

(No Model.)

J. W. BRAGGER.  
BICYCLE LAMP.

No. 547,200.

Patented Oct. 1, 1895.

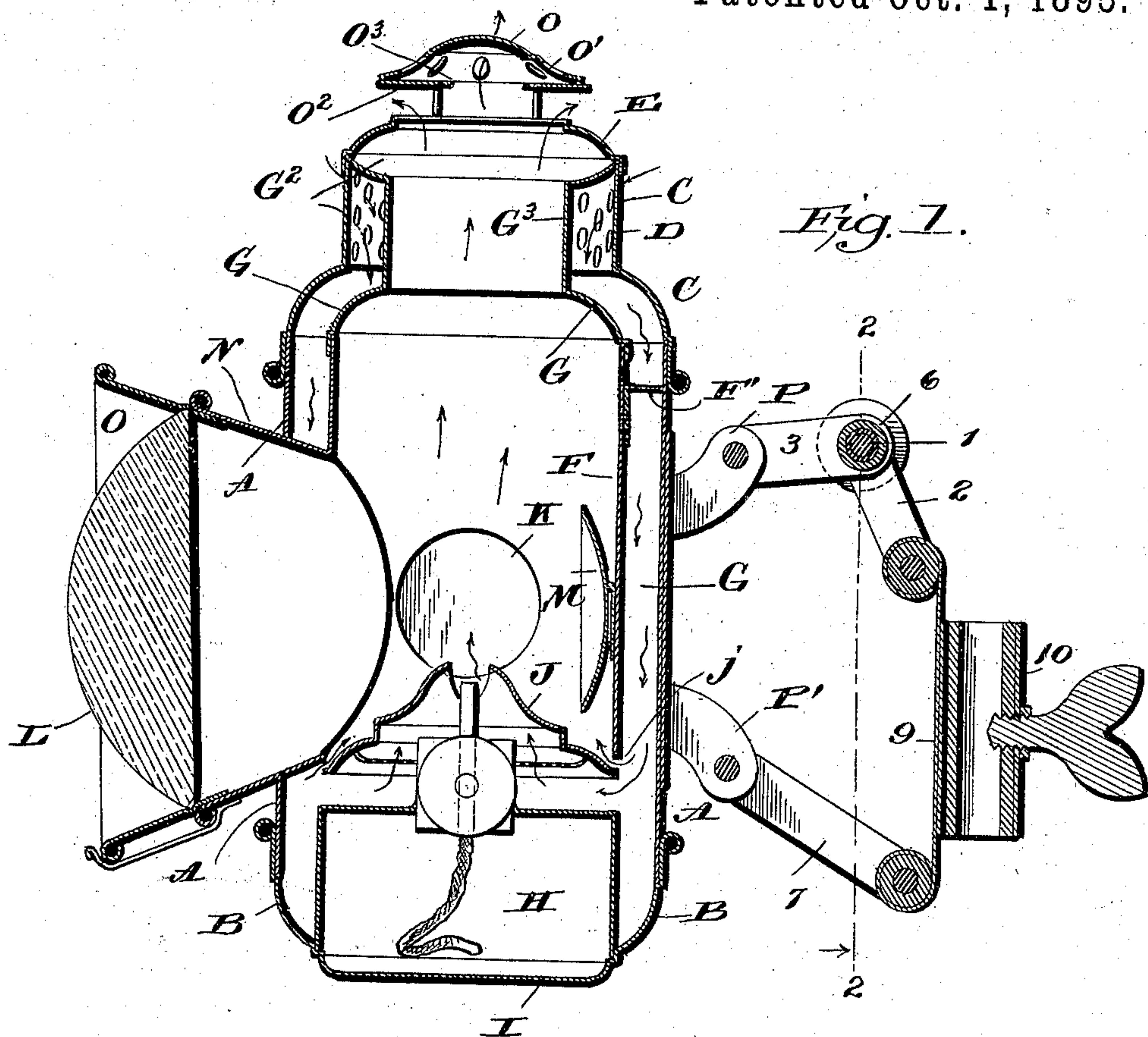
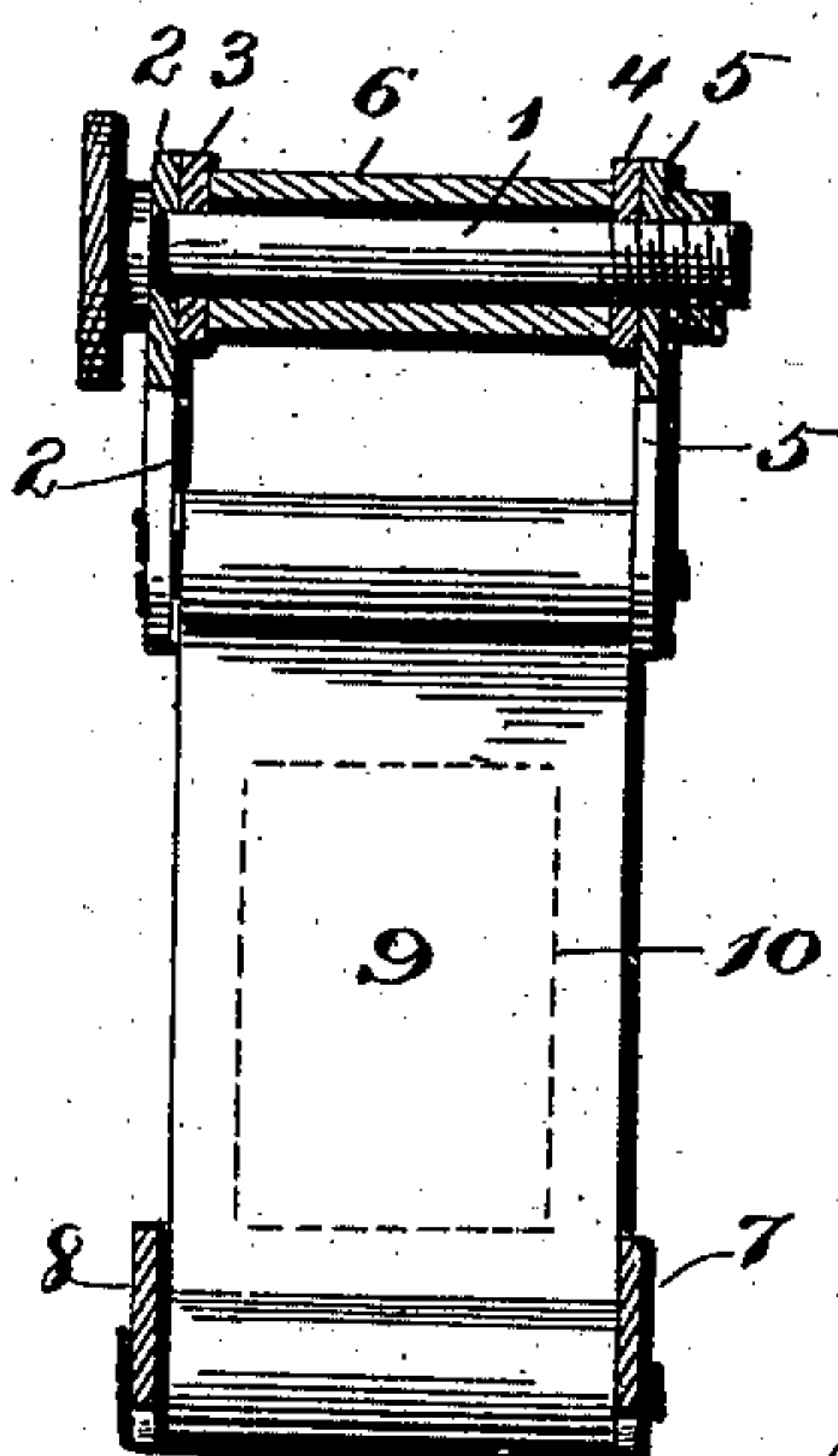


