

No. 638,302.

Patented Dec. 5, 1899.

R. W. WALMSLEY.
ATTACHMENT FOR LAMP CHIMNEYS.

(Application filed Feb. 18, 1899.)

(No Model.)

Fig. 1.

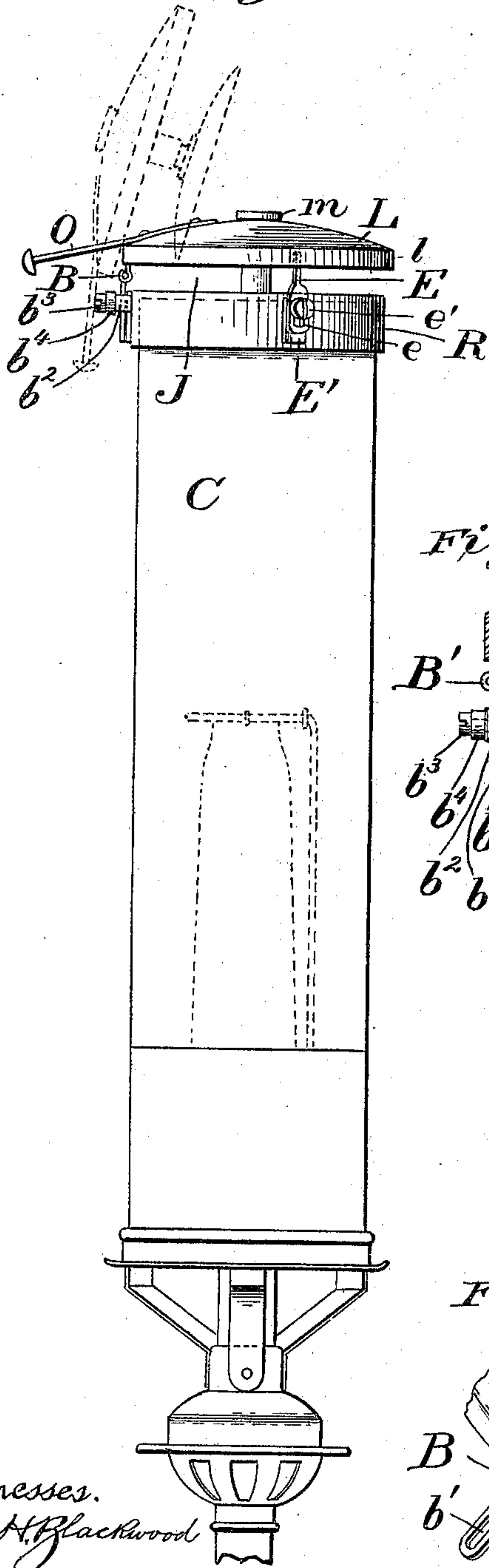


Fig. 2.

