

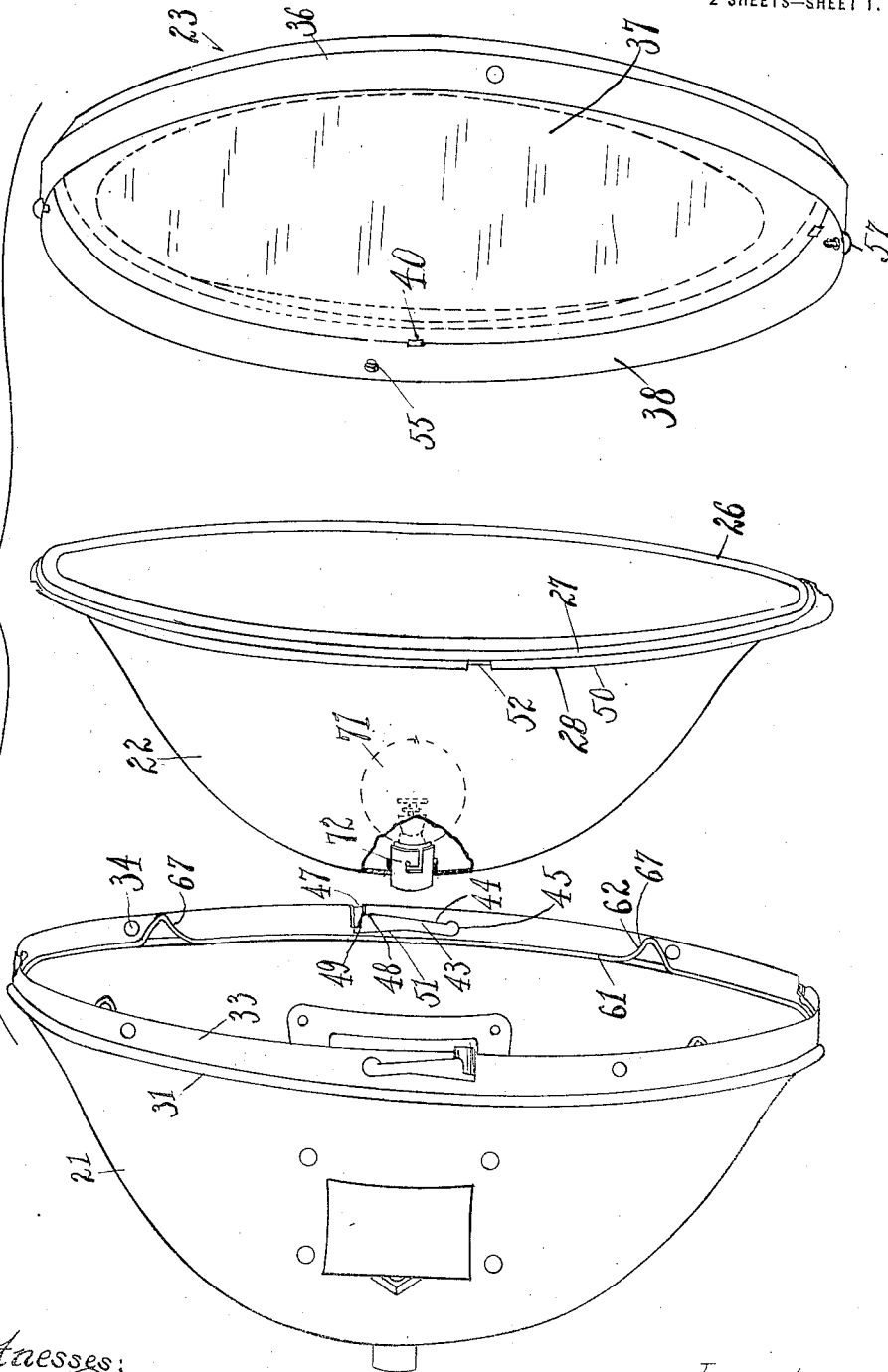
1,294,485.

