(No Model.) 3 Sheets—Sheet 1.

J. C. TUDOR.

CYCLE LAMP AND SUPPORT.

No. 529,885. Patented Nov. 27, 1894.

Fig. 1.

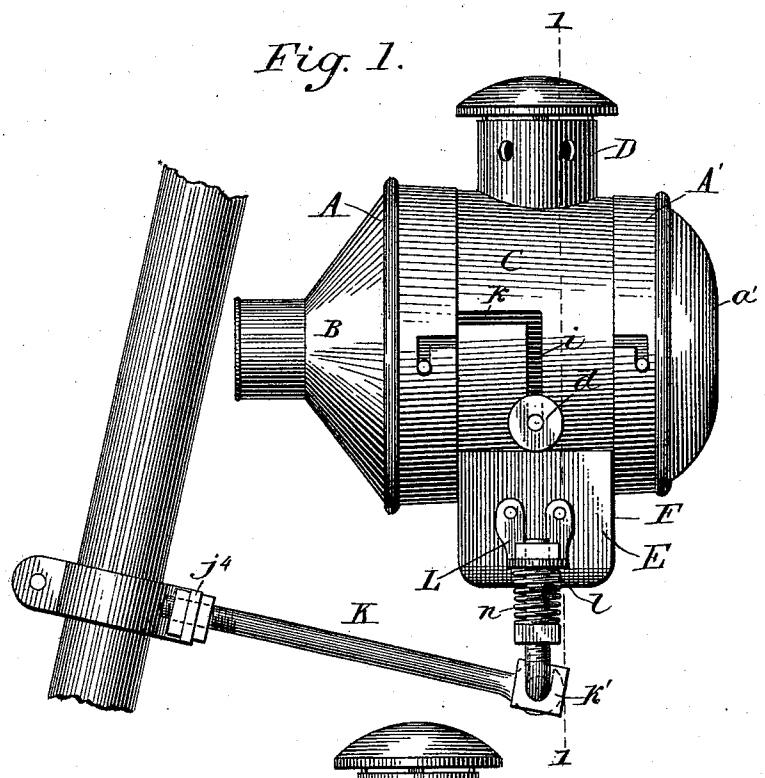


Fig. 2.

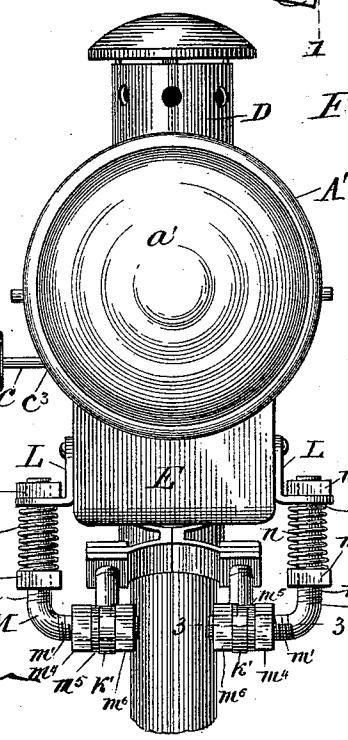


Fig. 7.

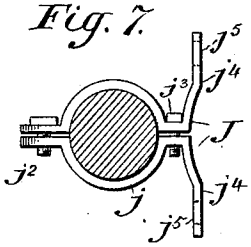
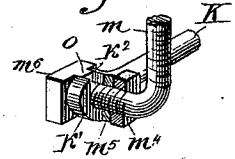


Fig. 8.



Witnesses.
Elmer Knatz
John T. Mercer

Inventor.
John C. Tudor

(No Model.)

3 Sheets—Sheet 2.

J. C. TUDOR.

CYCLE LAMP AND SUPPORT.

No. 529,885.

Patented Nov. 27, 1894.

Fig. 4.

