E. E. FREDERICK.

GLOBE AND GLOBE HOLDER.

APPLICATION FILED MAR. 4, 1912.

1,029,356.

Patented June 11, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

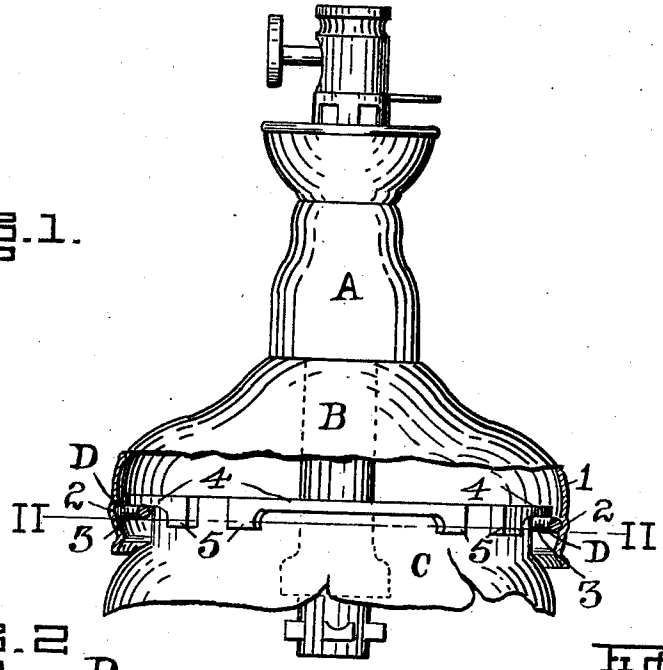


Fig. 2.

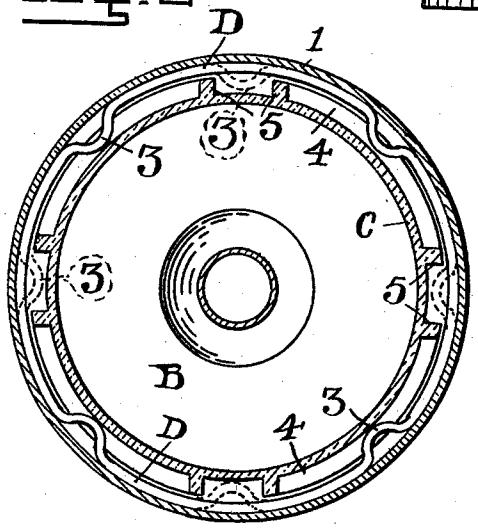
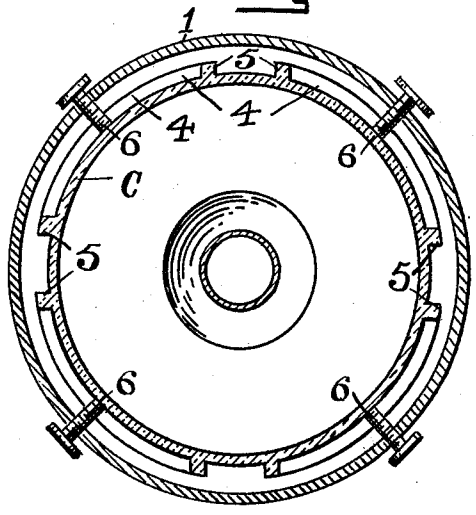


Fig. 3.



WITNESSES

R. A. Dilworth

B. C. Jennison

INVENTOR

Edwin E. Frederick,

by Edward A. Lawrence

his Att'y.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

E. E. FREDERICK.

GLOBE AND GLOBE HOLDER.

APPLICATION FILED MAR. 4, 1912.

1,029,356.

Patented June 11, 1912.

2 SHEETS—SHEET 2.

FIG. 4.

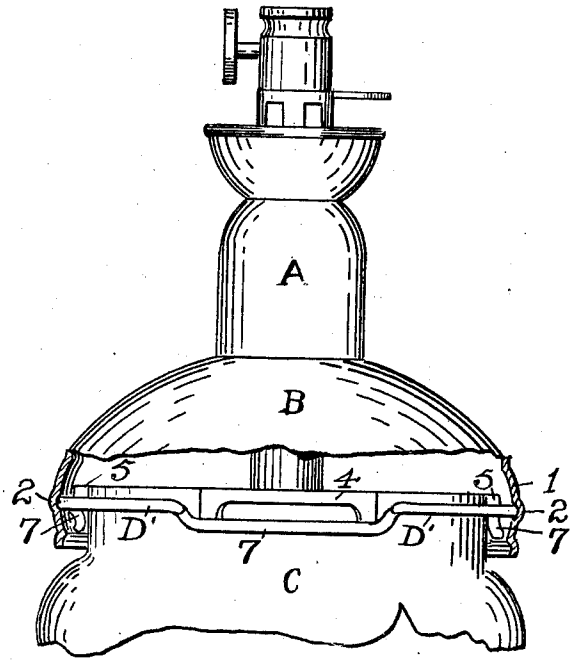


FIG. 5.

