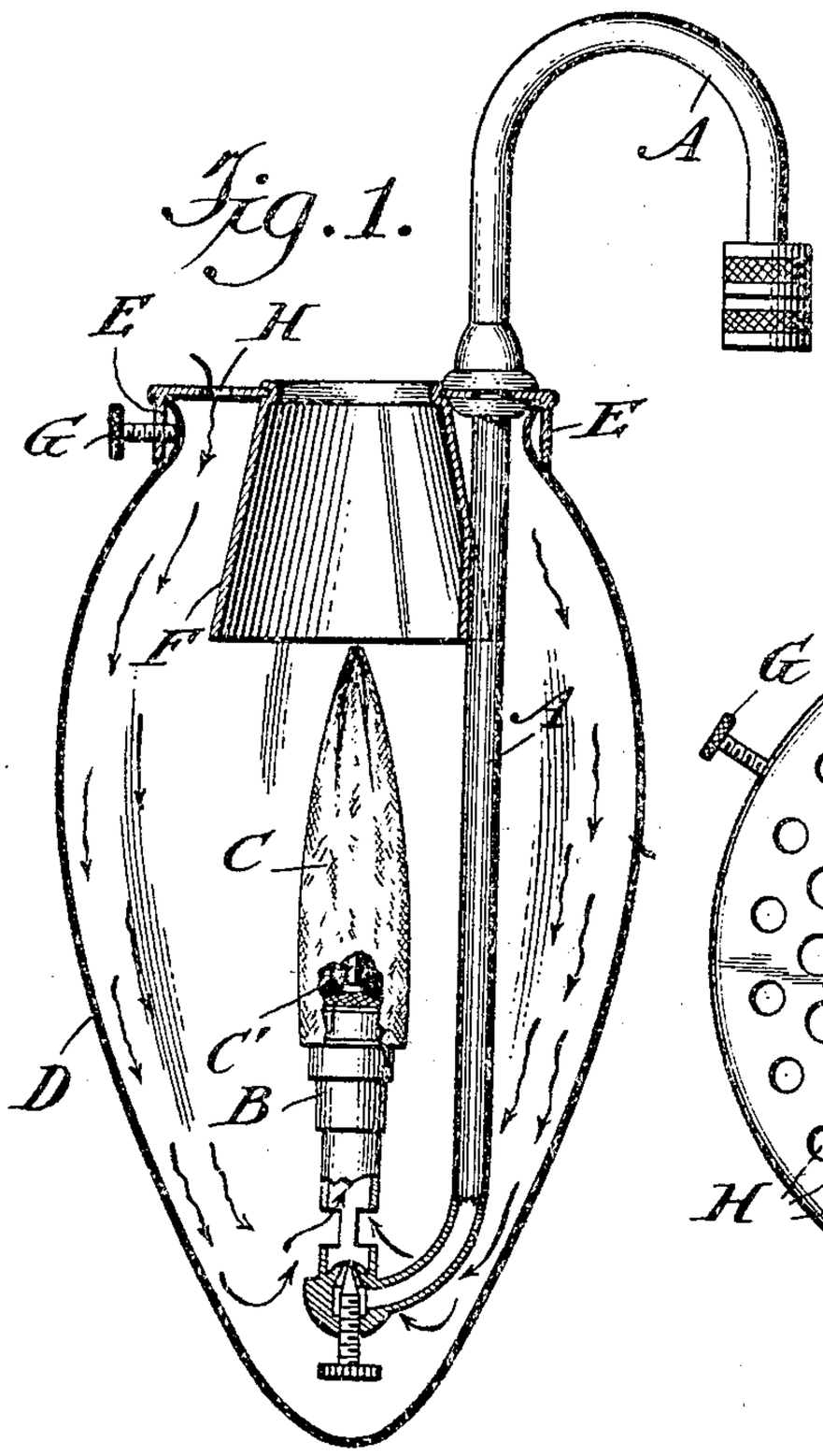


Fig. 2.

