

W. FRENCH.
LAMP.

APPLICATION FILED JAN. 21, 1909.

960,632.

Patented June 7, 1910.

2 SHEETS—SHEET 1.

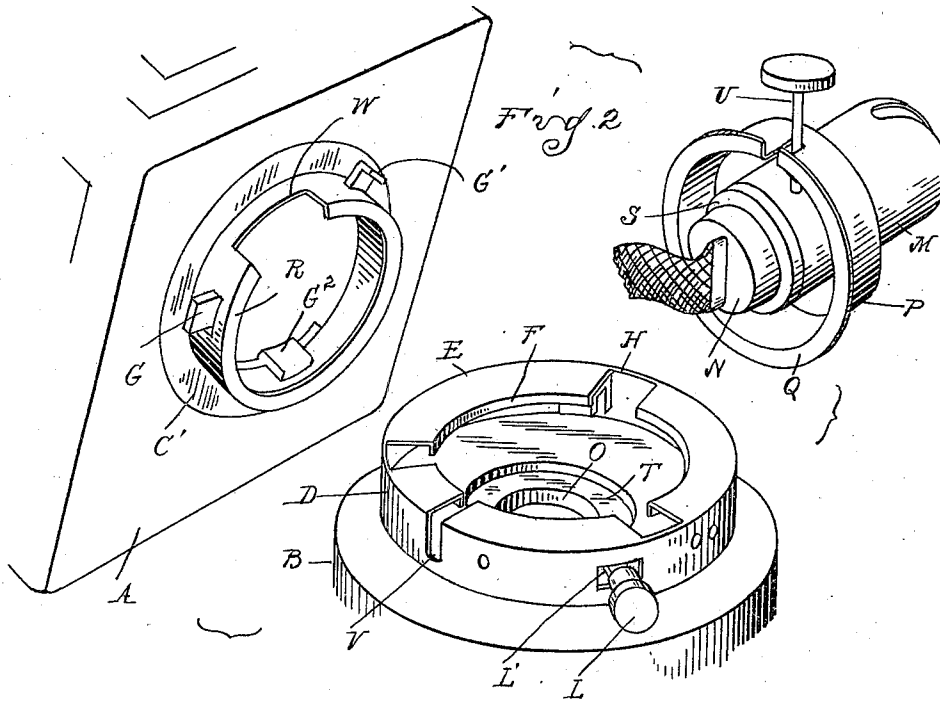
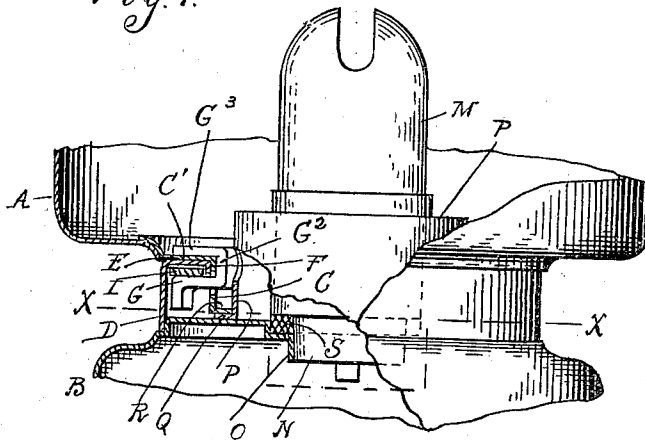


Fig. 1.



Witnesses.

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2 SHEETS—SHEET 2.

Fig. 3.

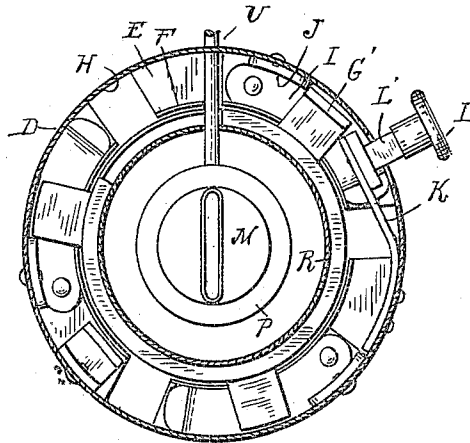


Fig. 4.

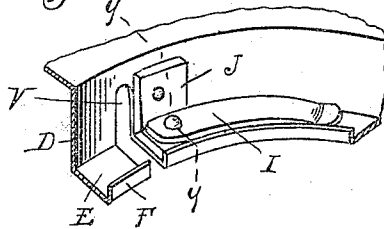
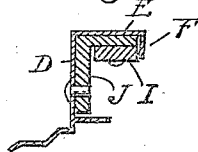


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

WARREN FRENCH, OF DETROIT, MICHIGAN, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
C. M. HALL LAMP COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

LAMP.