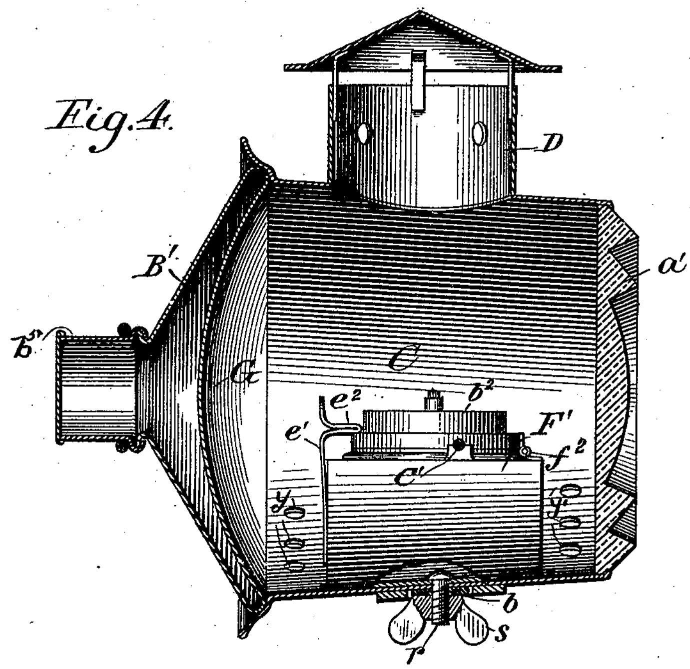
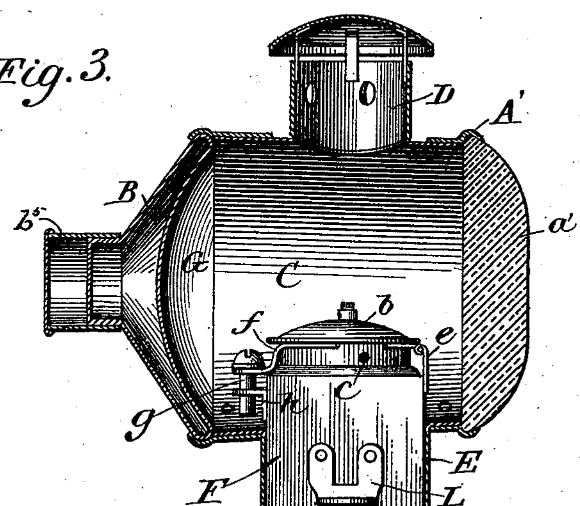


Fig. 3.



Witnesses

Inventor:

John C. Tudor

(No Model.) 3 Sheets—Sheet 3.

J. C. TUDOR.

CYCLE LAMP AND SUPPORT.

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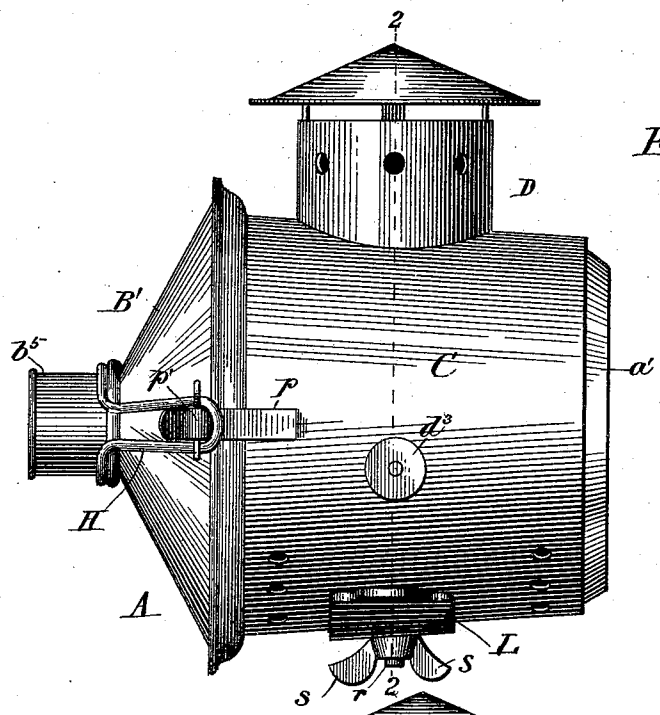

Fig. 5.

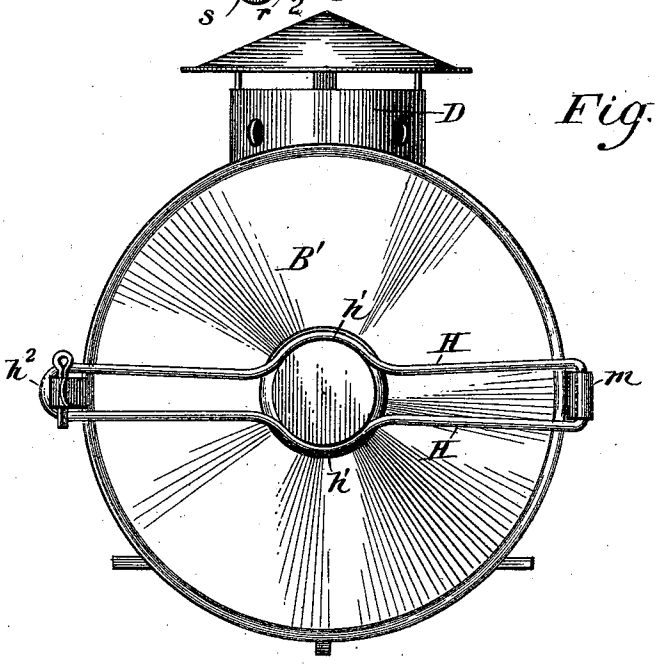

Fig. 6.

