

C. GORDON.  
Car-Lamp.

No. 219,636.

Patented Sept. 16, 1879.

Fig. 1.

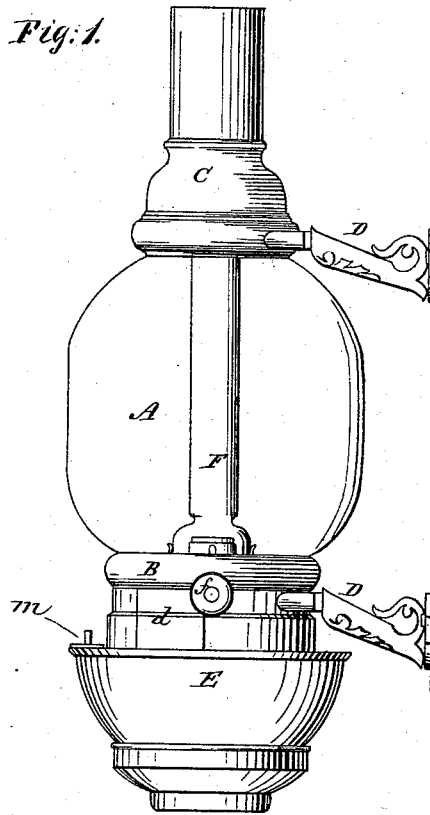
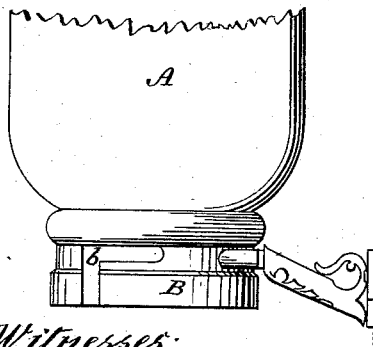
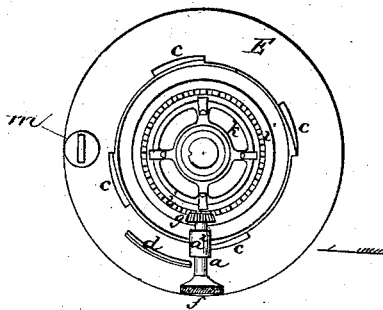


Fig. 2.



Witnesses:  
E. Wolff  
Jacob Felbel

Fig. 3.



Inventor:  
Charles Gordon  
by attorney  
J. H. McArthur

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Fig. 4.

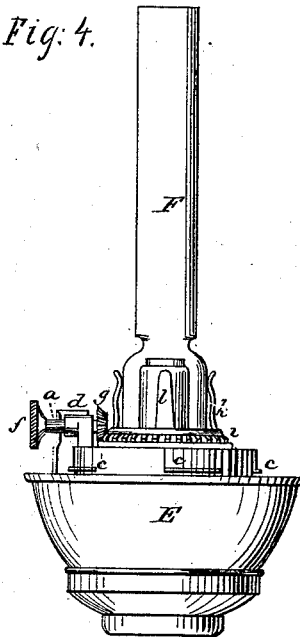


Fig. 5.

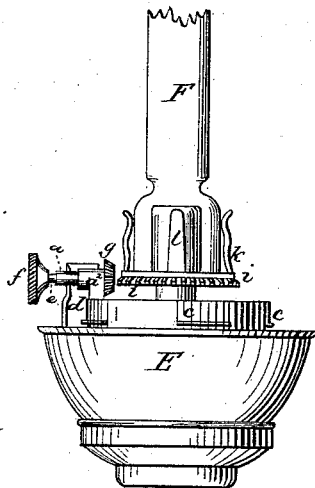
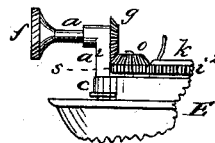


Fig. 6.



Witnesses:  
E. Wolff  
Jacob Felbel

Inventor.  
Charles Gordon  
By attorney  
J. N. McCreary

# UNITED STATES PATENT OFFICE.

CHARLES GORDON, OF CLEVELAND, OHIO.

## IMPROVEMENT IN CAR-LAMPS.

Specification forming part of Letters Patent No. **219,636**, dated September 16, 1879; application filed March 19, 1879.

### *To all whom it may concern:*

Be it known that I, CHARLES GORDON, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Lamp-Fixtures; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Previous to my invention lamp-fixtures of that kind in which the fountain and burner (either with or without a chimney) constitute, so to speak, one part, and the glass shade or globe, provided with means for its attachment at any locality at which the lamp is to be used, constitute, so to speak, the other part of the fixture, these two parts being adapted to be at pleasure united and disunited by the insertion of the burner part within and its removal from within the base or lower portion of the globe part, and having means to effect the locking together of the parts where united, have been made in different forms and under a variety of constructions, and involving, in different cases, the use of both Argand and flat-wick burners.

