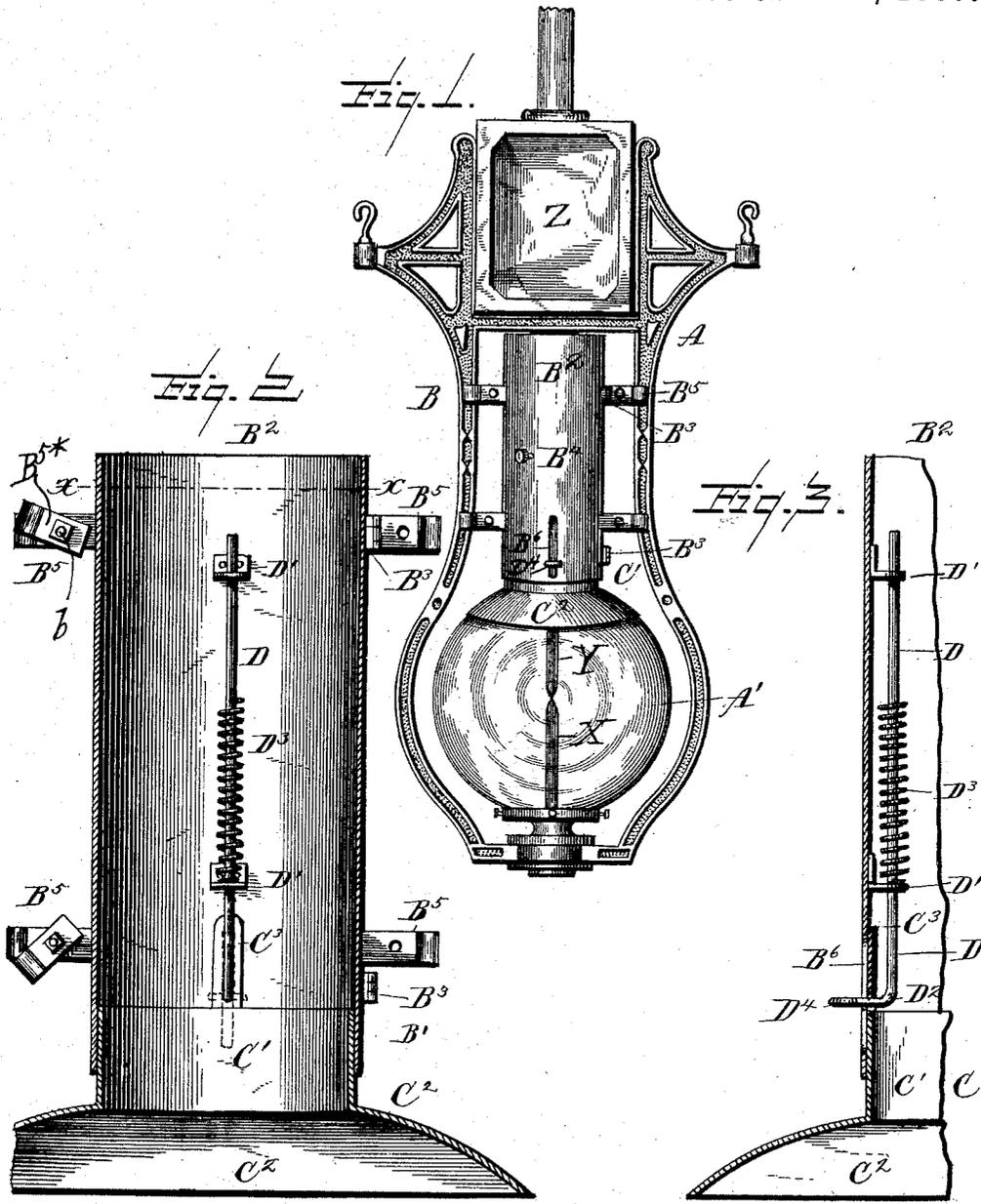


(No Model.)

F. BREDOW.  
PROTECTOR FOR LAMP GLOBES.

No. 356,270.

