

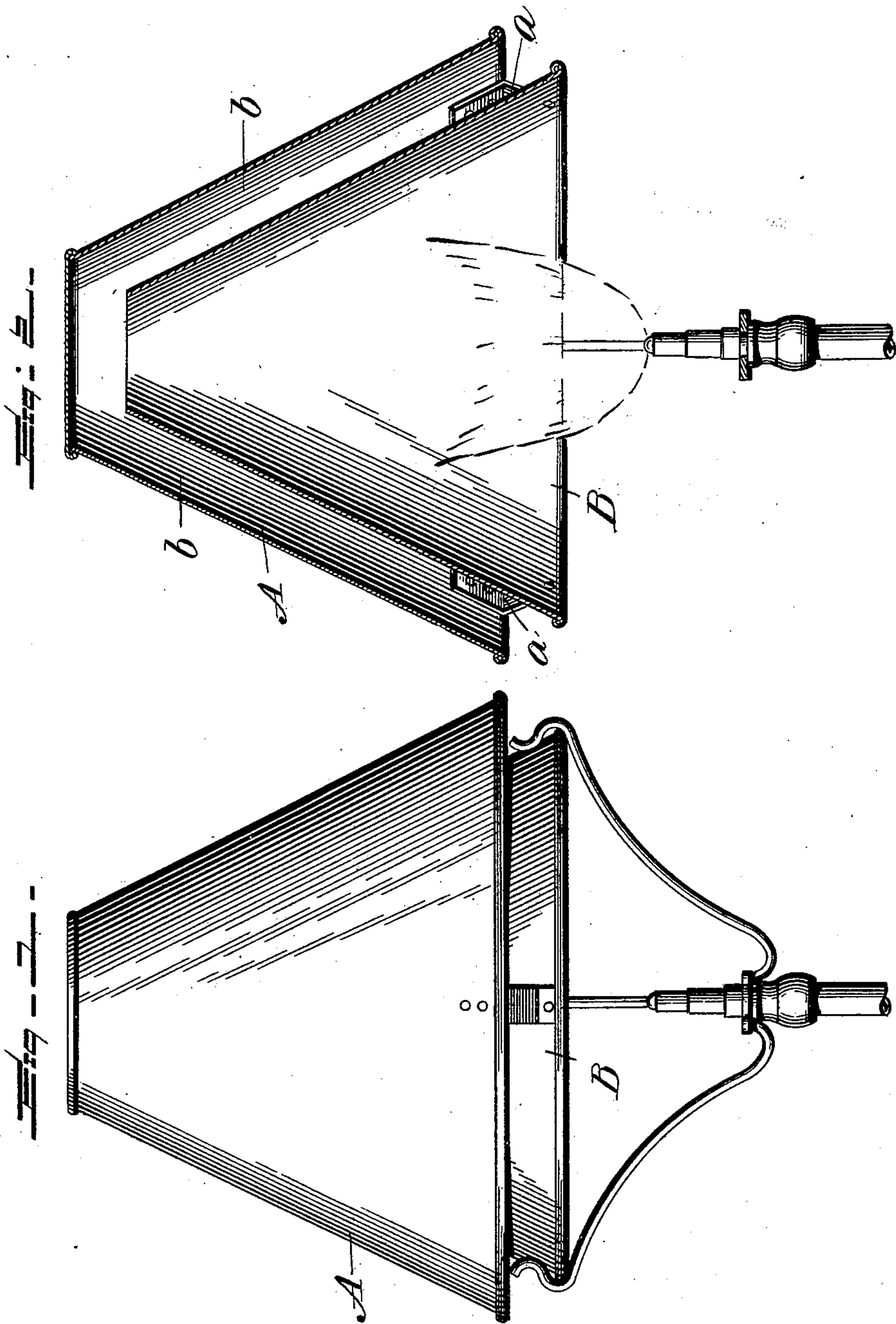
No. 677,650.

Patented July 2, 1901.

A. M. FORRESTER.  
HEATING ATTACHMENT FOR GAS BURNERS.

(Application filed Jan. 21, 1901.)

(No Model.)



WITNESSES.

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# UNITED STATES PATENT OFFICE.

ABRAHAM M. FORRESTER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR  
OF ONE-HALF TO LIZZIE F. HALE, OF SAME PLACE.

## HEATING ATTACHMENT FOR GAS-BURNERS.

SPECIFICATION forming part of Letters Patent No. 677,650, dated July 2, 1901.

Application filed January 21, 1901. Serial No. 44,137. (No model.)

*To all whom it may concern:*

Be it known that I, ABRAHAM M. FORRESTER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Heating Attachments for Gas-Burners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention consists in an attachment for gas-burners for heating a room.

The best form in which I have contemplated embodying my invention is shown in the accompanying drawings, and my said invention is disclosed in the following description and claim.

In the said drawings, Figure 1 is a side elevation of my attachment secured to a gas-burner, and Fig. 2 is a vertical section of the same.

My attachment consists of two metallic parts A B, each of the form of a frustum of a cone or pyramid. The part B is placed inside of the part A, with a space between the two to form an expanding-passage *b* for the products of combustion and the heated air. In order to secure this, the interior part B is made smaller in all its dimensions than the exterior part A. The outer part A is closed at the top, while the inner part B is open. The two parts are held the proper distance apart by the brackets *a*, as shown in the drawings, or by any other preferred means.

The device can be secured to any gas-burner by use of a spider of the same or analogous form to that employed to support a shade above the burner.

Upon lighting the gas the upper part of B and the part of A immediately above the flame of the burner become highly heated, the heat gradually extending to all portions of both parts by conduction. The strong upward draft caused by the gas-flame is deflected by the closed upper portion of the part A and is forced downward through the passage *b*. The air drawn in by the upward cur-

rent passing through the upper end of the part B is retarded and heated by the inwardly-inclining walls of B, or by mingling with the products of combustion is heated by them and by the upper portion of the part A, with which they come in contact, and the heat so imparted is maintained if not increased by the passage of the air-current downward through the passage B. The air-current so formed is found to be quite strong, and it is found to descend four or five feet below the heater, warming the lower part of the room.

I have contemplated applying the attachment to oil-lamps by using a suitable supporting frame or spider.

The said attachment may be slightly varied in proportions and shape or ornamented, as the maker may prefer, so long as the principle of operation is retained.

What I claim, and desire to secure by Letters Patent, is—

A heating attachment for gas-burners, comprising an outer conical part and an inner conical part said parts being open at their lower ends and adapted to be supported directly above the burner, the main portion of the inner part being within the outer part and provided with a wide opening at its upper end, the outer conical part being closed at its upper end and having its walls substantially parallel with those of the inner part, the two forming an annular passage between said inner and outer parts, whereby the inner part will become highly heated and will radiate heat inwardly, and also outwardly into the passage aforesaid, and whereby a strong current of air and the products of combustion will pass up within the inner part, pass freely into said annular passage and be deflected sharply downward below the attachment, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

ABRAHAM M. FORRESTER.

Witnesses:

D. S. LINDSAY,  
ORLANDO KELSEY.