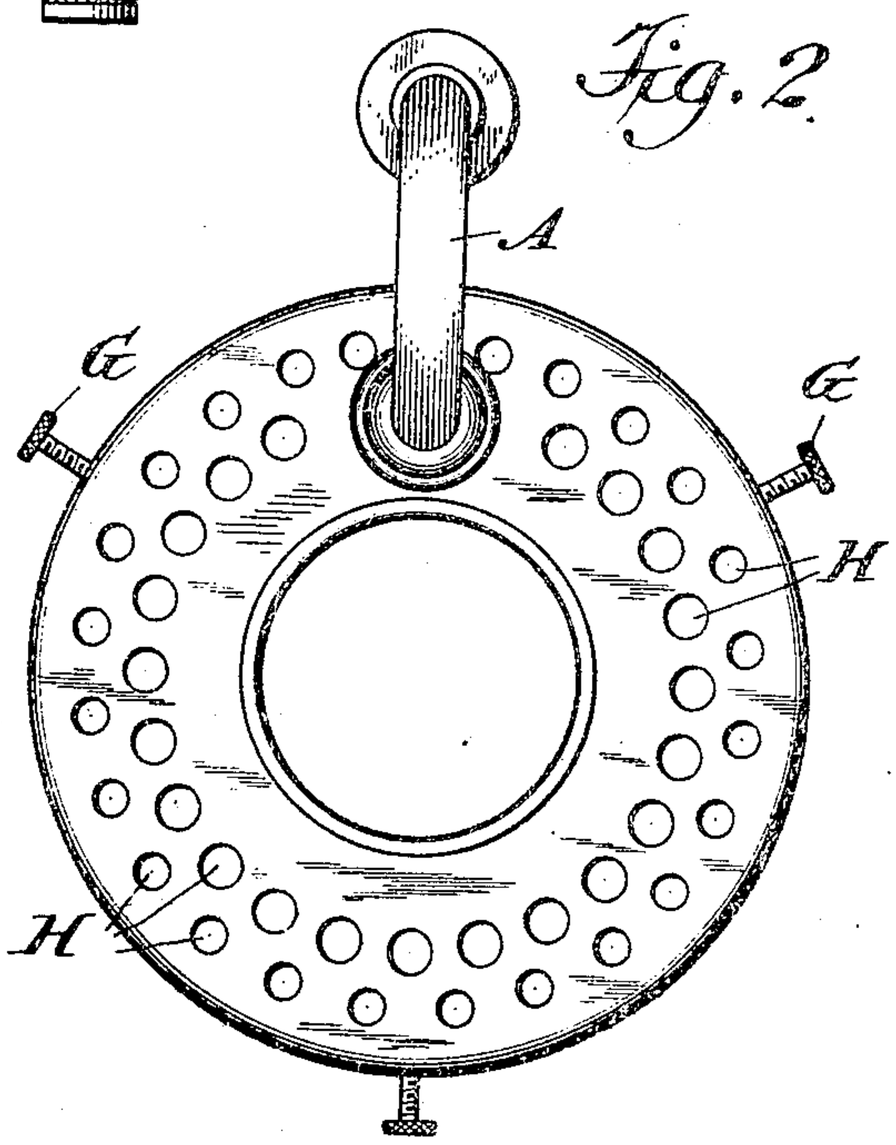


Fig. 3.

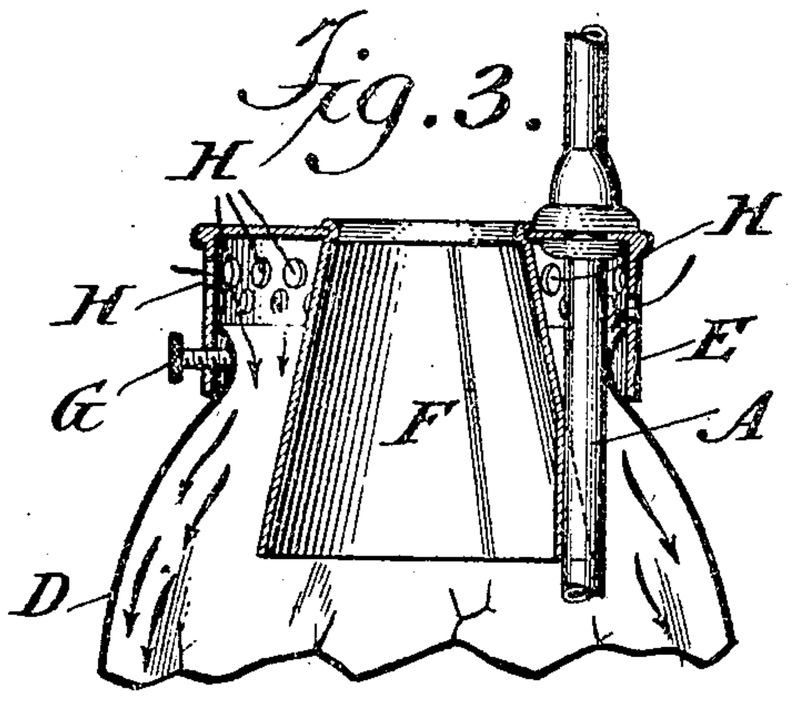
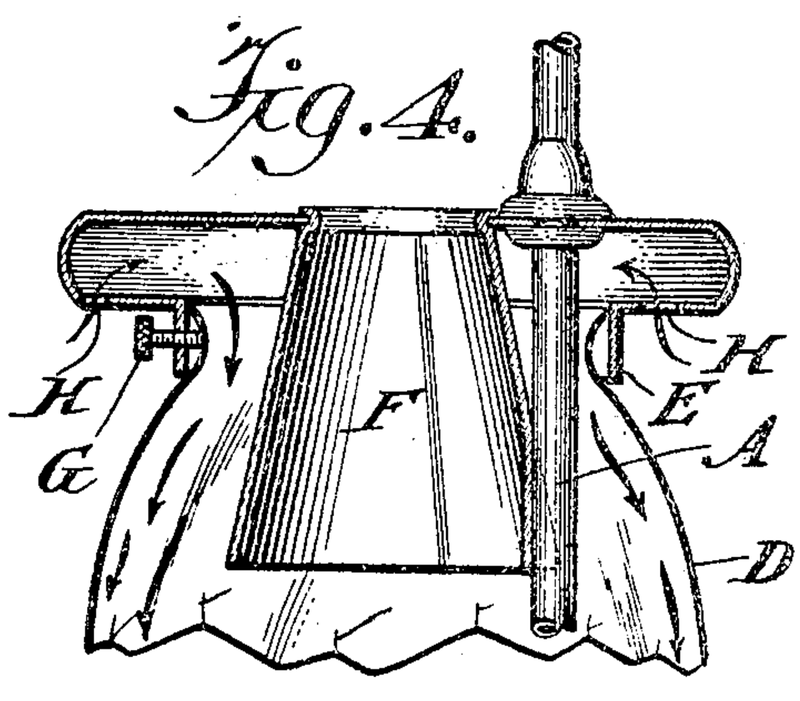


