J. L. DINSMOOR.

LAMP GLOBE.

APPLICATION FILED MAY 14, 1908.

923,155. Patented June 1, 1909.

Fig. 1.

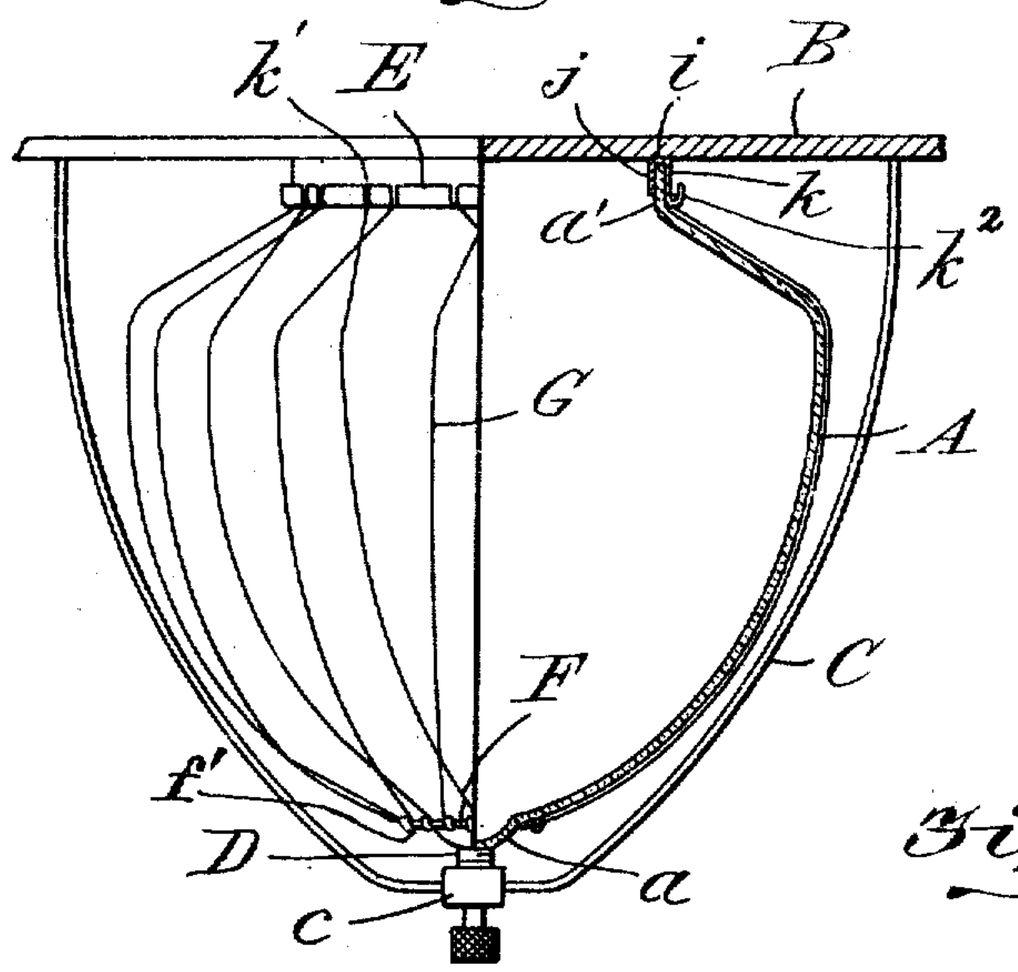


Fig. 3.

Fig. 2.