Patented Jan. 18, 1887.



WITNESSES:  
*S. C. Hills*  
*W. S. Duwall*

Fig. 4. *Frank Bredow*  
 INVENTOR:  
 BY *E. B. Stocking*  
 ATTORNEY.

# UNITED STATES PATENT OFFICE.

FRANK BREDOW, OF DAVENPORT, IOWA.

## PROTECTOR FOR LAMP-GLOBES.

SPECIFICATION forming part of Letters Patent No. 356,270, dated January 18, 1887.

Application filed April 16, 1886. Serial No. 199,090. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK BREDOW, a citizen of the United States, residing at Davenport, in the county of Scott, State of Iowa, have invented certain new and useful Improvements in Protectors for Lamp-Globes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to covers or protectors for electric-arc and other lamp globes, for the purpose of preventing rain, snow, dust, and insects and foreign substances from entering the same and causing impairment of the light. These lamps are exposed in the open air to snow and rain, and as now constructed are open at the top, so that the snow and rain freely enters, causing the globe to crack, and the dust and insects entering causes the inside of the globe to become dirty and dull, whereby frequent cleaning of the same is required. By my construction I obviate these disadvantages by closing the top of said globe, thus preventing ingress of foreign substances and the egress of sparks.

The protector or cover as constructed is adapted to be applied to different sized globes, it (the protector) automatically adapting itself thereto. Although I have herein illustrated my invention as applied to an ordinary electric-arc lamp and frame, it is apparent that it may be adapted to any lamp-globe where it can be used to advantage.

Heretofore globe-protectors have been constructed to support the globe or to be supported by a ceiling, from which the lamp is supported by a suitable hanger or bracket.

My improvement relates more particularly to the manner of supporting the protector, so that it is attached to and is movable with the hanger of the frame-work that supports the globe A', carbons X Y, and the case Z, in which the carbon-controlling devices are arranged, these parts being of any well-known construction and forming no part of my invention.

With these objects in view my invention consists in certain features of construction, hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, in which like let-

ters of reference indicate like parts, Figure 1 is a side elevation of an ordinary electric-arc lamp provided with my invention. Fig. 2 is a central vertical section of my cover detached; and Fig. 3 is a similar view, the section being taken at a right angle to the one shown in Fig. 2. Fig. 4 is a cross-section taken on the line  $x$  of Fig. 2, the cylinder being shown open.

A represents the bracket or frame-work which supports the lamp A', its carbon-controlling mechanism, and a case, Z, therefor, said bracket being suspended in the usual manner.

B represents a light (and in this instance a sheet metal) cylinder, formed of two parts or leaves, B' B<sup>2</sup>, the dividing lines being substantially diametrically opposite each other and forming two semi-cylindrical sections. The sections or leaves B' B<sup>2</sup> are hinged, as at B<sup>3</sup>, and one is provided with a knob, B<sup>4</sup>, for facilitating the opening and closing of one of said sections.

The cylinder B is held to the frame A and above the globe A' by means of clamps B<sup>5</sup>, each consisting of a bar fixed to and projecting from the cylinder far enough to rest against one side of the frame A, and a movable bar, B<sup>5x</sup>, pivoted to the fixed bar, so as to be turned against the opposite side of the frame A, the bolt  $b$  serving to bind the two bars firmly upon the frame. This construction permits a removable and adjustable attachment of the protector, whereby it is adapted to varied sizes and styles of frames.

C represents the lamp or globe protector, which is formed with the collar C' and flared bell-shaped covering C<sup>2</sup>. The collar C' is adapted to fit and slide within the cylinder B, and the flared bell-shaped portion C<sup>2</sup> is adapted to fit down closely upon the globe A' of the lamp.

