

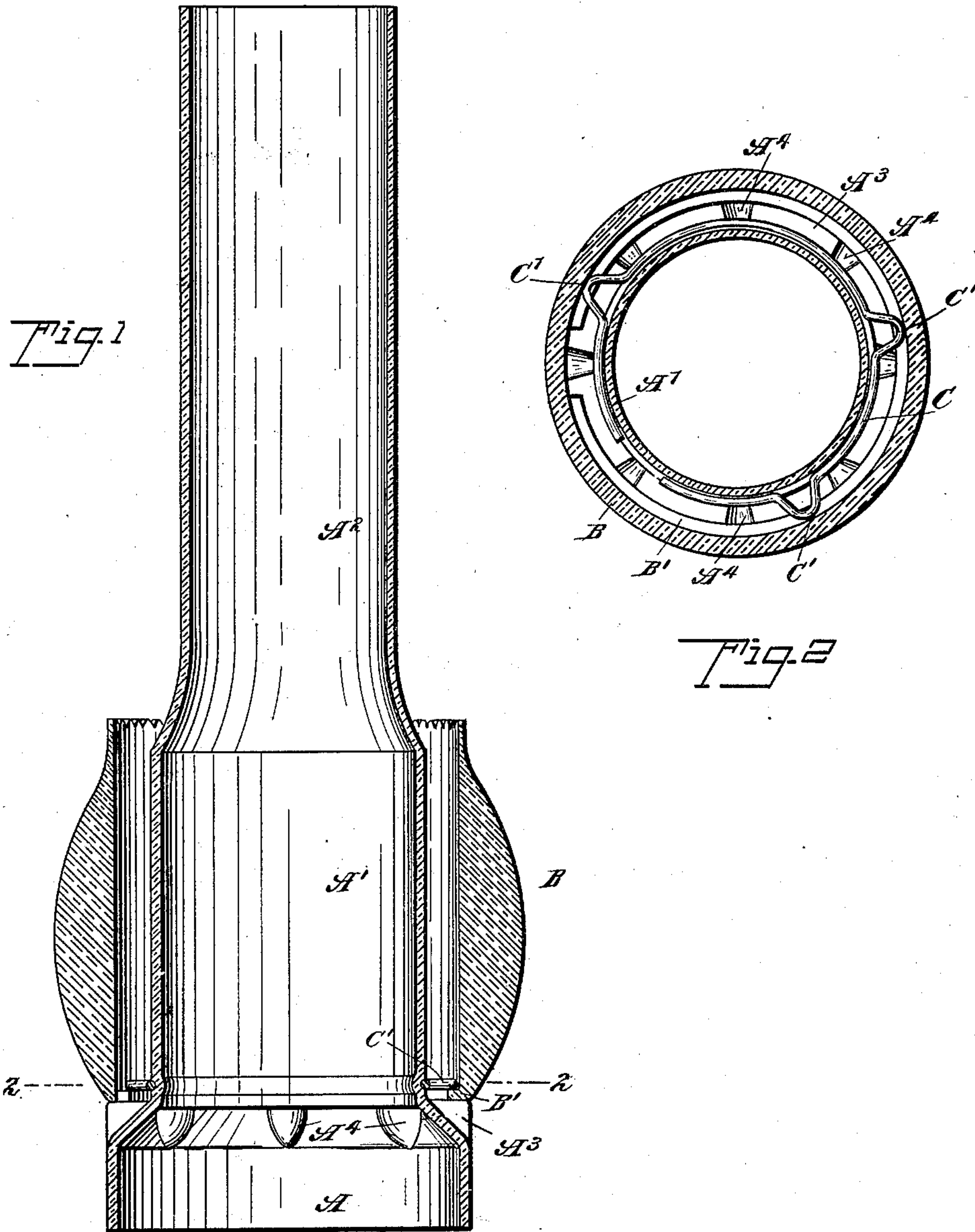
No. 652,565.

Patented June 26, 1900.

J. C. MOLLOY.  
LENS ATTACHMENT FOR LAMPS.

(Application filed July 12, 1899.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN CHRISTOPHER MOLLOY, OF CINCINNATI, OHIO, ASSIGNOR OF THREE-EIGHTHS TO CORNEAL J. McWILLIAMS AND JOHN SCHULTE, OF SAME PLACE.

## LENS ATTACHMENT FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 652,565, dated June 26, 1900.

Application filed July 12, 1899. Serial No. 723,580. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN CHRISTOPHER MOLLOY, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and Improved Lens Attachment for Lamps, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved lens attachment for lamps designed to increase the illuminating power of a lamp.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of my invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the views.