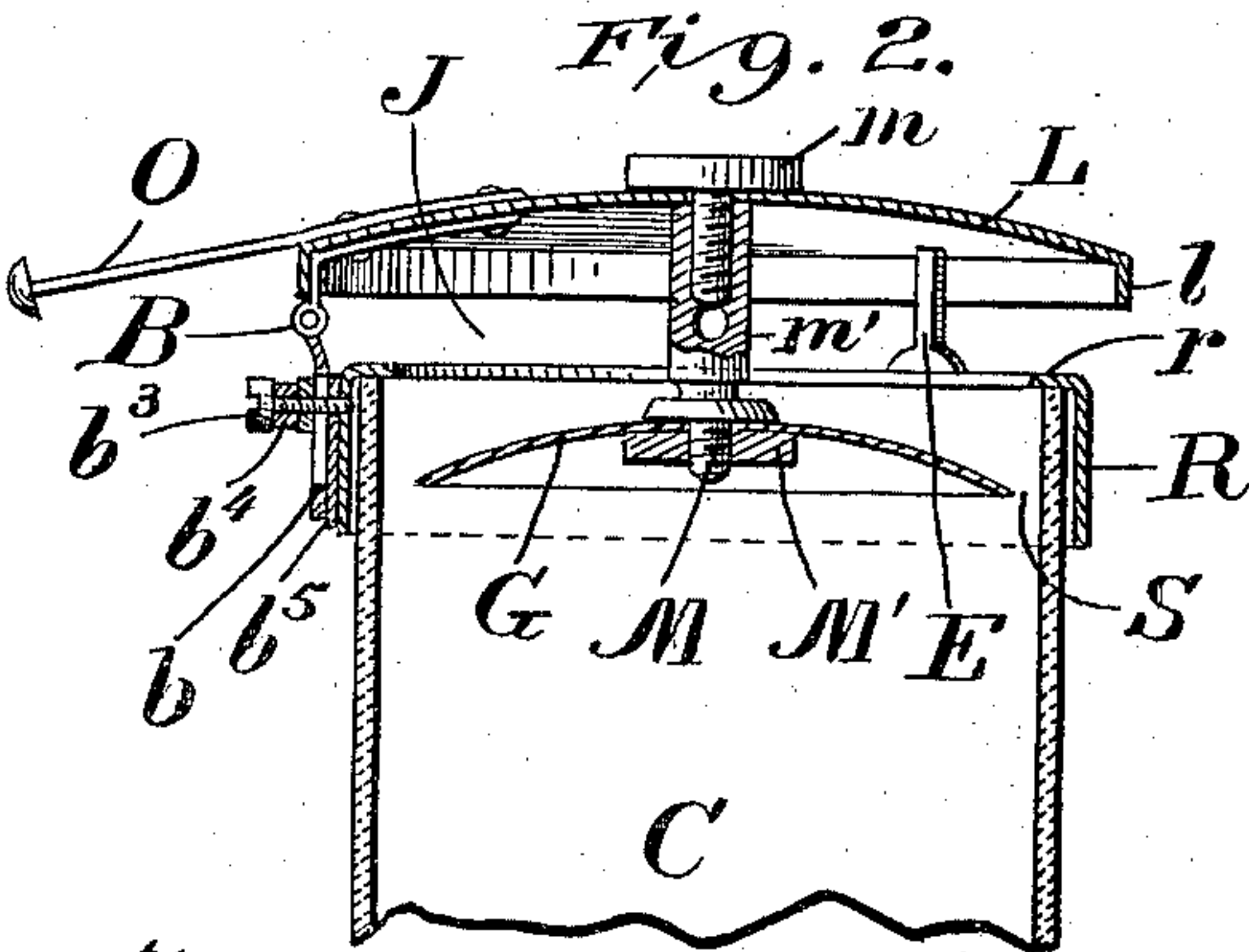


Fig. 7.