E. A. KUEN
LAMP.

APPLICATION FILED APR. 7, 1916.

Patented Feb. 18, 1919.
2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:
Phil W. Gogger.
Theresa M. Silber

Inventor:
Engel A. Kuen,
by R. F. Verbeke
Attorney

E. A. KUEN

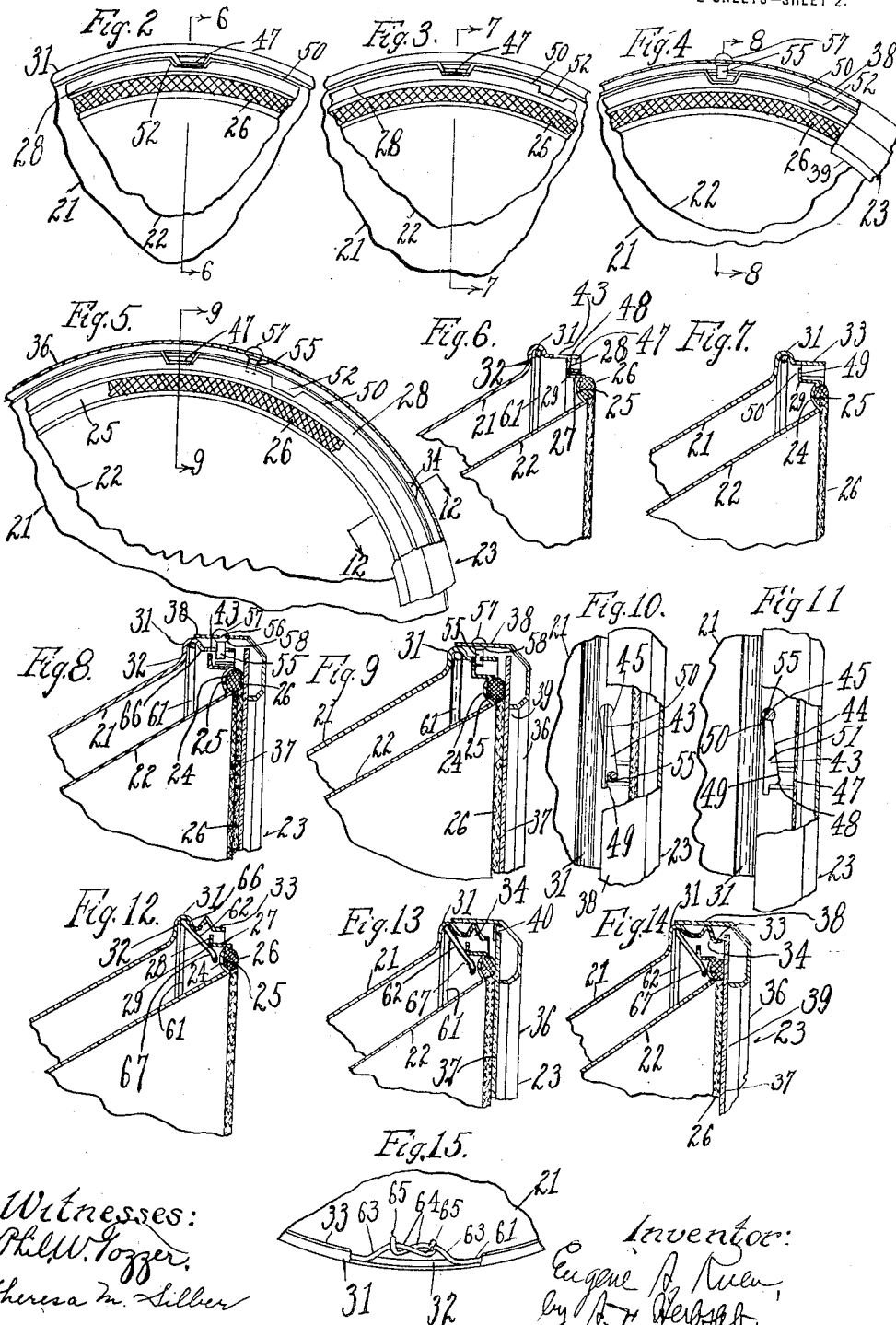
LAMP.

