(No Model.) 2 Sheets—Sheet 1.

W. S. HAMM.

BICYCLE LAMP OR LANTERN.

No. 584,284. Patented June 8, 1897.

Fig. 2.

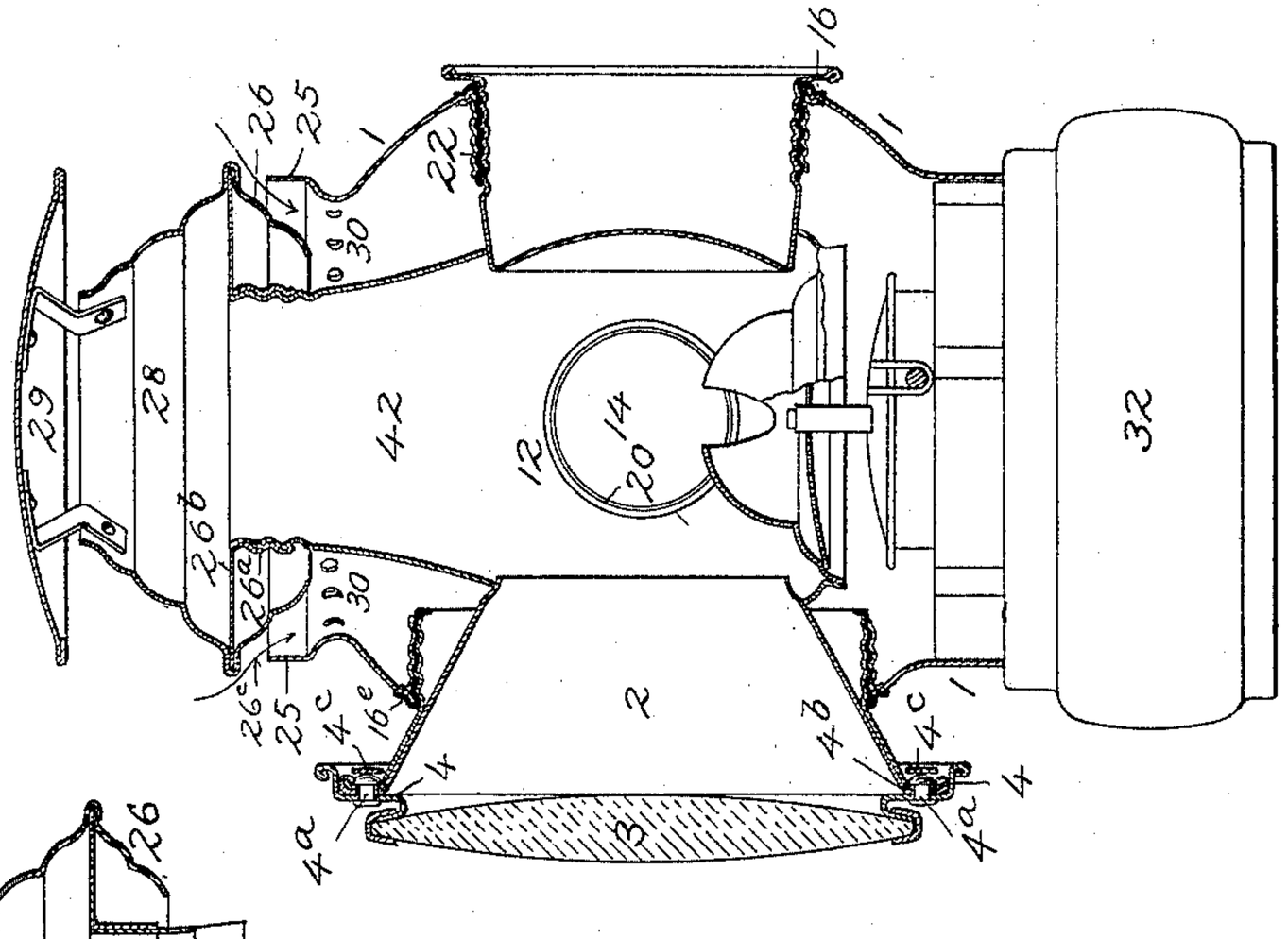

Fig. 10

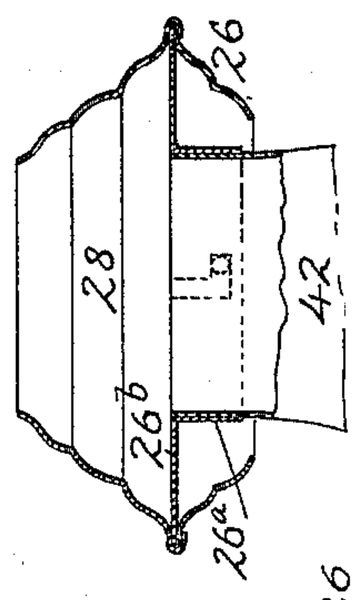

Fig. 1.