960,632.

Specification of Letters Patent.

Patented June 7, 1910.

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To all whom it may concern:

Be it known that I, WARREN FRENCH, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Lamps, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to lamps more particularly designed for use on automobiles, and other vehicles, and the invention consists in certain features of construction—first, in the means employed for attaching the font to the lantern; further, in the means for securing the burner to the font; and, further, in the peculiar construction, arrangement and combination of parts as hereinafter set forth.

In the drawings—Figure 1 is a vertical central section, partly in elevation, through a portion of the lamp, illustrating the connection between the font and lantern; Fig. 2 is a perspective view of the font, burner, and lantern detached from each other; Fig. 3 is a bottom sectional plan view, the section being substantially upon line $x-x$, Fig. 1; Fig. 4 is a perspective view of a portion of the font section inverted and showing the spring clamps; and, Fig. 5 is a section on line $y-y$, Fig. 4.

A is the lantern section and B the font section of a lamp of any suitable construction, except as hereinafter set forth. It is usual in the construction of lamps of the class to which my invention belongs to support the lantern section and to suspend the font section therefrom by a detachable engagement therewith. It is, however, necessary that the font should be securely locked in its engagement as otherwise the constant vibration occurring when the vehicle is in motion is likely to cause the shaking loose of the parts. Such a locking engagement I have provided as follows: C and D are annular flanges respectively upon the lantern and font sections which have a telescopic engagement with each other. One of the flanges, such as D, is provided with a laterally-extending portion E which terminates in a flange F fitting about the flange C. The flange C is provided with a plurality of laterally-extending lugs G and the flange E is cut away at H for the entrance of said lugs beneath the plane of the flange E. In-

intermediate the apertures H are segments of the flange D adjacent to which are secured cam segments I. These are preferably attached to the flange D by angle plates J which are riveted to the inside of said flange and have one wing parallel to the flange E. The cams I are riveted to this wing and the flange F forms a retainer for the edge of the cam I and prevents accidental displacement thereof.

With the parts as above described, in operation the font may at any time be engaged or disengaged with the lantern section by telescopically engaging the flanges C and F while apertures H are in registration with the lugs G. By then rotating the font said lugs G will be caused to mount upon the cams I, which are slightly in angular relation to the plane of the flange E and which draw downward upon the lugs, seating the lantern upon the font.

To lock the parts in engagement a spring catch K is secured to the inner face of the flange D and extends into the path of the downwardly-projecting lug G' upon one of the lugs G. This catch is inclined to the orbit of the lug G' and is so arranged that in the engagement of the parts said lug will first contact with the side of the catch and deflect it laterally, but, after it has passed the catch, the latter will spring back into the path of the lug and prevent return movement thereof. The catch is disengaged by a button L secured to a shank L' extending through a slot in the flange D, and the angle members J, in addition to their function of securing the cams I, also form stops for the lugs G which limit their rotation.

It is usual to attach the burner to the font by a screw-threaded engagement. This causes the twisting of the wick in engaging and disengaging the burner, and, furthermore, it frequently happens that in engaging the burner the threads are not properly entered into engagement with each other and are injured or destroyed, in the attempt to screw the parts together. With my improved construction, I have avoided the use of a threaded engagement between the burner and font, and have substituted a plain socket, the burner being clamped to the font by the lantern section.

In detail, M is the burner, which is provided with a shank portion N, preferably slightly tapered longitudinally. O is a

flange socket formed on the font adapted to engage with said shank. P is an annular flange upon the burner M surrounding the shank N and terminating in a laterally-extending annular flange Q which is adapted to engage with a flange R at the lower end of the flange C. The arrangement is such that when the font is engaged with the lantern, the flange R will press downward against the flange Q and hold the shank N of the burner in engagement with the socket O. To form an oil tight joint a gasket S is preferably placed about the shank N, this gasket being seated in an annular recess T in the top of the font section. This gasket will be tightly clamped by the burner and font, the cams I producing the clamping pressure.

The wick of the burner is adjusted by the usual rotary stem U which engages a slot V in the flange D, while the flange C is cut away at W to provide clearance for said stem during the turning of the font.