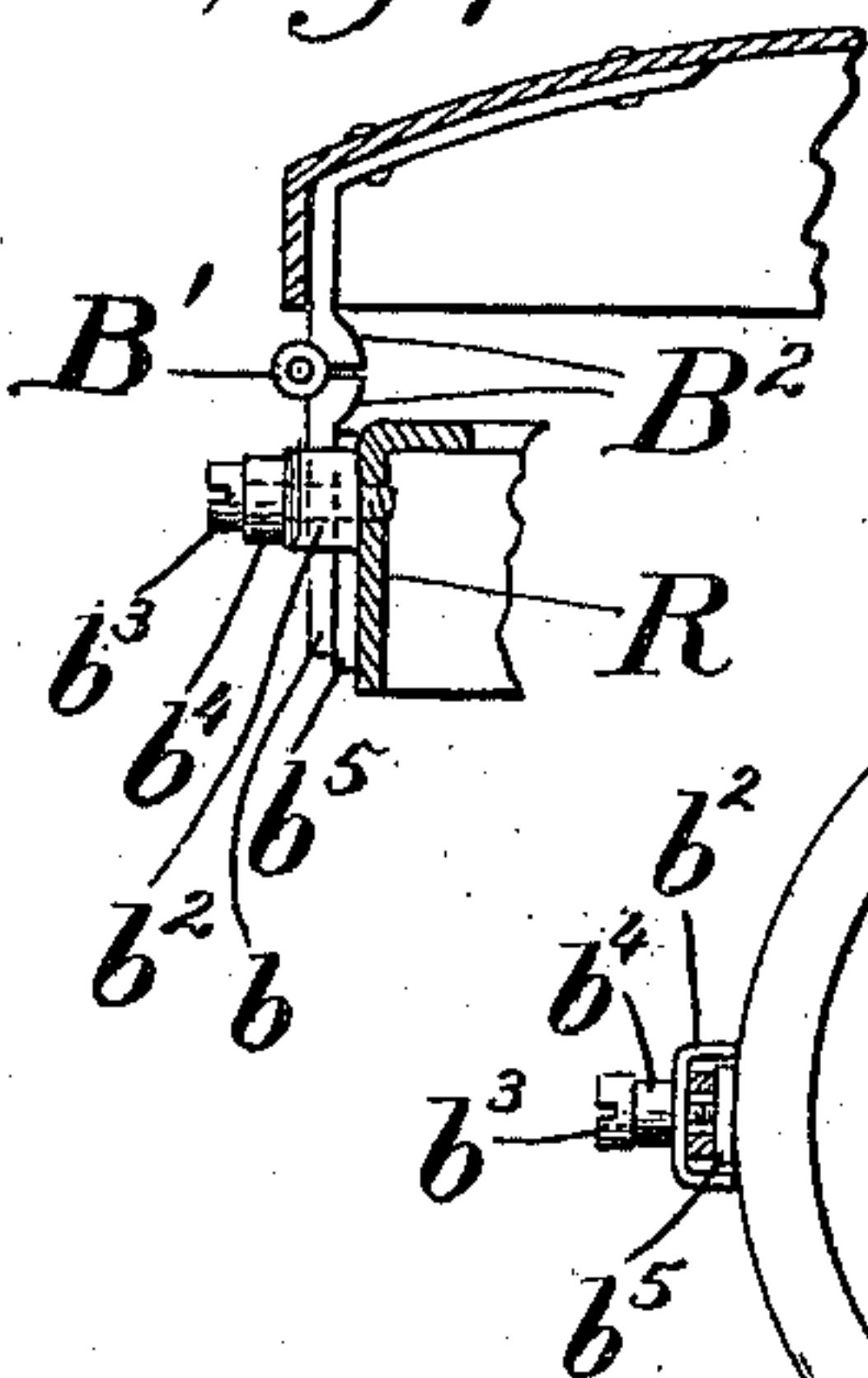


Fig. 3.