Witnesses.

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Sidney P. Hollingsworth

Inventor;

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by Geo. W. T. Hamm

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

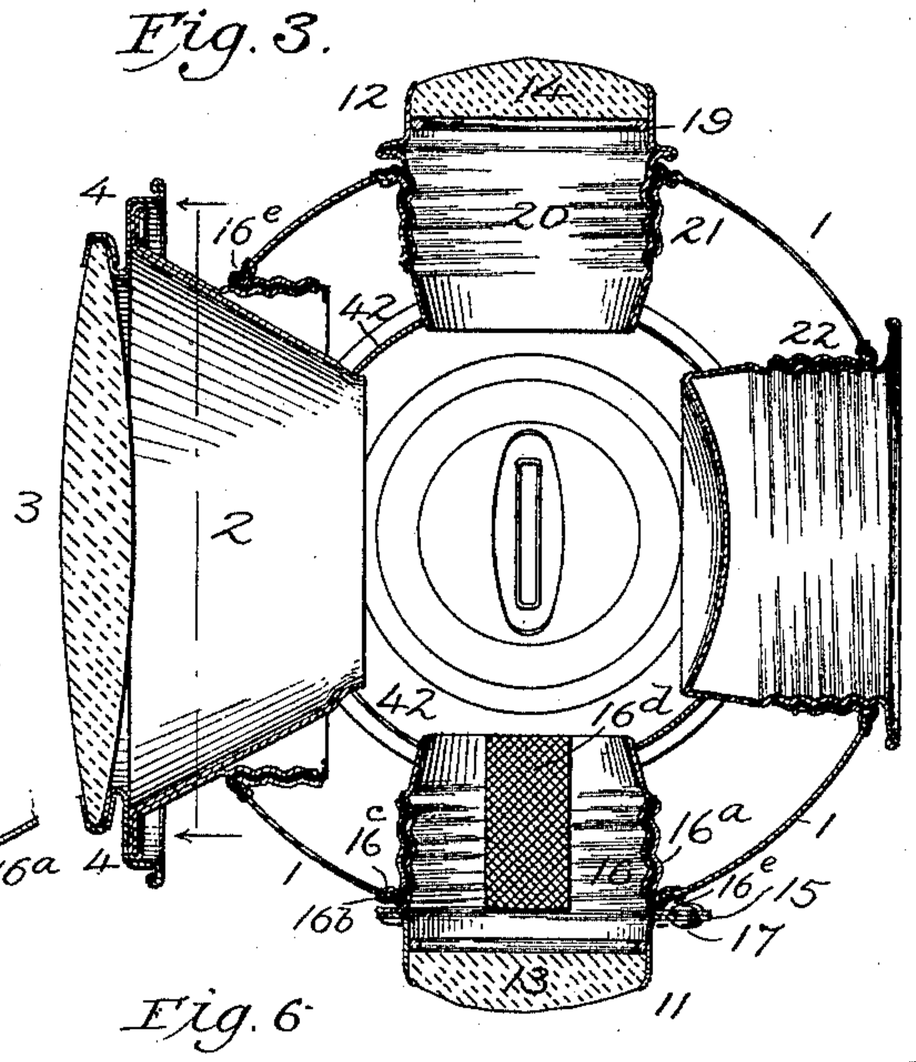
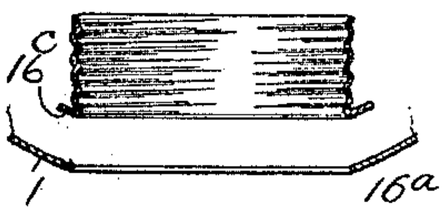


Fig. 4.



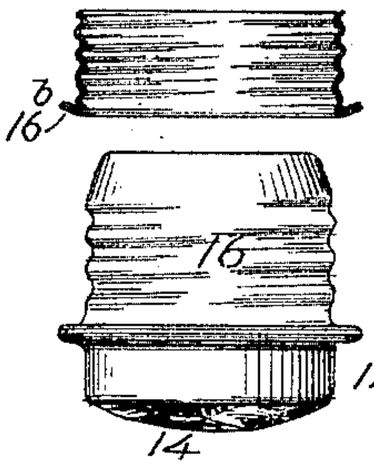


Fig. 5.