Fig. 2.



Witnesses:  
L. C. Hills.  
A. L. Hough

*Inventor;*  
John W. Braggen,  
by Franklin H. Hong  
att'y.



# UNITED STATES PATENT OFFICE.

JOHN WILLIAM BRAGGER, OF WATERTOWN, NEW YORK, ASSIGNOR TO  
THE HITCHCOCK LAMP COMPANY, OF SAME PLACE.

## BICYCLE-LAMP.

SPECIFICATION forming part of Letters Patent No. 547,200, dated October 1, 1895.

Application filed April 22, 1895. Serial No. 546,706. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN WILLIAM BRAGGER, a citizen of the United States, residing at Watertown, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Bicycle-Lamps; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in lamps or lanterns, and it has particular reference to that class of lamps which are employed upon bicycles and for signaling purposes.

The invention has for its object the provision of a lamp of the character described, which may be cheaply constructed, and which will be adapted to meet all of the requirements of a lamp of this character, the same being free from liability to flicker or smoke and not liable to be extinguished by high winds and sudden jars.

To these ends and to such others as the invention may pertain the same consists in the peculiar construction and in the novel combination, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the accompanying drawings, and then specifically defined in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters and figures of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a central vertical section through a bicycle-lamp constructed in accordance with my invention, and Fig. 2 is a section upon the line 2 2 of Fig. 1.

Reference now being had to the details of the drawings by letters and figures, A designates the outer case of the lamp, which is made of brass or other metal adapted to the purpose, the lower end of said case A being fitted within the bottom B, while its upper end is in a like manner fitted into the top portion C.

D is a perforated cylinder, which may be formed integral with the portion C or may

be separate and attached to the lamp in any suitable manner.

E is a cap fitting onto the cylinder D, said cap having an opening at its top to allow the products of combustion to escape.