Witnesses:
Elmer Knatz
John T. Mercer

Inventor:
John C. Tudor

UNITED STATES PATENT OFFICE.

JOHN C. TUDOR, OF BALTIMORE, MARYLAND.

CYCLE-LAMP AND SUPPORT.

SPECIFICATION forming part of Letters Patent No. 529,885, dated November 27, 1894.

Application filed May 26, 1894. Serial No. 512,565. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. TUDOR, of Baltimore, in the State of Maryland, have invented new Improvements in Cycle-Lamps and Supporting Devices Therefor; and I do hereby declare the following when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in elevation of the lamp supported upon the steering head, which may be that of a safety bicycle or of a tricycle; Fig. 2, a similar front view of the lamp and supporting device. Fig. 3 is a vertical section on the line 1—1 of Fig. 1. Fig. 4 is an inside vertical view of a lamp cut in two on line 2—2 of Fig. 5. Fig. 5 is an elevational view of a modification of the lamp. Fig. 6 is a rear elevation of the lamp in Fig. 5 showing the locking mechanism. Fig. 7 is a detail or section of the clamp for securing the lamp support upon the steering head. Fig. 8 is a detail of the locking nut section on line 3—3 of Fig. 2.

The invention relates to improvements in cycle lamps and supporting devices therefor, the object being to produce a lamp of simple, compact, and cheap construction adapted to carry, in proportion to its size a large quantity of oil, and to be readily taken apart and cleaned.

A further object of the invention is to provide a simple supporting device which will securely support the lamp and cushion it against the vibration of the machine.

With these ends in view my invention consists in a cycle lamp and a supporting device therefor having certain details of construction and combination of parts as will be hereinafter described and pointed out in the claims.

Under my invention the lamp A shown in Fig. 1 is provided with a detachable front A′ containing a lens a' adapted to magnify the flame to a powerful extent, a detachable rear B, the central or body portion C and hood D and a pocket E made integral with the body C adapted to contain the oil cup F. Made integral with the rear B is a reflector G, preferably constructed of black lead, known to the trade as the "Acme Reflector." It will thus be seen that the parts are readily dissembled, which is a great advantage to those handling the same. The tank is provided with the usual burner b containing the laterally extending rod c with milled head d for adjusting the wick.

The lamp or tank and burner are securely supported within the body C by springs e and f, the spring e being secured to the pocket E and the spring f being secured and regulated by a screw g engaging a lug h secured to the pocket E. When it is desired to remove the oil cup, the screw g is loosened and the spring f thrown aside and the cup is raised bodily, the rod c riding in the vertical slot i and then drawn rearwardly through slot k, the union being of the well known bayonet joint form.

In the construction shown in modifications Figs. 4, 5, and 6 the lamp differs from the one just described in that the lens is of the "bull's eye" form, and is rigidly secured to the front, the lamp being opened from the rear only. One feature of this lamp is the simplicity with which the rear part, or more properly speaking, cover B′ can be removed and also secured. To accomplish this I provide a wire clamp H made of spring wire, and which consists of two arms bent parallel and their extreme ends abutting and securely held within an eye m exteriorly secured to the casing, or body C. To the opposite side of said casing is secured exteriorly a hasp p with a bowed part p'.

Centrally of the parallel arms or clamp H the wire is bowed, or bent in semi-circular form h', the concave part of said bowed center being oppositely arranged thereby presenting a yielding clamp adapted to receive and securely hold the ordinary hood, or cover b'. Thus it will be seen that the part or cover B′ may be entirely removed from the lamp or casing C, or swing thereon as a door. The end h^2 of the clamp H is adapted to engage the bowed or raised part p' of the hasp p and be securely held in contact therewith by a key being passed between the under side of the raised part p' and the clamp H against its end h^2.

The construction regarding the oil receptacle, the manner of securing and removing

the same from the casing C differs in Figs. 4 and 5 from that described in relation to Fig. 3. In this instance the oil cup J′ is semi-circular in form at the bottom thereof, and of the contour of the interior of said casing, said cup being provided with the usual burner b^2. Secured to the back of said cup is a leaf spring e' formed with an arm or bend e^2. When the cup is placed in position the arm e^2 engages the upper surface of the burner b^2 and securely holds said burner against vertical movement said burner being hinged to the cup F′ at f^2. At the bottom of the oil cup F′ is secured a screw threaded projection r, extending at right angles therefrom and adapted to receive a winged nut s. At the bottom of the casing C is an oblong slot L for the passage therethrough of said screw-threaded projection r. Projecting laterally from the burner is a rod c' provided with a removable milled head d^3 if preferred. Said rod c' serves the double purpose of operating the usual wick adjusting gear and also as a means of preventing the oil tank from lateral or rocking motion. When it is desired to remove the cup for the purpose of supplying oil, the milled head d^3 and nut s are removed from the rod c' and projection r respectively, and said cup is given a lateral swing or turn in a direction opposite from the rod c', causing projection r to travel in slot and rod c' to clear the opening c^3 in the side of the casing or body C. $y\ y'$ are openings for supplying air to the burner.