APPLICATION FILED APR. 7, 1916.

1,294,485.

Patented Feb. 18, 1919.

2 SHEETS—SHEET 2.



Witnesses:
Phil W. Fozger.
Theresa M. Silber

Inventor:
Eugene A. Kuen,
by R. T. Herbst,
Attorney.

UNITED STATES PATENT OFFICE.

EUGENE A. KUEN, OF CINCINNATI, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE
CORCORAN-VICTOR COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

LAMP.

1,294,485.

Specification of Letters Patent.

Patented Feb. 18, 1919.

Application filed April 7, 1916. Serial No. 89,652.

To all whom it may concern:

Be it known that I, EUGENE A. KUEN, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Lamps, of which the following is a specification.

My invention relates to lamps of the character of those known as headlights for use, for instance, on automobiles, and comprising a body, a reflector and a closure. It is the object of my invention to provide simple means for assembling the parts and maintaining the parts in assembled relation.

The invention will be readily understood from the following description and claims, and from the drawings, in which latter:

Figure 1 represents a perspective view of the lamp parts in separated relation.

Fig. 2 is a detail in front elevation of the body and reflector in relation about to be connected.

Fig. 3 is a similar view, showing the parts in connected relation.

Fig. 4 is a similar view, showing the closure about to be connected with the assembled body and reflector.

Fig. 5 is a similar view showing the door in connected relation.

Fig. 6 is a longitudinal section taken on the line 6—6 of Fig. 2.

Fig. 7 is a longitudinal section taken on the line 7—7 of Fig. 3.

Fig. 8 is a longitudinal section taken on the line 8—8 of Fig. 4.

Fig. 9 is a longitudinal section taken on the line 9—9 of Fig. 5.

Fig. 10 is a detail in side elevation, showing the closure and body in partly assembled relation.

Fig. 11 is a similar view showing the body and closure assembled.

Fig. 12 is a longitudinal section taken on the line 12—12 of Fig. 5, showing the reflector about to be assembled in the body.

Fig. 13 is a similar view showing the reflector assembled in the body and the closure about to be assembled on the body.

Fig. 14 is a similar view showing the parts in assembled relation; and,

Fig. 15 is a detail showing the manner of connecting together the ends of the annularly arranged spring.

21 represents the body of the lamp. 22 represents the reflector and 23 the closure.

The reflector is of general parabolic form

and adjacent to its outer edge is provided with a rearwardly extending annular bead 24 forming an annular groove 25 in which an annular cushion-member 26 is secured in suitable manner, as by being cemented therein. This cushion-member may be a cord, or of fabric, rubber or other suitable material. At the outer edge of the annular bead 24 there is a rearwardly projecting annular wall 27 which merges into a laterally extending annular flange 28 with an annular rounding 29.

The body is shown of general parabolic form and adjacent to its front end is provided with an annular bead 31, forming an inner annular groove 32, from which a cylindrical portion 33 of the body projects forwardly. Bulges 34 are formed in this cylindrical portion and project outwardly to substantially the diameter of the annular bead 31.

The closure or door comprises a ring-member 36 and a lens member 37, the latter preferably of glass. The ring-member has a rearwardly extending cylindrical portion 38 and an inwardly extending portion 39, the lens member being received across the latter and preferably held to the ring-member by means of clips 40 extending over the edge of the lens member and secured in suitable manner, as by soldering or brazing to the ring-member.

The forward end of the body is provided with slots 43, of which a suitable number are disposed about said forward end. The slots respectively have forwardly inclined walls 44, which at their rear ends merge into notches 45. Inwardly extending recesses 47 are formed in the forward end of the body and merge with the slots 43. These recesses preferably extend rearwardly from the forward edge of the body. The wall at one side of the respective recesses is cut away, as shown at 48, for forming the beginning of the slot 43, the other side of the wall of the recess extending downwardly and forming an inwardly extending lip 49 arranged to be received over the peripheral edge 50 of the reflector. The slots 43 are provided with clearance enlargements 51 at their entrance ends.