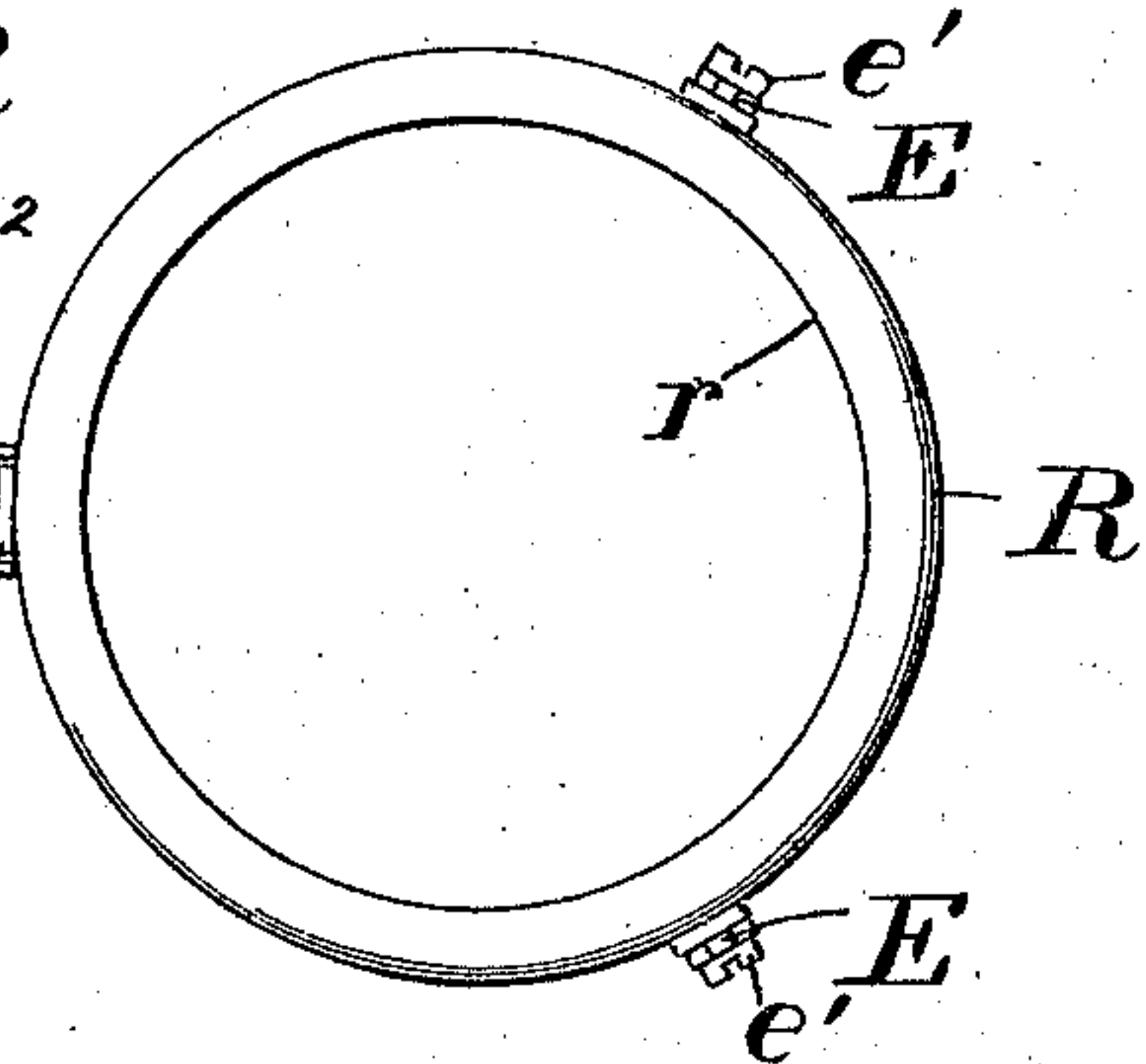


Fig. 5. Fig. 6.