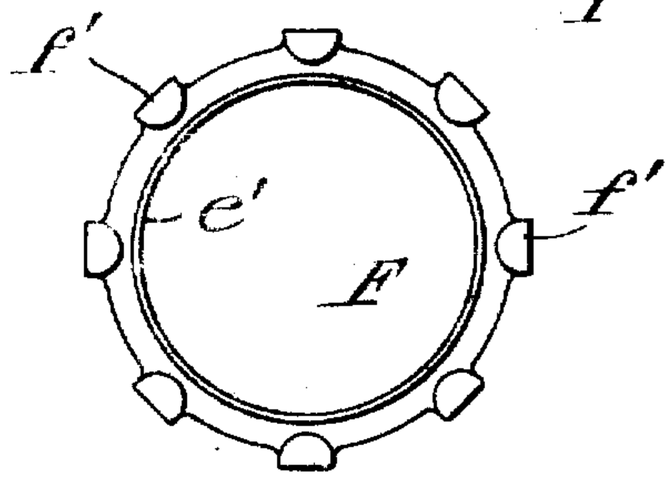
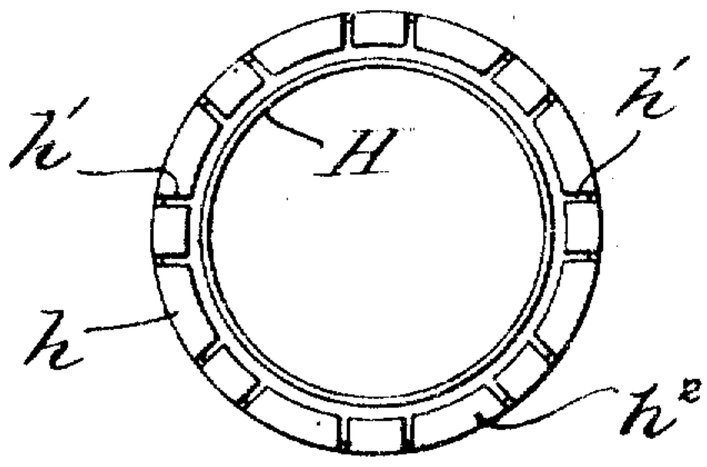


Fig. 4.



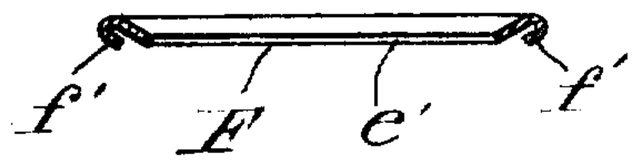
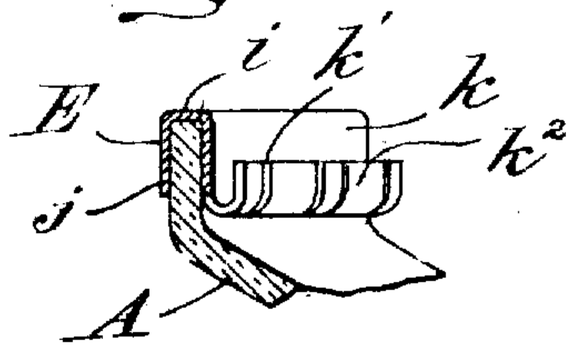


Fig. 5.

Fig. 6.



WITNESSES

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LAMP-GLOBE.

No. 923,155. Specification of Letters Patent. Patented June 1, 1909.

Application filed May 14, 1908. Serial No. 432,766.

To all whom it may concern:

Be it known that I, JOHN L. DINSMOOR, a citizen of the United States, residing in the city of New York, borough of Brooklyn, county of Kings, and State of New York, have invented a certain new and useful Lamp-Globe, of which the following is a specification.

This invention is a lamp globe involving several features of novelty, among which may be mentioned, first, an improved net or protector for the globe, and, second, a new construction of gas check.

Fire underwriters and inspectors, in many localities, require that globes for lamps, and particularly arc lamps of certain types, be protected by a net, the main functions of which are to prevent injury from falling parts of the globe should the same become cracked or fractured, to strengthen the globe, and, also, in event of the globe becoming cracked to hold the parts thereof together, thereby precluding the carbon dust from spreading about.

My net is an improvement over the ones heretofore employed as regards its efficiency, simplicity in construction, readiness of application of the globe, and economy in manufacture.

My improved gas check embodies novel means secured to the edge of the globe, which not only strengthens said edge, but permits of a close joint being readily made between the edge of the globe and the bottom platform of the lamp, thereby increasing the life of the carbons owing to their confinement within an atmosphere of comparatively non-oxidizing gases.

The net and gas check are generally used in conjunction, thereby contributing jointly to the efficiency of the globe to which they are applied, but it will be manifest that, for certain purposes, they may be used separately.

In the accompanying drawings I have illustrated different practical embodiments of the invention, but the constructions shown therein are to be understood as illustrative, only, and not as defining the limits of the invention.