In order that the jar to the lamp caused by the vibration of the machine may be reduced to a minimum, and that the lamp A may be readily and quickly adjusted in position to lengthen or shorten the range of the light, and also to prevent the lamp from violent motion or turning over in case of the machine striking an obstruction or coming to a sudden stop, I have devised a novel device consisting of a clamp, cushioning springs, and lock nut which I will now proceed to describe.

J represents a clamp constructed of two jaws secured together by two threaded bolts. This clamp differs from the usual clamp of this class in that the jaws are entirely divisible and adapted to accommodate any sized steering head. Extending laterally from each jaw is an arm j^4 containing an orifice j^5. Rods K screw-threaded at one end and provided with a flattened head k' at the other, serves as a means of supporting the lamp holder, the screw-threaded end of these rods being passed through the perforations j^5 and securely held thereat by nuts in the usual manner. Secured upon the exterior of either side of the oil tank pocket E or the casing or body C is a lug L, containing a perforation l.

M represents the supporting rods. These rods are made screw-threaded at each end and bent centrally so that the ends from arms m and m' extend at right angles. The arm m that assumes a vertical position when attached to a cycle is provided with a shoulder m^2 adapted to support a spiral spring n. When the parts are assembled the spiral spring n is slipped over the arm m. The threaded end of said arm m is then passed from the under side through the perforation l of the lug L. A nut m^3 is then screwed upon the end of arm m, the tension of spring n being regulated by the nut m^3. Upon the end of arm m' a nut m^4 is screwed, then a washer m^5 is slipped on and finally a lock nut m^6. Between the washer m^5 and lock nut m^6 is placed the flattened head k' of the rod K′. This flattened head k' is formed into a claw by a slot k^2 of sufficient width to admit snugly the arm m'. Upon the face of the nut m^6 is a lug o which engages the slot k^2 as shown in Fig. 8. When the parts are thus assembled and the lug o is in the slot k^2 the parts are then firmly clamped together by turning nut m^4 against washer m^5, driving said washer into engagement with head k'.

From the above it will readily be seen that when the rider desires to lengthen or shorten the range of his light, he has only to loosen nut m^4 adjust by hand the lamp to the proper angle and then by a simple turn tighten nut m^4 back into engagement with the washer m^5 and claw head k'.

It will be apparent from the foregoing that in carrying out my invention some changes from the exact forms herein shown and described may be made. I would therefore have it understood that I do not limit myself to such forms, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. A cycle lamp of cylindrical form, an oil cup shaped to the contour of the interior of said lamp, a burner hinged to said cup and means consisting of a bolt, or threaded rod projecting at right angles from the bottom of said cup, and a lateral arm or bar projecting from said burner and extending through the casing of said lamp for securely holding said cup in position substantially as described.

2. The combination with a cycle lamp of a supporting device, comprising a clamp adapted to engage the steering head of a cycle, rods or arms projecting oppositely from said clamp perforations j^5 in said arms, rods K projecting from said arms and secured thereto through said perforations, a flattened claw-shaped head k' on the opposite end of said rod, angle shaped rods M adapted to support upon one end a spiral spring for directly supporting the lamp, and upon the other end screw-threaded to receive nuts, and the claw head k' whereby when the nuts are screwed toward each other the head is clamped therebetween and the lamp rigidly secured substantially as described.

3. The combination with a cycle lamp, a supporting device therefor consisting of oppositely arranged angle-rods, adapted to pro-

ject upon either side of said lamp, spiral springs placed thereon adapted to receive and cushion the lamp, the lower end of said rods being screw-threaded, a nut m^4 and a washer m^5 placed thereon, a bar K with a claw k' containing a slot k^2 adapted to receive said threaded rod and a nut m^6 provided with a lug o screwed upon the exterior end of said threaded rod whereby when the nuts are screwed toward each other, the lug o engages the slot k^2 in the flattened head k' thereby locking said parts, a clamp consisting of two semi-circular jaws adapted to embrace a steering head of a cycle and supporting at right angles therefrom the rod or bar K, whereby the lamp may be adjusted to different angles and rigidly locked thereat, substantially as described.

JOHN C. TUDOR.

Witnesses:
ELMER KNATZ,
JOHN F. MERCER.