Fig. 6

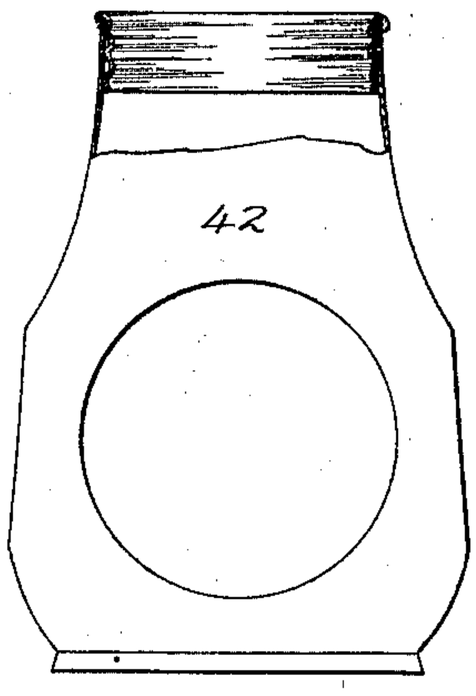


Fig. 9.

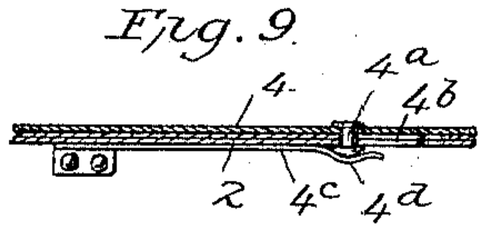


Fig. 7

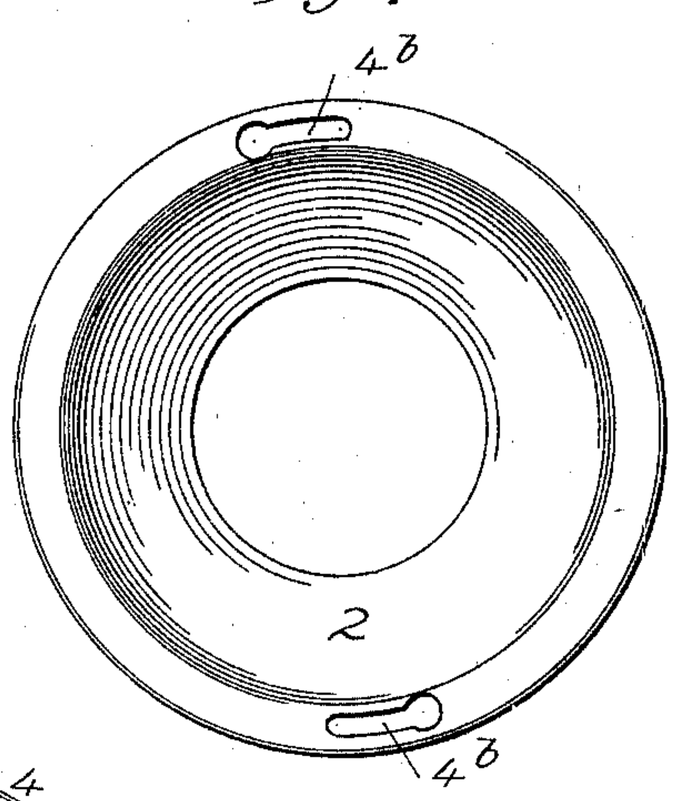
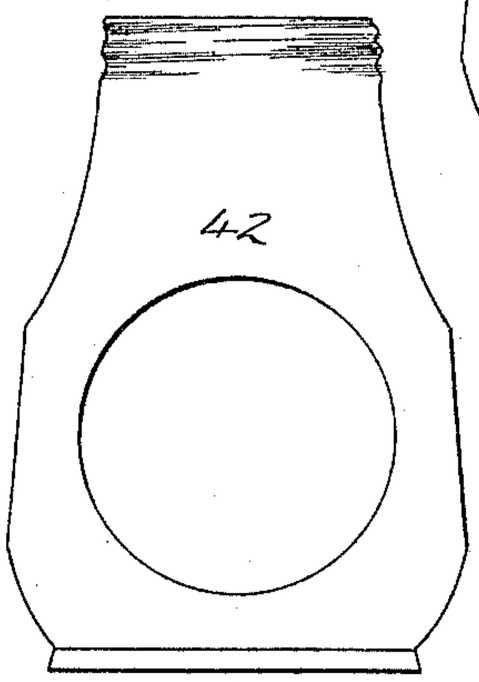
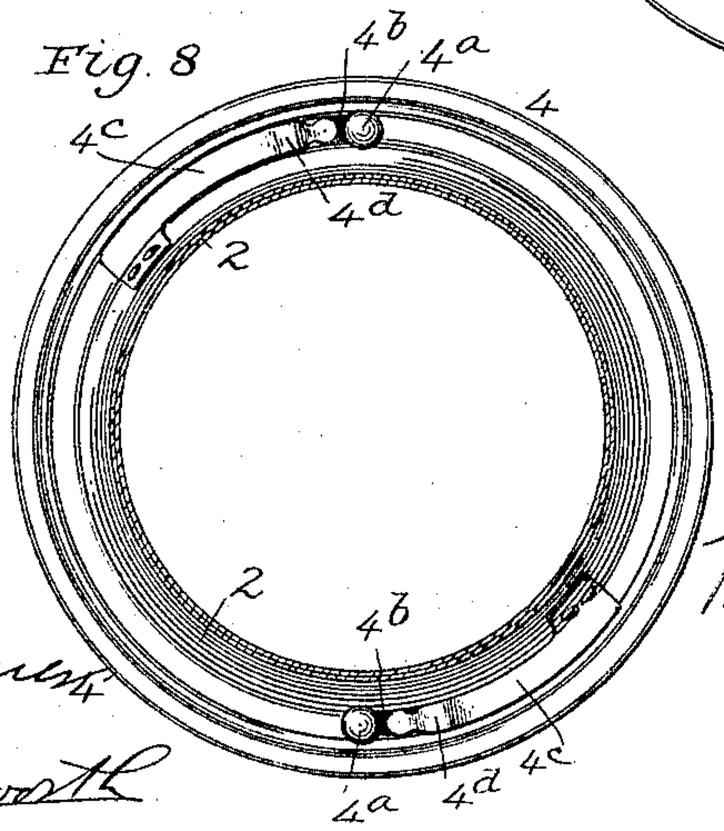