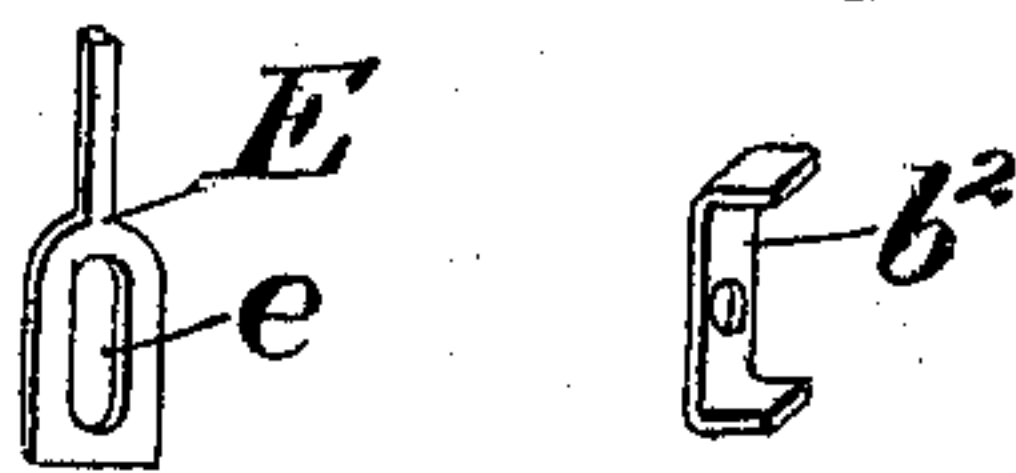
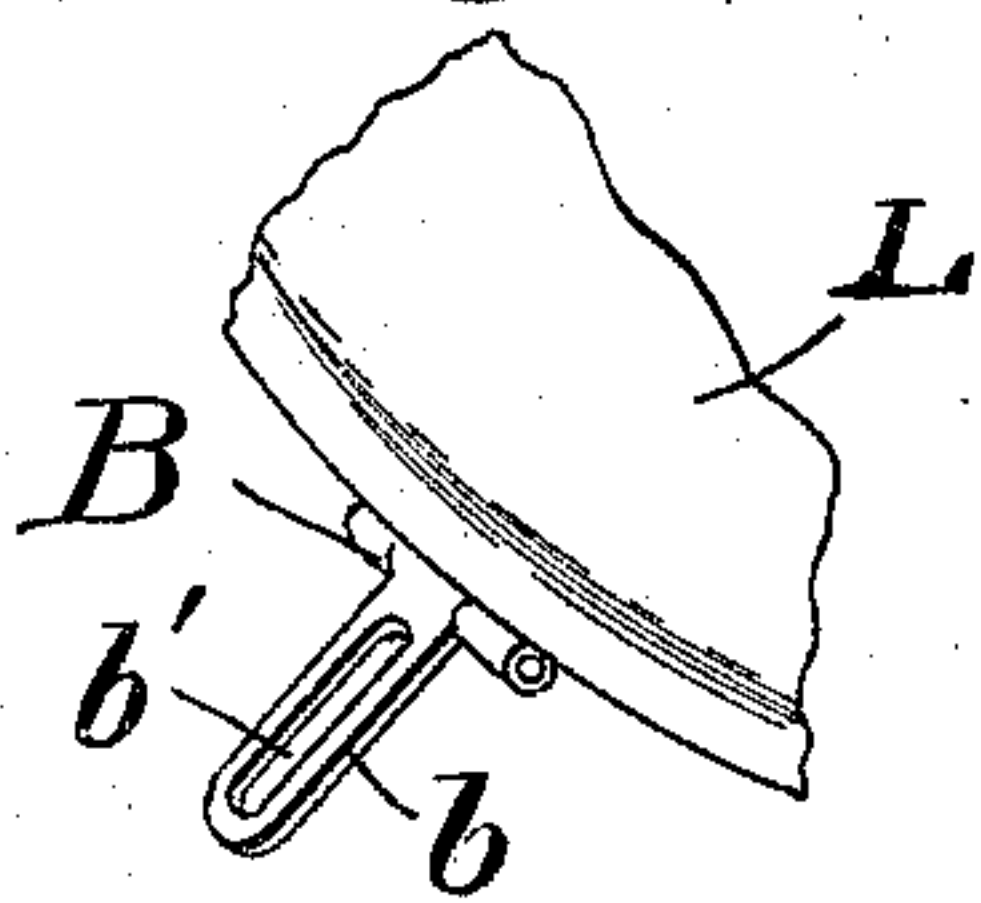


Fig. 4.



Witnesses.

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ATTACHMENT FOR LAMP-CHIMNEYS.

SPECIFICATION forming part of Letters Patent No. 638,302, dated December 5, 1899.

Application filed February 18, 1899. Serial No. 706,058. (No model.)

To all whom it may concern:

Be it known that I, ROBERT W. WALMSLEY, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in 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 invention relates to an improvement in devices for economizing heat and is intended, primarily, to be applied as an attachment to the chimneys of incandescent burners. It may also, however, be applied to other forms of lamps.

The object of my invention is to economize heat and fuel by checking and regulating the draft; and with this end in view my invention consists in the constructions and combinations of parts, as hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 represents in side elevation an incandescent burner with my invention applied thereto. Fig. 2 is a longitudinal central section of my invention, also showing a part of the lamp-chimney. Fig. 3 is a top view with the cover removed, parts being shown in section. Fig. 4 is a detail view showing the construction of the hinge. Fig. 5 is a perspective view of one of the adjustable rests. Fig. 6 is a perspective view, enlarged, of the clip through which passes the screw for securing the hinge of the cover upon the collar; and Fig. 7 is a fragmentary view showing a modified form of the hinge.

