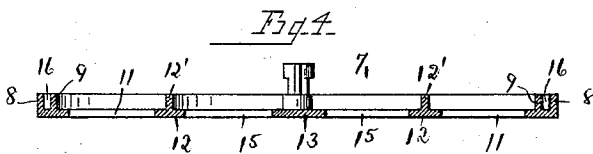
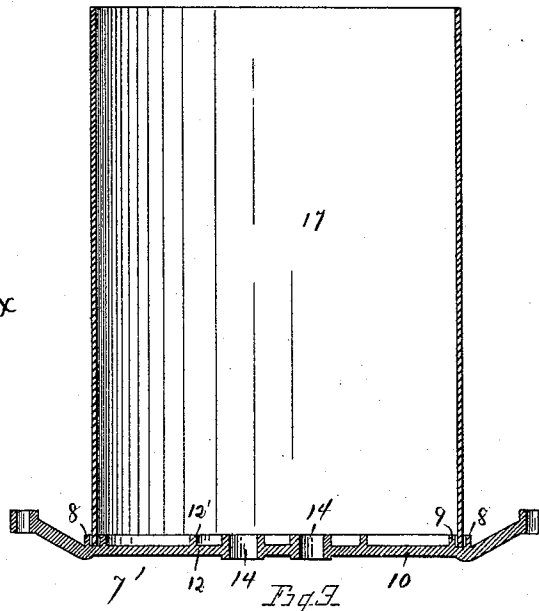
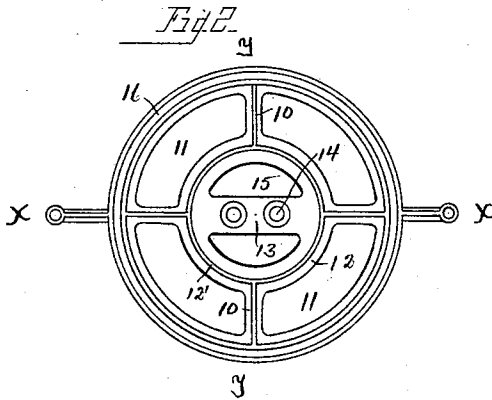
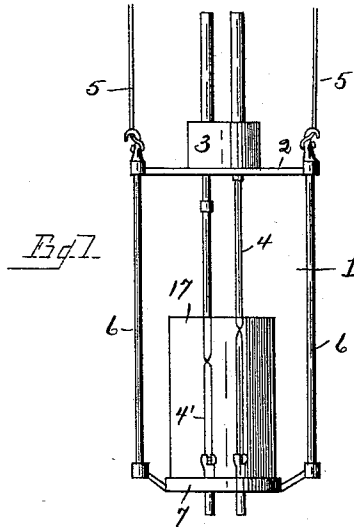


(No Model.)

T. H. FABEN.
GLOBE HOLDER FOR ARC LIGHTS.

No. 495,318.

Patented Apr. 11, 1893.



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS H. FABEN, OF TOLEDO, OHIO.

GLOBE-HOLDER FOR ARC LIGHTS.

SPECIFICATION forming part of Letters Patent No. 495,318, dated April 11, 1893.

Application filed October 14, 1891. Serial No. 408,640. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. FABEN, of Toledo, county of Lucas, and State of Ohio, have invented certain new and useful Improvements in Globe-Holders for Arc Lights; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

My invention relates to globe holders for arc lights and has especial relation to electric lights such as are suspended in the open air, wherein the variations of temperature cause a sudden expansion or contraction of the globe, with a consequent liability to breakage.

The invention further relates to a provision for allowing a free passage therethrough of the heated particles from the carbon-points, as well as the mass of insects that heretofore have been deposited in the globe and holder.

Heretofore in the branch of the art to which my invention belongs the globes have usually been constructed with a contracted base, which fits within a holder necessarily provided with fastening devices for securing the same therein, the upper portion of the globe being of greater diameter, and therefore somewhat top-heavy. This means for securing the globe has resulted in frequent breakage, by reason of the sudden expansion or contraction of the globe due to either climatic changes or sudden cessation, or resumption of light caused by fluctuating feed of the movable point or points.

In the usual construction of globe holders, owing to the small area of the base, it has been necessary to construct the base solid in order to give it sufficient strength, thereby forming a practically closed receptacle of the globe and holder for the sparks or particles emitted from the carbon points, which tend to, and in fact do, frequently cause breakage of the globe, this receptacle also forming a housing for the insects which swarm about the light and by too close contact therewith, are either killed or stunned, and fall therein, thereby requiring frequent removal of the same.

The object of my invention is to obviate these objections, by forming a cylindrical globe of like diameter throughout its length, and a globe holder having an annular recess, into which the globe when seated, is firmly held in place by the annular rings forming the recess, with openings between the annular rings and the central portion of the base, through which all particles thrown off by the carbons, as well as insects that may be caught within the globe, may pass and fall to the earth or floor, there being an inner ring formed integral with the base to allow of using the usual form of globe, should the supply of straight globes become exhausted.

In the drawings:—Figure 1 is a side elevation of a complete lamp as suspended. Fig. 2 is a plan view of the holder showing the circumferential groove in which the globe fits, also the openings in the base to allow all foreign matter as insects, particles of copper or carbon, &c., to pass through. Fig. 3 is a sectional elevation on lines $x-x$ Fig. 2 of the holder and globe, the globe being shown in operative position with the bottom portion supported within the groove. Fig. 4 is a sectional elevation on lines $y-y$ Fig. 2, showing the groove and openings of the holder.

1 designates the lamp which may be of any desired construction, the one shown being a preferred form, and is composed of the cross bar 2 on which is placed the carbon feed operator 3 which adjusts the feed of the carbon-points 4 to the stationary points 4' the cross piece being suspended by the wires 5.

6 designates the side rods which support the globe holder 7 which is formed with an outer and inner annular ring 8 and 9 respectively, connected by the radial arms 10 with an inner ring 12 and between which arms are openings 11 through which any matter that may fall into the globe may pass.

13 designates a bar extending diametrically across ring 12 and formed with openings 14 in which the lower carbon holders are secured, the ring 12 being formed with a circumferential annulus 12' which extends vertically therefrom a sufficient height to allow of placing the contracted base of the present form of globe thereon, there being openings 15 upon each side for the same purpose as

openings 11 concentric to ring 12. The annular channel 16 formed by the rings 8 and 9 is of a depth to allow the end of the globe to be seated therein, and is of a greater area in cross section than the thickness of the side of the globe, to allow of expansion, or contraction of the globe without breakage.

17 designates the globe, which is of cylindrical form of the same diameter throughout its length, thereby allowing of reversal of the ends with relation to the globe holder, should either end become fractured, and also by this construction allowing of an even expansion or contraction of the globe, as well as obviating the necessity of the usual screws or springs for holding the globe in the holder, as by reason of the broad base, as well as the upper portion of like area, the globe will rest immovable in the holder by inserting the base in the channel 16. By reason of the openings 11 any matter such as copper or carbon particles or dead insects, that may pass into

the globe is allowed a free passage there-through thereby obviating the frequent breakage occasioned by the heat from the particles, or an accumulation, necessary to be removed at short intervals. This provision being also made when the globe with a contracted base is used, as openings 15 will subserve the same purpose.

What I claim is—

In an arc light a globe holder formed with a base comprising a ring, carbon holders central of the ring, a ring concentric to the inner ring, formed with an annular channel, arms connecting the two rings, and a globe supported upon the base.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

THOMAS H. FABEN.

Witnesses:

WILLIAM WEBSTER,
CARROLL J. WEBSTER.