Fig. 4.



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UNITED STATES PATENT OFFICE.

FRANK M. BROOKS, OF NEW YORK, N. Y.

INCANDESCENT LAMP.

No. 800,899. Specification of Letters Patent. Patented Oct. 3, 1905.

Application filed September 17, 1904. Serial No. 224,823.

To all whom it may concern:

Be it known that I, FRANK M. BROOKS, a citizen of the United States, and a resident in the borough of Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Incandescent Lamps, of which the following is a description, reference being had to the accompanying drawings, in which—

Figure 1 illustrates a vertical sectional view of the invention, shown partly in elevation. Fig. 2 illustrates a plan view of that which is shown in Fig. 1, seen from above. Fig. 3 illustrates a sectional view of a modified construction of the globe-holder. Fig. 4 illustrates a sectional view, similar to Fig. 3, of still another modified construction of the globe-holder.

A represents the gas-supply pipe; B, the burner; C, the mantle; C′, the mantle-supporting rod; D, the globe; E, the globe-holder; F, the draft-inducing funnel; G, the thumb-screws which suspend the globe from the globe-holder.

My globe is not provided with any openings at its lower part through which the air can enter for supplying the flame with oxygen, as is usually the case in lamps of this construction. On the contrary, it is solid or continuous throughout, and I supply the drafts from above through openings H H, made in the globe-holder. The upward draft tends to produce a vacuum in the lower part of the globe, and the air-currents which enter the holes H H are deflected outwardly by the exterior walls of the funnel F and pass downwardly along the inner walls of the globe, as indicated by the arrows, thus keeping them and its lower part quite cool during the time the lamp is in operation, and owing to the conical or rounded contour of the lower part of the globe the air-drafts are there directed inwardly and discharged immediately upon the burner. Thus I secure most perfect draft and complete combustion.

Among the advantages secured by my invention are the fact that the globe is always comparatively cool; also, there being no openings in the lower part of the globe the mechanical parts of the burner within it are not in sight when a ground or frosted globe is used, and the effect is consequently more pleasing than when they are observable.

Although I prefer to make the air-inlet or draft holes H H in the upper surface of the globe-holder, as shown in Figs. 1 and 2, yet under certain conditions, especially if the globes hang high up or are otherwise difficult of access, I sometimes make the globe-holders in such manner that the draft-holes will be on the vertical or under side thereof. In this way dust or foreign matter cannot fall into the globe through the draft-openings, which might necessitate somewhat frequent cleaning of the globes. In Figs. 3 and 4 I show two modified constructions of the holders in which the air-holes H H are made in the vertical sides of the holders, as in Fig. 3, and in the under side thereof, as in Fig. 4.

In the drawings hereof I show the funnel F in the form of a truncated cone. Such shape is not essential, however. It may be parallel-sided or have such other conformation as preferred. Its functions, in conjunction with the other parts of the structure, are to induce and direct the draft and also to accelerate and direct the incoming current of cold air, causing it to pass downwardly near the walls of the globe, so that the incoming cold air constitutes downwardly-moving exterior currents and the heated upwardly-moving air constitutes an interior current. Thus the funnel acts as an initial or primary separator for the oppositely-moving currents of cold and heated air.

Although I have described and illustrated the funnel in combination with the other parts of my structure and referred to its functions as important nevertheless I do not wish to limit myself to a lamp in which a funnel is embodied as an essential element, because it is possible for the lamp to work with reasonable satisfaction without any funnel at all, there being simply a central hole or opening in the globe-holder through which the upward draft of heated air may escape. The result, however, is not so good as when a funnel is employed. I therefore prefer to embody the funnel.

It will be obvious to those who are familiar with such matters that the details of construction may be varied from those shown by me and yet the essentials of the invention be retained. I therefore do not limit myself to such details.

I claim—

In an incandescent lamp the combination of a gas-supply pipe, a burner, a mantle, a globe having an opening at the top only, a globe-holder made in the form of a shallow inverted

pan, and provided with air-inlet openings and which pendently supports the globe, it being itself supported by the gas-supply pipe, and a funnel-shaped deflector supported at its upper end by the globe-holder and depending wholly below the same within the upper part of the globe, its lower edge being about on a horizontal line with the upper part of the mantle and which separates and guides the incoming cold-air currents from the hot-air currents.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK M. BROOKS.

Witnesses:

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