As shown in Fig. 1, my device may be suitably secured to the top of a lamp-chimney C by means of a collar R, provided with an inwardly-projecting shoulder r.

Firmly connected by a hinge B to the collar R is an inverted concave lid L, provided with a downwardly-projecting shoulder l. In its operative position, as shown in full line in Fig. 1, the edge of the lid L projects beyond the periphery of the collar R and is supported by the hinge B and rests E, projecting from the upper surface of the collar R, whereby a narrow aperture J is left, which is uniform in width between the lower side of the lid L and the upper surface of the collar R. These rests

and hinge are made adjustable, so that the size of the aperture J may be varied as desired. For this purpose each of the rests E is provided with a slot e, through which passes a screw e', which engages the screw-threaded hole or holes in the collar R, or preferably in an upright E' applied thereto.

The lower leaf b of the hinge B is provided with a slot b'. A clip b² surrounds the lower leaf of the hinge, and a screw b³, provided with a washer b⁴, projects through the clip b² and the slot b' and engages with the collar R or with a supporting-piece b⁵, provided with holes for the reception of the screw b³, which piece b⁵ is attached to the collar R, as seen in Figs. 2 and 7. The clip has side flanges which abut against the side edges of the lower leaf b of the hinge, as well as against the side edges of the supporting-strip b⁵, fixed to the collar R, and serves to guide and hold the hinge in an upright position.

To the under side of the lid L is attached, by means of a screw m, the bolt m', the lower end of which, M, is screw-threaded. A nut M' holds the inverted concave plate G on this bolt. The plate G is smaller in diameter than the throat of the chimney C, leaving a clear space S between the edge of the plate and the inner surface of the chimney.

A handle O is attached to the lid L and is used to raise the lid and plate G into the position shown in dotted lines in Fig. 1 and to return it to the position shown in Fig. 2. This allows free access to the mouth of the chimney and facilitates the ignition of the mixed air and gas and the primary heating of the mantle after combustion has started.

When the mantle has become thoroughly heated, the lid L and plate G are lowered into the position shown in Fig. 2, thus partially closing the throat of the chimney and allowing only so much of the gases to escape as can pass through the aperture J, which is much smaller in area than the throat of the chimney. As a result the velocity of the ascending gases is diminished and more time is allowed for the completion of the combustion within the chimney. This effect is uninterruptedly produced as long as combustion is maintained and the device remains in position. By thus retarding the escape of the heated gases the burning gases are more in-

timately and for a longer time kept in contact with the substance to be heated, combustion is more complete, greater efficiency of fuel is attained, and consequently less gas
5 is required to obtain a certain amount of heat and light.

In Fig. 7 is shown a modification B' of the hinge. This hinge B' is the ordinary stop-hinge, and the extensions B² prevent the lid
10 L from falling too far. In other words, they hold the lid L parallel with the collar R, thus doing away with the necessity of the rests E.

Having thus described my invention, what I claim, and desire to secure by Letters Patent
15 of the United States, is—

1. In an attachment for chimneys, the combination with a flanged collar fitting and resting upon the top of the chimney; a clip upon
20 said collar and a clamping-screw mounted in said clip; of a circular plate surmounting said collar; an inverted concave disk carried beneath said plate; a hinge having one leaf rigidly fixed to said circular plate and having its other leaf engaging in the clip on said

collar and retained by said clamping-screw; 25 and means for supporting said plate in a horizontal position, substantially as described.

2. In an attachment for chimneys, the combination with a flanged collar fitting and resting upon the top of the chimney; a clip upon
30 said collar and a clamping-screw mounted in said clip; of a circular plate surmounting said collar; an inverted concave disk carried beneath said plate; a hinge having one leaf
35 rigidly fixed to said circular plate and having its other leaf engaging in the clip on said collar and retained by said clamping-screw; and vertically-adjustable stops for maintaining the said plate in a plane parallel to the
40 plane of the said collar, substantially as described.

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

ROBERT W. WALMSLEY.

Witnesses:

ANDREAS SCHLOSSER,
J. P. BALDWIN.