Mounted in apertured brackets D' upon the inside of the cylinder, and extending down to about the top of the collar C', is a rod, D, which is bent, as at D<sup>2</sup>, and projected through the shield-plate C<sup>3</sup>, extending upwardly from the collar C', and through a vertical slot, B<sup>6</sup>, formed in the cylinder. The shield-plate C<sup>3</sup> may, if desired, be simply an extension of the collar C', or it may be an independent plate, the object being merely to close the vertical

slot in the cylinder. Upon the rod D is mounted a spiral spring, D<sup>3</sup>, the upper end of which is secured to the rod and the lower end to the bracket D', whereby the tendency of the spring is to force the cover or protector C<sup>2</sup>, by means of the rod, down closely over the lamp-globe. The rod D, after passing through the shield-plate C<sup>3</sup> and aperture or slot B<sup>6</sup> of the cylinder, is bent to form a handle, D<sup>4</sup>, for the purpose of raising the protector, by means of said rod, out of contact with the lamp-globe, for the purpose of cleaning the same. The spring D<sup>3</sup> may be extended to bear upon the under surface of the upper bracket, D', while its lower end is secured to the rod; but as this arrangement of coiled springs about rods is old in many devices, no claim is made, broadly, thereto.

It is apparent that the hinged section B' of the cylinder serves the purpose of a door, thus giving access to the interior for adjusting the movable carbon or supplying new carbons, and this without the necessity of removing the entire device.

To remove the device as a whole from the lamp-bracket, it is only necessary to turn the clamps B<sup>3x</sup> so as to disconnect the cylinder from the frame. Raising the rod D' by the handle D<sup>4</sup> causes the protector to rise out of contact with the globe A'. This latter operation also permits the removal and interchange of globes for cleaning or other purposes.

It will be seen that the device as a whole is adapted to be applied to all sizes of lamps, as by reason of the self-adjusting features the protector will be adapted to globes of different diameters, although the protector should conform more or less closely to the curvature of the globe.

The cover or protector is held with a yielding pressure upon the globe, whereby contraction and expansion of the globe may take place and still a comparatively tight contact of the two be maintained. I have shown one spring-pressure rod; but it is apparent that, if desired, two or more may be employed.

The protector C<sup>2</sup> is formed on a true curve—that is, of such form as to fit snugly a spherical globe of the same radius—and yet it will touch globes of different radii at substantially

all the points necessary to make a dust-tight joint, and this even if the globe has a vertical flange at the top, as is quite usual, whereas if the protector had a depending flange, as is usual, greater liability of a misfit with globes would exist.

Having thus fully described my invention and its operation, what I claim, and desire to secure by Letters Patent, is—

1. The combination of an electric-light-globe-supporting frame-work, a case for the carbon-controlling mechanism, a globe supported by the frame-work, a cylinder removably secured to the frame-work below the carbon-controlling-mechanism case and over the globe, and a concave flangeless globe-protector secured to a sleeve movable in the cylinder to bring the protector upon the globe, substantially as specified.

2. A cover for electric and other lamps, consisting of a cylinder formed in two sections hinged together and provided with attaching-clamps, in combination with a lamp-frame and with a spring-actuated rod mounted in said cylinder, and a globe-covering portion in the end of said cylinder, substantially as specified.

3. The frame A, cylinder B, consisting of the two sections B' B<sup>2</sup>, the rod D, and spring D<sup>3</sup>, in combination with the bell-shaped cover C, substantially as specified.

4. The combination, with the frame of a lamp, of the cylinder B, consisting of the two sections B' B<sup>2</sup>, hinged, as at B<sup>3</sup>, and having the cover C mounted therein, of clamps arranged at the sides of said cylinder for securing the same to the sides of a lamp-bracket, substantially as specified.

5. The frame A, cylinder B, slotted, as at B<sup>5</sup>, and having the spring-actuated rod D, bent as at D<sup>2</sup> D<sup>4</sup>, mounted therein, in combination with the cover C, having the bell-shaped portion C<sup>2</sup> and collar C', and the shield-plate C<sup>3</sup>, substantially as specified.

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

FRANK BREDOW.

Witnesses:

CHARLES E. PUTNAM,  
R. WOODMANSEE.