Figure 1 is an elevation, partly in section, showing the invention applied to, and used in connection with, a globe of an electric arc lamp. Fig. 2 is an inverted or bottom plan view of the lower collar. Fig. 3 is a cross section through said lower collar. Fig. 4 is a bottom plan view of another form of the lower collar. Fig. 5 is a cross section of the collar shown in Fig. 4, and Fig. 6 is a cross section of a part of the upper collar applied to the top edge of a lamp globe substantially as shown in Fig. 1.

A designates one form of the globe which is shown herein as having a closed and pointed lower end, *a*, and an upstanding flange, *a'*, at its upper open end, but it will be understood that the form of the globe is not a material part of the invention. Said globe is shown as held against the bottom of platform, B, of a lamp by a yoke, C, and a clamping screw, D, said screw being supported in a threaded bearing or nut, *c*, of said yoke, C.

The means for protecting globe, A, consists of a rim or collar, E, adapted to be fitted to the upper part of said globe, another collar, F, applied to the lower part of said globe, and a net, G, the latter being connected to said upper and lower collars, E, F, respectively, by lacing a substantially continuous wire back and forth between the collars, the lengths of said wires composing the net engaging with the outer surface of globe, A.

The preferred construction of upper collar, E, is shown in Figs. 1 and 6 of the drawings, and said collar is in the form of a channeled rim adapted to serve as a combined gas check and as a collar for the attachment of the wire composing the globe incasing net. Said channeled rim, E, is provided, as shown more clearly in Fig. 6, with an internal flange, *j*, a flat upper surface or web, *i*, and an external flange, *k*. Said external flange of the upper collar is doubled or folded upon itself, and is provided with kerfs or incisions, *k'*, the latter producing the external net attaching devices, k^2, which are in the form of lips positioned externally with respect to the channeled rim and below the flat upper surface or web, *i*. Said rim fits over the edge of globe, A, so that its flat face or web, *i*, is adapted for engagement with lamp platform, B.

Lower collar, F, is composed, essentially, of a one-piece metallic rim provided with means for connecting to said collar the length of wire adapted to compose the net which protects the globe. As shown in Figs. 2 and 3, said lower collar is a "punching", that is to say, a piece of metal which is

shaped to the required form by the operation of suitable dies. Said collar consists of a ring, e', on the outer edge of which is a series of lips, f'. Said lower collar, F, is preferably somewhat smaller in diameter than the upper rim or collar, E, and the lips, f', of said collar, F, extend or open downwardly substantially as shown in Fig. 3. The relative sizes of collars, E, F, is not an important feature of the invention, for the reason that said collars will be made to correspond, substantially, to the external diameter of globe, A, at the points where said collars are to be fitted thereto.

As shown in Fig. 1, lower collar, F, is applied externally to the lower closed part of globe, A, whereas upper rim or collar, E, is fitted to the edge of said globe.

It is preferred to employ a substantially continuous length of wire which is laced back and forth between upper rim or collar, E, and lower collar, F. Said wire is looped around lips, h^2, of the upper rim or collar, E, thence carried outside of the globe, lengthwise thereof, to lips, f', of lower collar, F, around which said wire is looped. The wire is then carried upwardly to rim or collar, E, looped around another lip, h^2, thereof, and thence carried downwardly to lower collar, F, this operation being continued until the wire substantially incases the globe. Said wire is engaged alternately with the lips of upper and lower collars, E, F, after which the ends of the wire may be twisted together, or said ends may be fastened in any suitable or approved way.

From the preceding description it is apparent that the lips of collars, E, F, provide easy and convenient means for looping the strand or wire so as to attach the latter to the collars. The lips of the collars are of such form that the wire cannot be displaced therefrom, said wire being held in a taut condition.

Obviously, the collars may be easily and quickly applied to a globe, and the wire thereafter expeditiously laced around the globe and engaged with the external lips of said collars, thus enabling unskilled labor to be employed in applying the protector to a globe.

Another form of the lower collar is shown in Figs. 4 and 5 of the drawings, wherein the collar consists of a spun metal ring, H, one edge of which is turned over to produce a flange, h. After the ring shall have been spun to the required form, a series of slits or kerfs, h', are cut in the turned-over flange, h. The spun metal ring and its flange are adapted to be economically and quickly produced, and thereafter the kerfs are cut by a rotary metal saw cutting into said curved flange, h. It is to be observed that the ring, H, is constructed to produce external lips, h^2, similar to the lips, f', of the punched collar shown in Figs. 2 and 3, said lips h^2 being on the outside of the collar so as to produce thereon the net attaching devices.