The edge of the reflector is provided with a suitable number of notches 52 arranged to be received about the inwardly extending walls of the recesses 47.

The ring-member 36 is provided with a

suitable number of inwardly extending pins 55 which are arranged to be received through the recesses 47 and into the slots 43 and, by rotation of the closure, are arranged to pass lengthwise of the inclined walls 44, whereby the closure and body are drawn toward each other, and to be received in the notches 45 for maintaining the parts in locked relation. The pins are respectively rigidly secured to the ring-member as by having the pin pass through a hole 56 in the cylindrical portion 38, the cylindrical portion being clamped between the head 57 of the pin and a shoulder 58 struck up thereon.

An annularly arranged wire spring-ring 61 is provided having spring-lips 62 bent integrally therefrom, the ends of the wire being connected by bending said ends inwardly toward the center of the ring, as shown at 63, then outwardly and crossingly, as shown at 64, and then inwardly and about the opposite end of the wire for forming an encircling knot 65 and rigidly connecting said ends. The annularly arranged spring-wire is resiliently received in the annular groove 32 of the body, the resilient lips 62 projecting radially slantingly inward and toward the open end of the body and held in normal position by contact with the annular shoulder 66 between the annular bead 31 and cylindrical portion 33 of the body. The inner ends of the resilient lips are provided with an inward bend 67 for causing easy riding of the reflector parts upon the lips in assembling the parts and preventing obstructing contact of the ends of said lips with the bead 24.

The manner of connecting the ends of the wire spring-ring insures that the slant of all the lips 62 shall be equal and exert equal pressure upon the reflector at their various points of contact with the reflector, for the reason that torsional twist in the wire is resisted at both ends of the wire by the laterally extending encircling knots 65 encircling the laterally extending bends 63 and having reversely laterally extending stretches 64 between said knots.

A suitable light element, for instance, an incandescent electric light-bulb 71 is suitably secured in the reflector by means of a suitable socket 72, suitably secured in the reflector or body, and suitable means are provided, if desired, for adjusting the socket with relation to the reflector and the light-bulb in the focal axis of the reflector, not shown because well known.

In assembling the parts, the reflector is received in the body of the lamp, with the inner edge of its annular flange 28 resting on the resilient lips 62, as indicated in Fig. 12, the notches 52 registering with the walls of the recesses 45, as indicated in Figs. 2 and 6. Pressure being applied upon the

reflector, its annular flange 28 will be pressed inwardly for being received under the inwardly extending lips 49, so that when rotative movement is applied to the reflector its annular flange will be located under said lips, as indicated in Figs. 3 and 7, whereby also a depression of the spring-lips is caused, as indicated in Fig. 13.

The closure is then assembled on the body by an axial movement of the closure toward the body, with the pins 55 received in the recesses 47, as indicated in Figs. 4 and 8. Upon pressure being brought to bear upon the closure toward the body and rotative movement being applied to the closure, the pins will be caused to be received in the slots 43 and to ride upon the inclined walls 44 for drawing the closure and body toward one another in a direction parallel to the line of the principal axis of the reflector. Contact will thereby be made between the closure, preferably by its transparent member 37, with the annular cushion-member 26, and pressure applied to said cushion-member, the pressure upon the reflector by means of the closure being exerted through the annular cushion-member, the reflector also being moved inwardly, resisted by the action of the resilient lips 62, placing the parts in the relations shown in Figs. 9, 11 and 14.

The outwardly extending bulges 34 insure central location between the closure and the body and also provide ready rotative movement and reduce friction during said movement.

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

1. In a lamp, the combination of a body, a reflector having a rearwardly extending annular bead at its outer portion and a rearwardly extending annular wall in rear of said bead forming an annular channel, and resilient fingers provided with inwardly bent ends extending slantingly forward from said body received in said annular channel, the rear edge of said rearwardly extending annular wall arranged to impinge said fingers intermediate of their ends, whereby to cause axial resilient separating pressure between said body and reflector.