Fig. 8.



Witnesses,
Arthur Garner
Sidney P. Hollingsworth

Fig. 8



Inventor;
William S. Hamm,
by Geo. W. T. Howard
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM S. HAMM, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE ADAMS & WESTLAKE COMPANY, OF ILLINOIS.

BICYCLE LAMP OR LANTERN.

SPECIFICATION forming part of Letters Patent No. 584,284, dated June 8, 1897.

Application filed August 19, 1896. Serial No. 603,258. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. HAMM, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bicycle Lamps or Lanterns, of which the following is a specification, reference being had to the accompanying drawings and to the numerals marked thereon.

This invention has especial reference to a lamp or lantern for use with a vehicle of the bicycle class and is an improvement upon the construction set forth in Letters Patent No. 564,882, dated July 28, 1896.

My present invention has for its object improvements in the lamp described in said Letters Patent, chiefly in means whereby the air necessary to support combustion is effectively and in varying volume admitted to the burner, thus producing a steady flame; whereby the upper part of the lamp or lantern, or, more specifically, the wind cone or deflector, is made detachable to facilitate cleaning; whereby the use of solder, heretofore employed for attaching together various parts of the structure, is rendered unnecessary; whereby a convenient mode of striking a match is produced, and to other details of construction herein described tending to the general improvement of lamps or lanterns of this class.

In the accompanying drawings, Figure 1 is an exterior view of a lamp or lantern embodying my invention. Fig. 2 is a vertical section thereof. Fig. 3 is a horizontal section on the line $x\,x$ of Fig. 1. Figs. 4 to 9, inclusive, represent detached details. Fig. 10 shows a modification.

Similar numerals of reference indicate similar parts in the respective figures.

1 is the outer case of the lamp, which, as here shown, is in the main spherical in form, although it may be otherwise shaped. At the front of the outer case 1 and removably secured thereto by means of a threaded connection, hereinafter described, is the outwardly-flaring tube or support 2, the interior surface of which is highly burnished. The ring 4, supporting or framing the front lens 3, is provided (see Figs. 8 and 9) with pins 4^a, by means of which and the slots 4^b, Fig. 7, cut in the outer flange of the tube or support 2, the ring 4 is detachably fastened to said tube or support. One end of each slot 4^b is enlarged (the enlargement being at opposite ends of the slots) to permit the heads of the pins to pass through, while the width of the slots is about equal to the diameter of the necks of the pins. Behind each slot is a free-ended plate-spring 4^c, having a bend or depression 4^d, which springs, when the ring 4 has been pushed over the pins and the ring has been given a short rotative movement, catch over the heads of the pins, thus securing the ring in place.