My invention consists, first, in the use, in connection with the chimney-gallery of an Argand burner, of devices or a mechanism for effecting the rotation of said gallery, and thus eventually effecting the adjustment of the wick, a part of which mechanism is adapted to perform also the office of a pin or lug, to co-operate with the usual slot in the base portion of that kind of lamp-fixture to which I have alluded, for the purpose of the attachment of the parts of the fixture, as will be hereinafter more fully explained; second, in making and combining the devices of the gallery-rotating mechanism so that, under a certain adjustment of the mechanism, the gallery and its permanent attachments may be removed in the usual manner for ordinary purposes, as will be hereinafter more fully set forth; third, in the employment, in connection with the fountain and burner part of that kind of fixture to which I have herein first alluded, of a shield or covering-plate adapted to cover over the slot or slit in the metallic base-ring of the other part of the fixture, and in which the securing pin or lug works, whereby any ingress of gusts of air

at said slot that might impair the steadiness of the lamp's flame is prevented.

To enable those skilled in the art to make and use my invention, I will now proceed to describe more fully the several features thereof, referring by letters to the accompanying drawings, making part of this specification, and in which I have shown a lamp embracing the said several features of improvement.

In the said drawings, Figure 1 is a side elevation of a lamp-fixture adapted to be attached to the side of a car or at some other place. Fig. 2 is a similar view of the same fixture, but with the burner and fountain part removed, and showing only the lower part of the remaining portion. Fig. 3 is a top view of the burner and fountain part of the fixture, but with the glass chimney removed. Fig. 4 is a side view of the parts seen in top view of Fig. 3, viewed from the direction indicated by the arrow at the last-named figure, but having the chimney in place. Fig. 5 is a similar view, but with the gallery-turning mechanism adjusted to permit the removal of the burner devices, and showing the gallery partially removed; and Fig. 6 is a detail view, showing a modification of the gallery-rotating mechanism.

In the several figures the same parts, wherever they occur, will be found designated by the same letter of reference.

A is the globe, of about the usual form, and provided, as ordinarily, (in the kind of fixtures shown,) with a metallic base or holder ring, B, and a top ring and chimney flue or pipe, C, from which two last mentioned parts project bracket-arms D D, for the purpose of the attachment of the fixture to a wall or car side.

E is the lamp-body or fountain portion of an Argand lamp such as I have for some time manufactured, with such improvements or changes as will be presently explained, and the burner of which is provided with the usual choke-chimney, F, common on Argand lamps.

The base-ring B is made with the usual angular slot or cut-out *b*, and is provided with a series of inwardly-projecting portions at its lower edge, steadying-springs, and a spring-catch, (not seen in the drawings,) all of which parts co-operate with the inclined lugs *c* and

pin *a* of the fountain or body *E*, to effect the coupling together of the parts of the fixture and permit their detachment, in a manner familiar to those skilled in the art to which my invention relates.

To the top of the fountain *E*, I attach an upwardly-projecting plate-like device, *d*, which is curved to correspond to the curvature of the exterior surface of base-ring *B*, and is arranged and operates to come close up to said surface of *B* and completely cover the slot *b* when the parts of the fixture are united, as illustrated at Fig. 1.

The pin *a*, in lieu of being made as usual, and serving only the purpose of engagement with the slot *b*, I have shown as made tubular and as serving also to support a short shaft or spindle, *e*, which is capable of both a rotatory and an endwise movement within its said supporting device, in a manner and for purposes to be presently explained. The outer end of said spindle *e* is provided with a milled head or finger-button, *f*, and to its inner end is secured a small bevel-pinion, *g*, which engages with or meshes into a bevel-gear, *i*, that is fast on the chimney gallery and holder *k*, all as clearly shown in the drawings at Figs. 1, 3, 4, and 5.

*l* are the usual spring-fingers for holding the chimney laterally in place on the gallery, and *m* the ordinary screw-stopper to the hole through which oil is supplied to the fountain.

The general operation of the burner and lamp is, of course, about the same as usual in the kind of lamp shown, and needs no description here; and the mode of attachment and detachment of the two parts of the fixture is analogous to the manner of coupling together and separating these parts in lamp-fixtures now in use; but when the fountain or lower portion of the fixture is pushed up within the base-ring *B*, and then partially rotated therein, so as to effect the interlocking of the incline lugs *c* and pin *a*, respectively, with the projections at the lower edge of ring *B* and the angular slot *b* in said ring, and so as to effect the locking of the parts thus put together by the usual spring-catch, the slot *b* will be completely covered over from without the ring *B*, except where it is filled by the pin *a*, by the shield or wind-guard *d*, whereby the flame will be protected against the injurious effects of any such ingress of air-currents as might enter at the slot *b* were there no means or device such as the guard or covering-plate *d*. This protector device may, of course, be made and operate differently; but I have shown it in the best form for use which now occurs to me, and in a shape which I have found to be economic of manufacture and to work satisfactorily. The gist of this feature of my invention rests in the employment, in combination with the upper part of the fountain and burner portion of the fixture, and with the slotted base-ring *B*, of means for covering over the slot *b* when the parts of the fixture are turned into a condition of union, as I have explained.