Figure 1 is a sectional side elevation of the improvement, and Fig. 2 is a sectional plan view of the same on the line 2 2 in Fig. 1.

As shown in the drawings, the cylindrical lamp-chimney is provided with a base A, the cylindrical burner portion A' being somewhat less in diameter than the base and terminating in a still more reduced top portion A<sup>2</sup>. On the junction between the base A and the cylindrical flame or burner portion A' is arranged an annular external saddle or seat A<sup>3</sup>, on which is adapted to rest the lower end of a lens B, made tubular and surrounding the burner or flame portion A', an air-space being between the inner surface of the lens and the portion A'. The lens B, as shown, is plano-convex; but I do not limit myself to the exact form shown.

On the lower end of the lens B is formed an inwardly-extending flange B' for increasing the seating-surface of the lens on the saddle A<sup>3</sup> and for receiving the outer ends of bends or projections C' in a ring C, preferably of split form and seated in an annular groove in the chimney, as is plainly shown in Fig. 1, said ring serving to hold the lens B concentric to the chimney and leave a uniform air-space between the lens and the chimney.

In order to allow air to circulate through the air-space to keep the lens and chimney as

cool as possible, I prefer to form the saddle A<sup>3</sup> with recesses A<sup>4</sup> to allow the air to pass to the lower end of the air-space and ascend therein and pass out of the same at the upper end of the lens.

By the arrangement described the lens is securely held in place on the chimney when the latter is placed in position on the lamp, and when the burner is lighted then the rays of light from the flame pass through the chimney portion A' and are refracted by the lens B into the room, so that the latter is very highly illuminated.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A lens attachment for lamps, consisting of a tubular lens adapted to surround a lamp-chimney opposite the flame or burner portion, a retaining and spacing device carried by the lamp-chimney for holding said lens in position concentric to the chimney to leave a uniform air-space between the lens and the chimney, and air-inlets leading to the lower end of the said air-space, substantially as described.

2. A lens attachment for lamps consisting of a tubular lens adapted to surround a lamp-chimney, and having an inwardly-extending flange at its lower end, and a spacing device engaging the said flange, to hold the lens concentric to the chimney, substantially as described.

3. The combination with a chimney provided with an external seat, of a tubular lens having an inwardly-extending flange at its lower end adapted to rest on the seat on the lamp-chimney, and a retaining and spacing device for holding the lens in position on the chimney and properly spaced therefrom, substantially as set forth.

4. The combination with a chimney, of a lens supported at its lower end thereon and surrounding the chimney at the flame or burner portion, and a ring carried by the chimney and engaging the lens to hold it properly spaced from the chimney, as set forth.

5. The combination with a chimney provided with an external saddle or seat, of a



tubular lens having a flange at its lower end adapted to rest on the said seat, and a device carried by the chimney and engaging the said flange to hold the lens in position and spaced  
5 from the chimney, as set forth.

6. The combination, with a chimney provided with an external saddle or seat, of a tubular lens set on the seat and spaced from the chimney, and a device for holding said  
10 lens to the seat and properly spaced from the chimney, as set forth.

7. The combination, with a chimney provided with an external saddle having recesses for the admission of air, of a tubular lens having an inwardly-extending flange at its lower  
15 end and set on said base, and a ring having projecting portions and held on the chimney and engaging the said lens at said flange, substantially as shown and described.

8. The combination with a lamp-chimney having an annular seat near its lower end, of a tubular lens adapted to surround the flame or burner portion of the chimney and rest on the said seat, the said lens being spaced from  
20 the chimney, and the said seat being provided with recesses to allow air to pass to the space between the lens and chimney, substantially as described.

9. The combination with a lamp-chimney  
25 provided with an external recessed seat, of a

tubular lens spaced from the chimney and adapted to rest on said seat, as set forth.

10. The combination with a lamp-chimney provided with a base of greater diameter than the flame or burner portion of the chimney, 35 the said chimney having an external seat located at or near the junction of the base and the flame or burner portion, of a tubular lens adapted to surround the flame or burner portion of the said chimney and rest with its  
40 lower end on the said seat, and means for holding the said lens in position on the seat and spaced from the chimney, the said seat being constructed to admit air to the lower end of the space between the lens and the  
45 chimney, substantially as described.

11. The combination with a lamp-chimney provided with an external seat and having an annular groove adjacent to the seat, of a tubular lens adapted to be seated on said seat, and  
50 a split ring of spring material adapted to be seated in said annular groove in the chimney the said ring having bends or projections arranged to engage the said lens, substantially as described.

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Witnesses:

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