At each side of the outer case 1 and preferably in the central horizontal plane of the lamp are the side signals 11 and 12, consisting of colored glasses or jewels 13 and 14. The glass 13 is mounted in an annular frame 15, hinged to a tapering thimble 16, provided with a threaded portion, the threads being preferably spun upon the body of the thimble, as shown. Secured to the outer case is a double-threaded socket 16^a, the inner shell of which is provided with a flange 16^b, while the outer part or shell of said socket is furnished with a similar flange 16^c. (See Fig. 4.) When the two parts or shells of the socket are in place, the flange 16^b fits against the outer part of the case, while the flange 16^c fits against the inner part thereof, the two parts or shells of the threaded socket being screwed upon each other and secured to the case and each other by the threads and by indentations 16^e, made in the flanges 16^b and 16^c and outer casing 1 by means of a punch or similar tool. This double-threaded socket 16^a, it will be seen, furnishes a strong and rigid support for the thimble 16 when screwed thereinto and dispenses with the use of solder, which in lamps of this class is found to be objectionable. The exterior of the thimble 16 projects slightly beyond the outer surface of the case 1 in such wise that the framed glass or jewel 13 may be swung or turned upon its hinge 17, so as to permit the insertion of a lighted match. Within the thimble 16 is a match-striker 16^d, having a roughened face, the act of rubbing or pushing the end of the match over or upon said surface caus-

… ed from … al-glass 14 is mounted in … ble 20, attached to which is a tapering … having a threaded portion formed thereon which screws into a threaded neck or ring 21, formed of two parts or shells fitted together and additionally secured by indentations, as hereinabove described with reference to the support of the signal-glass at the opposite side of the lamp.

The rear portion of the outer case 1 is cut away and the interior of the opening provided with a double-threaded support 22 substantially of the construction and having the mode of attachment described with reference to the supports for the thimbles of the side signals. The socket for the flaring tube or support 2, carrying the front lens, is also of similar character and has the same mode of attachment.

The general construction of the lantern with respect to the … tallic chimney 42, … front lens, reflec… and … the out… lam… oil-pot …

… perior deflector … is secured a cap 29. At the … flector 26 is a thre… 25 are, … connected to the inner circumference … cone or deflector by means of a horizontal imperforate plate or diaphragm 26^b. (See particularly Fig. 2.) The upper end of the metallic chimney 42, Fig. 5, is provided with a thread, preferably spun thereon, upon which, when said chimney is in place and secured substantially as described in my said patent, No. 564,882, the threaded cylinder screws; and it will be seen that the wind cone or deflector 26 may be adjusted upon the threaded end of the chimney so as to vary the area of the annular space 26^c, through which air … as indicated by the arrows in … providing for variation … air suppl…

tion is to avail of the advantages and conveniences described as attending the use of the structure claimed in my said former patent as well as to render the lamp or lantern more effective and convenient in manufacture and use.

Having described my invention, I claim—

1. In a lamp or lantern of the character described, the combination of an outer case having openings, a removable front lens, removable side glasses, a removable rear reflector, and double, threaded flanged sockets screwed upon each other and secured to the openings in the outer case by the flanges and the indentations 16^e formed in the said flanges and outer case, the supports for the front lens, the side glasses and the reflector being detachably screwed in said sockets, substantially as set forth.

2. In a lamp or lantern of the character described, the combination of an outer case, an independent and removable chimney and a wind cone or deflector removably mounted thereon, said cone or deflector having an annular plate or diaphragm within it for directing air from above the flame down the space between the outer case and the chimney to the flame, substantially as set forth.

3. In a lamp or lantern of the character described, the combination of an outer case, an independent and removable chimney and a wind cone or deflector, adapted to be moved or adjusted vertically upon the upper part of said chimney, having an annular plate or diaphragm for directing air from above the flame down the space between the outer case and the chimney to the flame, substantially as set forth.

In testimony whereof I have hereunto set my hand and affixed my seal this 20th day of July, 1896.

WILLIAM S. HAMM. [L. S.]

Witnesses:
HENRY O. MILLER,
LOUIS A. GRAY.