(No Model.)

J. M. HERMAN.

VELOCIPEDE LAMP.

No. 578,564. Patented Mar. 9, 1897.

Fig. 3.

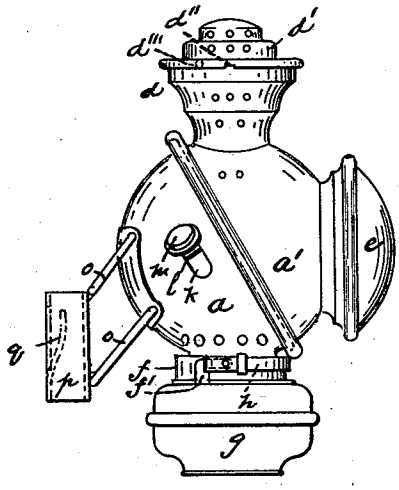

Fig. 1.

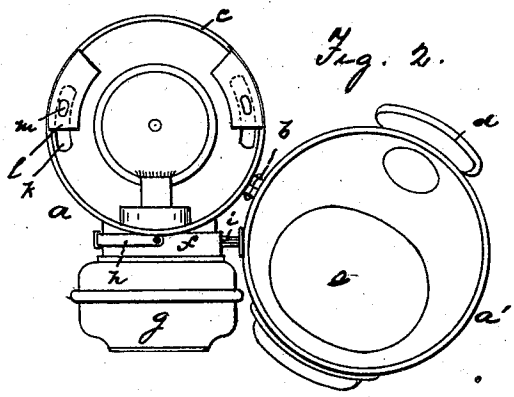

Fig. 2.

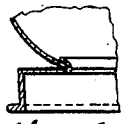

Fig. 6

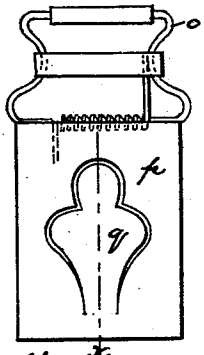

Fig. 4.

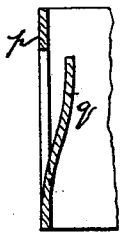

Fig. 5.

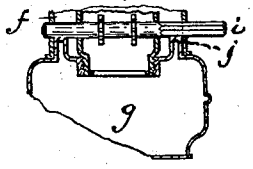

Fig. 8.

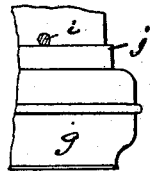

Fig. 7.

WITNESSES:
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C. F. Sitney.

John M. Herman, INVENTOR.
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ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN M. HERMAN, OF NEWARK, NEW JERSEY.

VELOCIPEDE-LAMP.

SPECIFICATION forming part of Letters Patent No. 578,564, dated March 9, 1897.

Application filed July 6, 1896. Serial No. 598,066. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. HERMAN, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Velocipede-Lamps; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The objects of this invention are to facilitate the work of cleaning the lamp and to enable the work to be done more thoroughly and conveniently, to reduce the cost of construction, to provide a more compact and neat article for bicycle purposes, to prevent the wick from becoming lowered because of the jarring of the vehicle in riding, and to secure other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved lamp for bicycles, &c., and in the arrangements and combinations of parts thereof, all substantially as will be hereinafter set forth, and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several views, Figure 1 is a side elevation of the lamp. Fig. 2 is a front view, the shells or hinged sections being open. Fig. 3 is a detail sectional view of a removable top piece of a certain smoke-dome. Fig. 4 is a detail rear elevation of a device for attaching the lamp to the bicycle-bracket. Fig. 5 is a sectional view of a portion of the same, taken at line x. Fig. 6 is a detail in section showing the connection of one of the semispheres of the case to a certain lamp-holding collar thereof; and Figs. 7 and 8 are detail views of the oil well or burner, showing in section the wick-turning shaft.

In carrying out the invention I form a case for the lamp out of two hollow semispherical shells, pieces, or sections a a', which are hinged together at one side, as at b. The joint formed by the sections a a' is equatorial and extends diagonally or at an inclination to the vertical axis of the lamp, so that the forward section a', having the lens and dome, will swing upon the inclined hinge-pin of the rear section and gravitate downward, as indicated in Fig. 2, and thus remain open by gravity while the lamp is being lighted or cleaned. The rear section a has a burner or lamp g and attaching means o p, and remains fast to the bracket, so that there will be no danger of the oil being spilled when the lamp is opened. The said semispheres are of thin sheet metal, so that they present interiorly regularly concave surfaces devoid of seams tending to complicate and render the construction expensive. By inclining the joint as described the rear semisphere tends to protect the match from draft to some extent, so that the light is less liable to become extinguished, and yet when open the semispheres are free to admit of a convenient lighting operation. The concavo-convex sections also, because of their shape, are rigid and strong to resist the treatment brought to bear thereon and are thus more durable. Said semispherical pieces are adapted to be forced into fixed relation to one another, so as to remain closed together when in use, one of said cases being provided with a marginal bead or ridge c, adapted to be sprung into a corresponding groove or recess formed in the opposite semisphere.