In the manufacture of the construction, the flange C may be struck up from a separate blank of sheet metal than that forming the body portion of the lantern, and a laterally-extending portion C' is preferably formed integral with the flange C and constitutes the means of attachment between the same and the lantern. The lugs G may be secured by suitable means, but, as shown, these are formed integral with angular shanks G², which terminate in flanges G³ secured to the flange C' of the annular portion C.

The construction described is one in which the parts may be very quickly engaged and disengaged, and which when once engaged and locked are securely held from accidental displacement.

It will be observed that the apertured flange E is spaced from the font and that the cams I, with which the lugs G are engaged, are arranged upon the bottom side of this flange. This construction overcomes the defect in certain previous constructions—viz., the danger in cold weather of the collection of the condensation in the locking mechanism and the freezing thereof, so that the font cannot be disengaged. With the present construction, any condensation that may occur will collect in the space below the flange E and the cams and lugs so that the latter are always free for disengagement.

What I claim as my invention is:

1. In a lamp, the combination with a lantern section, and a font section telescopically engaging each other, of a plurality of radially-projecting lugs on the one section, a laterally-projecting flange on the other section having entrance apertures for engagement with said lugs, cams upon said flange with which said lugs may be engaged

by a rotative adjustment, a burner having a plain socket engagement with said font, and a bearing on said lantern section for engagement with said burner and yieldingly pressing the same to its seat.

2. In a lamp, a lantern section having a depending flange and a plurality of lugs projecting laterally therefrom, a font having an annular horizontal flange secured to and arranged thereabove, said flange being adapted to receive said depending flange and being apertured for the passage of said laterally-projecting lugs therethrough, and cams on the under side of said horizontal flange with which said lugs may be engaged by a rotary adjustment.

3. In a lamp, the combination with a lantern section and a font section having a telescopic engagement with each other, a laterally-extending flange upon one of said sections, a cam secured to the underside of the flange adapted to be engaged by the other of said sections upon a rotary movement for securing the lantern to the font and separate means for locking said sections in their secured position.

4. In a lamp, the combination with a font provided with an annular vertically-extending flange terminating in a laterally-projecting slotted portion, a burner having an imperforate portion adapted to seat upon said lateral projection and provided with a downwardly-projecting annular flange, and lugs on said last-mentioned flange adapted to register with said slots and having a locking engagement with the under side of said laterally-projecting flange.

5. In a lamp, the combination with a font provided with an annular vertically-extending flange terminating in an inwardly-projecting slotted portion, a burner having an imperforated portion adapted to seat upon said lateral projection and provided with a downwardly-projecting flange and lugs projecting outwardly from said last-mentioned flange positioned substantially midway of the top and bottom edges of the latter and adapted to register with said slots and having a locking engagement with the under side of said laterally-projecting flange.

6. In a lamp, the combination with a lantern section and a font section, of an annular flange on one of said sections having a laterally extending portion and said laterally extending portion terminating in a downwardly projecting annular flange, said laterally and downwardly extending portions being slotted, an annular flange on the other of said sections, and lugs projecting laterally from said flange adapted to register with said slots and upon a rotative adjustment to engage the downwardly extending annular flange.

7. In a lamp, the combination with a

lantern section and a font section, of an annular flange on one of said sections having a laterally extending portion, and said laterally extending portion terminating in a downwardly projecting annular flange, said laterally and downwardly extending portions being slotted, an annular flange on the other of said sections, and lugs projecting laterally with said slots, and cams on said laterally projecting flange intermediate said slots with which said lugs are engaged by a rotative adjustment.

8. In a lamp, the combination with a lantern section and a font section, of an annular flange on one of said sections having a laterally extending portion, and said laterally extending portion terminating in a downwardly projecting annular flange, said laterally and downwardly extending portions being slotted, an annular flange on the other of said sections, and lugs projecting laterally with said slots, cams on said laterally projecting flange intermediate said slots with which said lugs are engaged by a rotative adjustment, and a catch for en-

gaging one of said lugs to lock the same while in registration with said cams.

9. The combination with a font section having a burner bearing formed therein, an upwardly projecting annular flange thereon terminating in a slotted horizontally extending portion, a burner having a plain socket engagement with said bearing, an annular flange upon the burner having a laterally extending flange, a lantern section, a downwardly projecting annular flange upon said section having a telescopic engagement with the annular flange on the font section and adapted to have a bearing on the lateral flange of the burner, and lugs on said downwardly projecting annular flange registering with the slots in said horizontal flange of the font.

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

WARREN FRENCH.

Witnesses:

NELLIE KINSELLA,
W. J. BELKNAP.