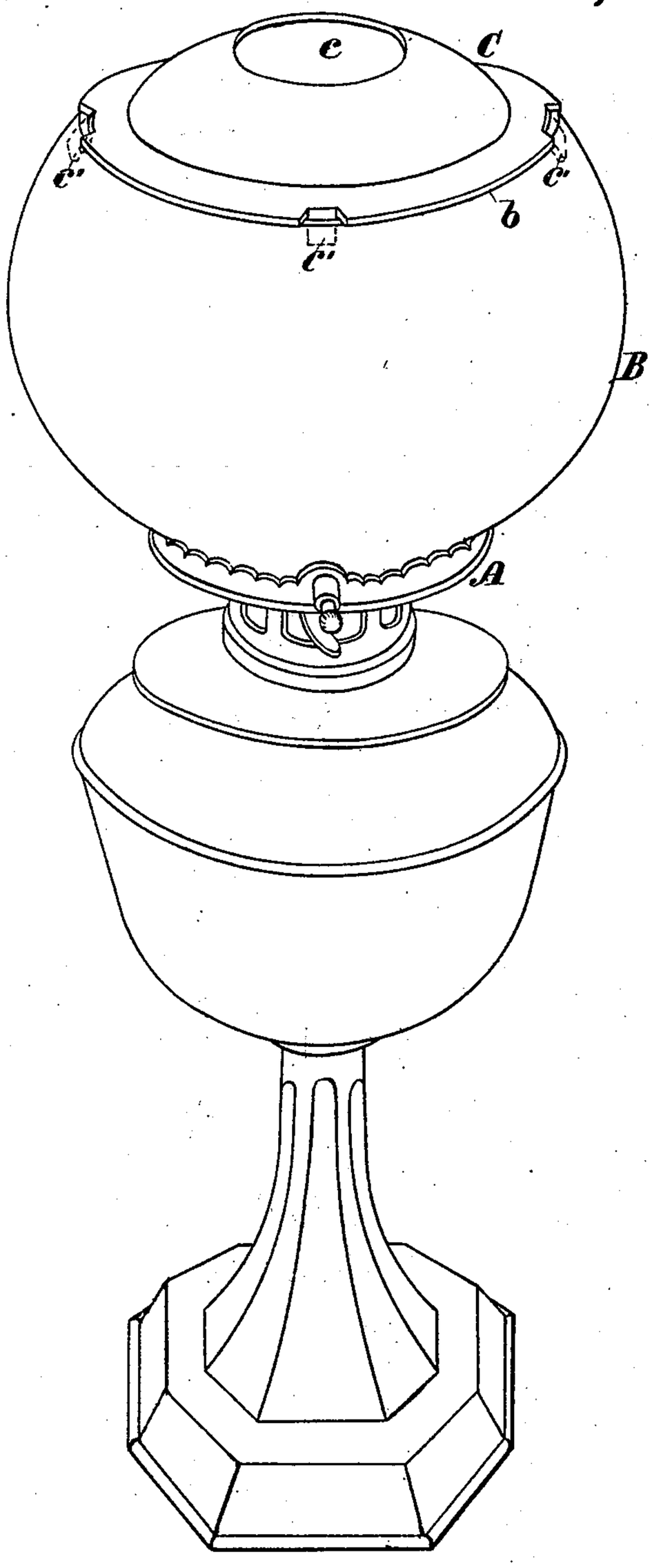
A. COMBS.

Metallic-Top for Burner-Globe.

No. 206,539. Patented July 30, 1878.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ABEL COMBS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN METALLIC TOPS FOR BURNER-GLOBES.

Specification forming part of Letters Patent No. **206,539,** dated July 30, 1878; application filed May 21, 1878.

To all whom it may concern:

Be it known that I, ABEL COMBS, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Metallic Tops for Burner-Globes; 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 pertains to make and use it, reference being had to the accompanying drawing, which forms part of this specification, and which is a perspective of a lamp with my improvements applied thereto.

My invention has for its object to provide means whereby a glass globe, such as is commonly employed to steady the flame of a gas-burner, may be employed as a substitute for a chimney in connection with a lamp-burner.

My invention consists in the provision and employment of a metallic disk having a central opening or aperture of about the diameter of a lamp-chimney, said disk being applied to a common glass globe so as to form a top thereto, said globe being fastened on the lamp-burner in the same manner as lamp-chimneys are usually fastened.

Referring to the accompanying drawing, A indicates a lamp-burner, and B a glass globe, both of any usual or ordinary construction. C is a metallic disk applied to the upper opening, *b*, of the globe, forming a top for said globe. This disk is preferably of the concavo-convex form shown, but is not necessarily so, and may be flattened or less dished, if so desired.

Said disk is formed with a central opening, *c*, of or about the diameter of the top of a lamp-chimney. Around the edge of this disk are formed lugs *c'*, or other retaining devices, whereby said disk is kept firmly in position on the globe.

The effect of this improvement is, that a lamp provided therewith burns quite as steadily and brightly as does one provided with a chimney. The metal disk above the flame is not injuriously affected by the heat, as glass in the same position would be. It serves to heat the air within the globe, and thus cause an ascending current, the heated air passing out at the central opening, and its place being supplied by cold air rushing in around and beneath the base of the globe, and which supplies the required oxygen to support the combustion at the burner. The ascending current of air forms a sort of atmospheric chimney, extending from the burner to the opening *c*, serving to steady the flame and produce excellent illumination.

The globe, standing around at a considerable distance from the flame of the burner, does not become so highly heated as to expand to any considerable extent, and hence is not subject to great or sudden contraction. Hence a globe used with my improvement will never, in ordinary use, break by expansion or contraction, whereas, as is well known, lamp-chimneys are constantly breaking from these causes. Herein constitutes a very great advantage of my improvement over chimneys.

Another advantage is, that the globe does not become smoked as quickly as a chimney, and is much more easily cleaned, the large upper opening permitting the easy insertion of a hand with cloth to remove soot, &c. The disk also serves as a reflector, and by throwing down the rays of light, which, with a chimney unprovided with a shade, ascend uninterruptedly, enhances the useful effects of the lamp, particularly for reading, sewing, &c., where a concentration rather than a diffusion of such rays is desired.

I am aware that an adjustable cap or damper has been used on lamp-chimneys to diminish the flow of air and regulate combustion; but this device in no wise conflicts with my improvement, which is designed for globes, and so adapted thereto that the use of a chimney is altogether unnecessary.

The cap or damper to which I have reference, and which I specifically disclaim, consists of a metallic annular disk having depending spring-arms, which embrace the chimney and serve to hold the device in position.

What I claim as my invention is—

1. A metallic disk for glass globes, having a central opening, *c*, and adapted to be fitted to a globe as a substitute for a lamp-chimney, substantially as set forth.

2. The combination, with a burner, A, of a glass globe, B, and metallic disk C, having central opening *c*, said globe and disk forming a substitute for a chimney, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of May, 1878.

ABEL COMBS.

Witnesses:
GEO. C. SHELMERDINE,
M. D. CONNOLLY.