2. In a lamp, the combination of a body, a reflector having a rearwardly extending annular bead at its outer portion and a rearwardly extending annular wall in rear of said bead forming an annular channel, resilient fingers extending slantingly forward from said body received in said annular channel and provided with outer ends bent radially inward of said body; the rear edge of said rearwardly extending annular wall arranged to impinge said fingers intermediate of their ends, and said radially inwardly bent ends of said fingers arranged to

impinge said annular bead, and said closure and body provided with coacting connecting means arranged to press said reflector and body axially toward one another for causing contact between said fingers and said wall and bead.

3. In a lamp, the combination of a body having a forwardly extending annular forward end provided with inwardly extending recesses and with slots with which said recesses connect at one of the sides of said recesses, said slots having inclined front walls, said recesses having inwardly extending inner walls forming shoulders at the sides of said recesses opposite said slots, a reflector received in said body having a peripheral edge provided with notches received about said inwardly extending inner walls, and arranged to be partially rotated in said body for having said peripheral edge received under said shoulders, a closure extending crosswise of said reflector provided with a rearwardly extending peripheral flange, and pins extending inwardly from said flange received through said recesses into said slots.

4. In a lamp, the combination of a body having an annular bead in its front portion and a forwardly extending cylindrical front end in front of said bead provided with inwardly extending recesses and with slots with which said recesses connect, said slots having inclined front walls, a reflector received in said body, a rotary door comprising a ring-member and a lens-member, said lens-member extending crosswise of said reflector, said ring-member provided with a rearwardly extending peripheral annular flange, and pins extending inwardly from said flange received in said slots, said cylindrical front end of said body and said annular flange of said ring-member provided with separated bulges between them for relatively centering the same and relieving the friction between them upon relative rotative movement between said ring-member and body.

5. In a lamp, the combination of a body having an outwardly laterally extending annular bead in its front portion and a forwardly extending annular flange in front of said bead, said flange provided with slots having inclined front walls and with inwardly extending recesses communicating with said slots forming radially inwardly extending walls, a reflector received in said body, said reflector having a peripheral edge provided with notches arranged to pass said radially inwardly extending walls for recep-

tion of said peripheral edge under the inner ends of said walls upon rotation of said reflector, and an annularly arranged spring in said bead acting forwardly upon said reflector, said inwardly radially extending walls limiting said forward action, a rotary door comprising a ring-member and a lens-member, said lens-member extending crosswise of said reflector, said ring-member provided with a rearwardly extending peripheral annular flange received about and separated from said annular flange of said body and arranged to contact said outwardly laterally extending annular bead of said body, and pins extending inwardly from said flange of said ring-member received through said recesses into said slots, said pins and recesses inclosed within said annular flange of said ring-member and said annular bead of said body.

6. In a lamp, the combination of a body having a laterally outwardly extending annular bead in its front portion and a forwardly extending annular flange in front of said bead, said bead forming an inner groove in said body, an annularly arranged wire spring-ring in said annular groove formed with resilient lips bent integrally therefrom and projecting radially and slantingly inward and toward the open end of said body, the ends of said wire spring-ring connected together by bending said ends inwardly in radial manner toward the center of the ring in substantially the plane of the ring, then in radial manner outwardly and crossingly substantially in the plane of the ring, and then in radial manner inwardly and then outwardly about opposite sides of said first-named bent portions forming encircling knots and rigidly connecting said ends for resisting torsional movement in said wire spring-ring, a reflector received in said body, said resilient lips coacting with said reflector for pressing the same outwardly, and a rotary door comprising a ring-member and a lens-member, said lens-member extending crosswise of said reflector received about the outer end of said body, and pin and slot connecting means between said closure and body for drawing said closure toward said body by rotative movement of said closure.

In testimony whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

EUGENE A. KUEN.

Witnesses:

THERESA M. SILBER,
DAWSON E. BRADLEY.