O is a cap convex in form and provided with perforations O' and having a bottom plate O<sup>2</sup>, having a central opening O<sup>3</sup>, which opening allows the heated air from the lamp to escape, and also causes a more perfect draft, as will hereinafter appear, it also serving to protect the lamp from downward drafts to which it might be subjected when in use.

F is an inner cylinder or tube, which is held in place by securing-strips F', by which it is attached to the outer case A, allowing a space G to intervene between the outer and inner cases, as shown. This inner case F is also riveted or otherwise secured to the cases or tubes holding the side lights and the lens. The upper end of this inner case or cylinder F is fitted into the lower end of the cap portion G, which from its lower outer edges is curved inward, as shown, thence extending upward parallel to the vertical walls of the perforated outer cylinder D, and maintaining between the said perforated outer cylinder and the inner cylindrical portion G<sup>3</sup> of the inner cap G a space equal in width to the space between the inner and outer portions of the body of the lamp.

H is the oil chamber or tank, which is secured to the bottom, said lamp being provided with the usual wick-tube and means for raising and lowering the wick, as desired.

J is a plate which serves to deflect the draft up and around and into contact with the flame, excepting such portion as may enter the space j, which ascends outside of the plate J and produces a more perfect flame.

K represents one of the side lights, and L the lens for concentrating the light, and M is the reflector, which is of the usual concave form and is secured in any suitable manner within the lantern in alignment with the lens and also of the blaze.

N is a hood to the upper edge of the flaring or enlarged outer end of which is hinged the frame O, within which is secured the lens L, a suitable spring-actuated latch at the lower edge of the said frame serving as a means for



securing the frame in place when the lens is in place for use, it being understood that by releasing the catch and throwing the lens and its frame upward access is had through the hood N to the interior of the lamp for lighting the lamp or for cleaning or other purposes.

10 is the ordinary form of socket which is employed in attaching the lamp to a bicycle. It is riveted or otherwise secured to the part 11, which is a thin strip of spring metal, having its ends provided with loops or eyes by which it is hinged to the end of the link 2 at its upper end and at its lower end to the link 7, which latter link is hinged at its opposite end to the end of a fixed arm or bracket P', attached to the rear face of the lantern, while the link 2 is connected to a similar fixed bracket or arm P upon the lantern by means of a link 3, hinged at its ends to the said link 2 and bracket P, respectively, as shown.

Reference being had to Fig. 2 of the drawings, the details of the construction of the parts last referred to will be clearly understood, and it will be seen that I provide a toggle-joint with thumb-nut, screw, and sleeve so arranged and operating as to serve to tilt the lantern and hold it at different angles. A bolt is passed through the four parts of the adjusting device 2, 3, 4, and 5, being screw-threaded to receive the bolt 1, said bolt passing loosely through parts 2, 3, and 4. A bushing or collar 6 is inserted between the parts 3 and 4 and around bolt 1. It will be readily seen that by unscrewing the bolt 1 the parts will be loosened and that they may be readily set at any required angle. By simply tightening the bolt the parts will be securely held at any desired point of adjustment. The arms 3 and 5 being rigidly held to the bracket-arms P, and a second bracket P' holding loosely arms 7 and 8, the arms 2, 5, 7, and 8 are loosely connected and held by a spring 9, rigid to which is fastened the securing-clamp 10.

From the foregoing description the operation and advantages of my lamp will be readily understood. It will be seen that a continuous current of heated air will be maintained

upward through the outlet-openings at the top of the lamp, thus causing a uniform inward current of air through the inlet-perforations D, the said entering current passing downward within the air-space between the inner and outer cases or cylinders of the lamp and thence over the oil tank or chamber to the burner. This incoming air-current becomes slightly heated in its passage, and in passing over the oil-tank it imparts thereto a sufficient degree of heat to keep the oil in a condition which insures perfect combustion when it enters the burner.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

1. In combination in a lantern, an inner and an outer casing A and F respectively, with an intervening space G, the cap G fitted over the upper end of said outer casing and provided with a series of apertures, a cap G<sup>s</sup> fitted over the top of said inner casing, and having an outwardly flaring flanged portion which is connected to the upper end of cap C, a base portion carrying a burner having a plate J whose outer circumference is disposed beneath the lower edge of the said inner casing, a slight space intervening between the two, substantially as shown and for the purpose set forth.

2. In combination with a lantern the brackets P and P', the arms 7 and 8 pivoted to the brackets P', the spring 9 carrying a clamp 10, and pivoted to the arms 7 and 8, of the toggle links 3 and 4 each connected at an end to a bracket P, and the links 2 and 5 pivoted to the spring 9, of the adjusting thumbscrew 1, hollow cylinder 6 adapted to hold the adjacent ends of the said links, and allow of a tilting of the said lantern, all substantially as shown and described.

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

JOHN WILLIAM BRAGGER.

Witnesses:

C. H. WATTS,

GEORGE A. SAWYER.