The upper rim or collar, E, shown in Figs. 1 and 6, may be a spun metal rim having a channel in one side thereof, or it may be a punched metal rim having the channel, the upper side of the collar presenting a solid or unbroken surface which is formed by the web, i, which presents a substantially flat annular face. Said channeled rim, E, is fitted snugly over the upper edge of globe, A, so as to embrace said edge, thereby securing a reinforcing device for the edge of the globe, which device precludes the possibility of the edge chipping in the operation of handling the globe. At the same time, said channeled rim is adapted to coöperate with lamp platform, B, in a way to produce a gas tight joint between the globe and said platform of the lamp frame.

It will be noted that flat surface or web, i, of upper collar or rim, E, engages with platform, B, and by tightening screw, D, the globe is pressed upwardly, so that the flat face or web, i, of rim, E, will be forced tightly against platform, B. This precludes the ingress of air into globe, A, and the egress of gases from said globe, whereby the arc is enveloped by an atmosphere of comparatively non-oxidizing gas.

It will be observed that the external lips of the upper channeled rim or collar, E, have the lengths of wire looped around them, thus anchoring the upper lengths of wire composing the net, G. It is manifest that the channeled rim, E, and the external lips thereof may be composed of cast metal, spun metal, or punched metal, but for accuracy in construction and economy in manufacture, it is preferred to either punch said rim or spin it.

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

1. A lamp globe having its edge provided with a channeled rim embracing the edge of said globe and forming a gas check therefor, and net-attaching devices on said rim.

2. A lamp globe having its edge provided with a channeled rim permanently secured to the globe and embracing the edge portion thereof to form a gas check therefor, net-attaching devices on said rim, a collar provided with net-attaching devices, and a net secured to said net-attaching devices on the rim and collar, respectively.

3. A lamp globe having its upper edge provided with a channeled rim permanently secured to the edge portion of said globe and forming a gas check therefor, net attaching devices on said rim, a collar near the lower part of the globe, and a net incasing the globe

and composed of a substantially continuous length of wire laced back and forth between the rim and the collar.

4. A lamp globe open at its upper end, and a channeled rim embracing the edge portion of said globe, said channeled rim being provided with a bearing edge adapted for engagement with a lamp plate so as to form a substantially gas tight joint therewith, said channeled rim being provided, also, with net attaching devices positioned substantially below said bearing edge.

5. A lamp globe open at its upper end, and a metallic channeled rim applied to the upper portion of said globe, said rim embracing the edge of said globe and the inner and outer faces adjacent to said edge, the upper face of said rim forming a bearing face adapted for substantially gas tight engagement with a lamp plate, said channeled rim being provided with net-attaching devices which are positioned exteriorly to, and below the plane of, said bearing face of the rim.

6. In a device of the class described, a metallic rim provided with a channel or groove, said rim having a bearing face on one side, and net-attaching devices projecting from the outer side of the rim and positioned below said bearing face.

7. In a device of the class described, a metallic rim composed of concentric flanges and a web uniting said flanges, said web and flanges forming a channel which opens through one edge of the rim, and said web constituting a continuous bearing face on the opposite edge of the rim, and net-attaching devices integral with the outer flange of the rim, and positioned substantially below said bearing face.

8. In a device of the class described, a metallic rim provided with a channel which opens through one edge thereof, the opposite edge of the rim being closed by a web which forms a bearing face, and hooks integral with said rim and positioned externally thereof, substantially below said bearing face.

9. The combination with a lamp plate, of a globe, a channeled rim embracing the edge of said globe and provided with a bearing face adapted for engagement with said lamp plate, said rim being provided, also, with net-attaching devices positioned exteriorly thereon, a collar on the globe, a net engaging with said collar and the net-attaching devices of the rim, and means for clamping the globe for the bearing face of said channeled rim to engage firmly with the lamp plate.

10. The combination of a lamp globe, a channeled rim embracing an edge of the globe at the open upper part thereof, said rim having an exposed bearing face and net-attaching devices below, and exteriorly to, said bearing face, a collar on the lower part of the globe, and a net engaging said collar and the net-attaching devices of the rim, said net being laced to draw the channeled rim into firm engagement with the edge of said globe.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN L. DINSMOOR.

Witnesses:

H. I. BERNHARD,

V. E. MARKMANN.