When the parts of the fixture are coupled

together, as seen at Fig. 1, the finger-button *f* of the spindle *e*, it will be observed, is exposed, so that said spindle may be rotated at pleasure from without the base-ring *B*; and it will be understood that, by turning this button *f* in one or the other direction to rotate said spindle *e*, the bevel-pinion *g* will cause the bevel-gear *i* to rotate, and that thus the chimney-gallery will be turned round in one direction or the other, and effect either the raising or lowering of the wick, as may be desired, and in a manner similar to the raising and lowering of the wick effected by the application of the hand directly to the gallery to turn it, as heretofore commonly practiced in the use of Argand lamps, in which the said gallery operates to effect the adjustment of the wick.

By the use thus of some such means as I have shown and described, and the operation of which I have just explained, I produce a fixture of the class shown in which, without the detachment of the parts—*i. e.*, the removal of the burner from the globe—the Argand wick may be screwed up or down, as occasion may require, to regulate the light; and it will be understood that the means shown for the accomplishment of this desirable object may be employed, with more or less advantage, under various modifications in Argand lamps in which the wick is adjusted by the turning of the chimney-gallery, even though such lamps be not used in conjunction with an inclosing globe, as shown in this case, since, by the use of a mechanism for turning the gallery, not only may it be more nicely adjusted, but its adjustment thus may be found more desirable to the user of the lamp than the turning of the chimney-gallery by the application of the hand to it, or to a shade-ring adapted to move the gallery, as in some forms of lamps.

To permit the lifting upward and away from the wick-tube of the gallery in the usual manner, for well-known purposes, I have made the spindle *e* capable of movement endwise, and have provided it, within its housing in the device *a*<sup>2</sup>, with a spring, which operates to keep it in the position seen at Figs. 3 and 4, so that whenever it may be desired to remove the gallery, wick, and outer wick-tube, as usual, it is only necessary to take hold of the button *f* and pull the spindle *e* outward until it and its pinion *g* are in the position seen at Fig. 5, when the gallery and other removable parts may be lifted up in the usual manner, the bevel-gear *i* being disengaged from and clear of the pinion *g*, as illustrated at said figure, where the gallery is shown partially removed.

This capacity of the gallery-rotating mechanism to permit the operation just explained may, of course, be embodied in mechanism different in form from that so far described without departing from the gist of my invention as to the feature of improvement by which I render the fixture capable of an adjustment of the burner, as described, and also capable of a ready removal of the parts usually removable in the ordinary manner. For instance,

in lieu of the sliding spindle *e*, one incapable of movement endwise may be used, provided with bevel-pinion engaging with a similar pinion on a shaft having also a spur-pinion, and the base of the chimney-gallery may be provided with a spur-gear instead of a bevel-wheel, all as shown in the detail skeleton view, Fig. 6, where the bevel-pinion *g* drives, through the medium of a similar pinion, *o*, a spur-pinion, *s*, which in turn drives the spur-gear *i*<sup>2</sup>, with which the base of the gallery is provided.

In this modified form of mechanism the gallery, it will be seen, with its spur-gear *i*<sup>2</sup>, may be lifted upward and replaced without any change in the normal condition or position of the pinion *g* and other devices.

Without wishing to limit myself in the use of my invention to any particular form of parts or details of structure not essential thereto, and not wishing the first feature of my invention to be confounded with the broad idea of the utilization of the shaft of a wick-raiser for the purposes also of an interlocking pin, to assist in the attachment of the parts of a lamp-fixture, which idea is old in the art,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the chimney-gal-

lery, of a mechanism for rotating it, parts of which mechanism are adapted to project through the base-ring of the globe, with which the lamp is designed to be connected, and serve the purposes of the usual interlocking-pin and means for operating the gallery-rotating mechanism from without said base-ring, substantially as described.

2. The combination, with a chimney-gallery which is adapted by its rotation to raise and lower the wick, of means for revolving the said gallery, the construction and operation of the devices being such, as described, that an engagement and disengagement of the parts may be effected at pleasure, for the purposes set forth.

3. In combination with the fountain and burner part of that kind of fixture shown, and with the slotted base-ring B of such a fixture, a shield, *d*, located on the fountain and exterior to the said base-ring, the whole arranged and operating in the manner and for the purpose described.

In testimony whereof I have hereunto set my hand and seal this 5th day of March, 1879.

CHARLES GORDON. [L. S.]

In presence of—

ALFRED H. BRAINARD,  
JAMES FORD.