To the semisphere a' is attached the dome d, which is suitably perforated to allow or admit exit of the smoke and other products of combustion from the lamp, and at the front of the said semisphere is arranged a lens e in any ordinary manner. The said dome d is provided with a removable top piece d', by means of which access to the interior of the dome for purposes of cleaning is readily and easily gained. To facilitate the work of attachment and removal, this top piece, which is round in plan, is provided with notches d'' and with turned margins forming an annular groove, into which lugs d''' are adapted to enter through said notches and hold the parts in fixed position, but any other suitable fastening means may be employed to so hold the said removable piece in place. To the other semisphere, a, in verti-

cal line with the dome, is arranged a collar *f*, adapted to receive the burner or lamp *g*, which collar *f* consists of an annular piece having at its upper edge a turned flange around the edge of a large perforation formed at the bottom of said semisphere, the turned edge holding the said collar firmly and rigidly to or upon the said semisphere. Above and around said collar said semisphere *a* is freely perforated to secure a proper inflow of atmospheric air to supply the flame with oxygen and maintain a proper combustion. Said collar *f* is provided with bayonet-joint slots *f'*, which coöperate with the wick-turning shaft of the burner *g* in holding the oil-well portion of the lamp within the said collar. To prevent detachment of the lamp from the said slotted collar, I provide a spring-catch *h*, which is provided with a perforation at its free end to receive the end of the said wick-turning shaft, so as to lock the same within the slot or prevent back turning and detachment, as will be understood upon reference to Fig. 1.

I may employ any other form or arrangement of lock without departing from the invention.

The lamp proper or burner, *g*, consists of an oil-well made preferably from sheet-metal in any ordinary manner and of a wick-receptacle having the usual wick-operating wheels and the wick-turning shaft *i* for turning the same, the said wick-turning shaft extending through the wick-receptacle and projecting out therefrom at opposite sides.

To prevent the wick from being lowered by the jarring of the bicycle when running, I have provided means to prevent such automatic action of the wick, which consists of a raised annular shoulder *j*, formed at the upper part of the oil-well around the mouth thereof, which is so disposed as to engage the wick-turning shaft *i*, when the wick-receptacle is secured down into the mouth of the oil-well in the ordinary manner. The said annular shoulder impinges upon the shaft and thus by friction prevents it from turning. I prefer to give the shaft an angular shape in cross-section, octagonal or otherwise, which serves to make the lock more positive and secure.

One of the semispheres is provided with slots *k* on opposite sides, which are adapted to be closed by slides *l* and open to admit of the insertion from the outside of a lighted match to the lamp-wick. Said slides are provided with finger-pieces *m* to facilitate the opening or closing operation of the slides. Said finger-pieces are transparent and preferably of glass and of the colored and faceted variety known as "jewels," which are of lens shape to radiate the light from the lamp.

The attachment of the lamp to the frame of the bicycle is similar in many respects to attachments commonly in use, *o* being links and *p* a socket to receive a tongue or bracket of the bicycle-frame. This attachment varies, however, from what is common, in that I provide the socket, at the rear thereof, with a spring-tongue *q*, integral with the metal plate forming the said socket. Said socket is made in box-like form, with open opposite ends, and with bearings for the links *o* at one side, and at the rear side the sheet metal is pressed inward, stamped by dies or other suitable means, so that an integral spring-tongue is formed, which extends into the box so as to engage the bracket as it passes through the passage of said box.

Having thus described the invention, what I claim as new is—

1. The improved lamp in which are combined two semispherical sections hinged together at one side, the joint being equatorial and extending diagonally with relation to the vertical axis of the case, the rear section having the burner and bracket connections and the other having the dome and lens substantially as set forth.

2. The improved lamp in which are combined two semicylindrical sections hinged together one of which is provided with a lens and dome and the other with a collar to receive the burner and bracket attachments, the meeting edges of said sections extending diagonally between the dome and bracket attachments, at one side of the lamp and lens and collar at the other side and forming an equatorial joint, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of July, 1896.

JOHN M. HERMAN.

Witnesses:
CHARLES H. PELL,
NATHAN WEINBERG.