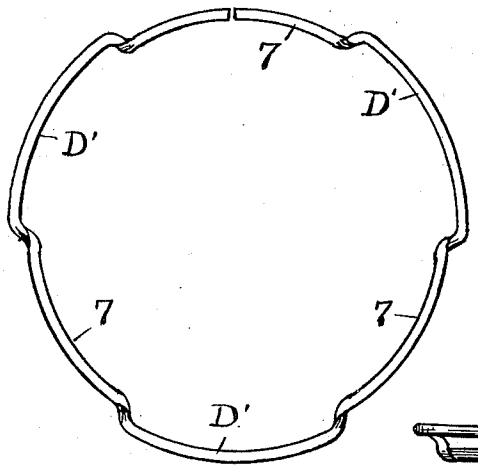
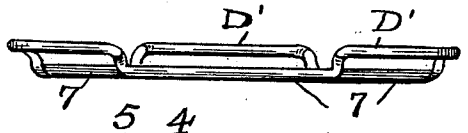


FIG. 6.



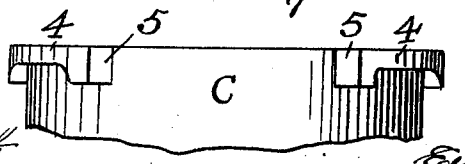


FIG. 7.

WITNESSES

R. F. Wilworth

B. C. Tunison

INVENTOR

Edwin E. Frederick,

by Edward A. Laurence,

His Att'y.

UNITED STATES PATENT OFFICE.

EDWIN E. FREDERICK, OF BRIDGEVILLE BOROUGH, PENNSYLVANIA.

GLOBE AND GLOBE-HOLDER.

1,029,356. Specification of Letters Patent. Patented June 11, 1912.

Application filed March 4, 1912. Serial No. 681,354.

To all whom it may concern:

Be it known that I, EDWIN E. FREDERICK, a citizen of the United States, and residing in the borough of Bridgeville, in the county of Allegheny and State of Pennsylvania, have invented or discovered new and useful Improvements in Globes and Globe-Holders, of which the following is a specification.

My invention consists in certain new and useful improvements in globe and globe-holders.

It may be used in connection with light-fixtures of any character, but is especially applicable to inverted lights, such as inverted incandescent gas-lights.

My object is to secure the globe firmly in place without the use of expensive set-screws or other elements which are inconvenient and unsatisfactory, and also mar the appearance of the fixture.

My object is also to secure the globe in place in such a manner that its insertion into the fixture and partial rotation therein is sufficient to mount the globe and a reverse operation is sufficient to dismount the same.

My object is also to provide an inexpensive yet effective, durable and ornamental holder.

My object is also to provide a globe adapted both for use in connection with my improved globe-holder and also in connection with the types of globe-holder now in general use.

To accomplish the ends in view, I mount in the holder an annulus of wire or similar material, preferably seating the same in a circumferential groove or seat which conceals the annulus from the exterior of the holder. Such annulus is preferably sprung into said seat and provided with a plurality of inwardly extending loops or projections which coact with a corresponding number of flanges on the upper portion of the globe, the former engaging the latter from below. The said flanges are arc-shaped and spaced apart at their ends to permit of the passage of the loops of the annulus between the same.

In the preferred form of my annulus the loops engage the under faces of the flanges between downwardly extending end portions of said flanges which act as stops and prevent said flanges from being disengaged from said loops by the rotation of the globe. The globe is mounted in the holder by turning the former so that the intervals between the flanges register with the loops, then inserting the globe into the holder, and then turning the globe until the flanges and loops register when the globe may be allowed to descend until the flanges rest upon and are supported by said loops. To release the globe, the same is raised so that the flanges are out of contact with the loops and then turned until the spaces between the said flanges register with the said loops, when the globe may be lowered out of the holder.

While my novel form of globe is especially intended for use in connection with my holder, the former may be equally well used in connection with the types of holder now in general use, as, for instance, the form of holder in which the globe is secured by means of set-screws or wherein the globe is engaged by a resilient annulus.

In the accompanying drawings, Figure 1 is an elevation, partially broken away, showing an inverted incandenscent gas-light fitted with my invention, Fig. 2 is a cross-section seen from below of the same along the line II—II in Fig. 1; Fig. 3 is a similar section seen from below showing my improved holder held by set-screws in the ordinary type of holder; Fig. 4 is a view similar to Fig. 1 but showing a modification; Fig. 5 is a plan view of the form of annulus used therein; Fig. 6 is a side elevation of said annulus, and Fig. 7 is broken elevation of the globe used in connection therewith.

The following is a detailed description of the drawings, reference being first had to Figs. 1, 2 and 3. A is an inverted light-fixture, shown for illustration as an inverted incandescent gas-light. B is the holder-plate mounted thereon in any convenient manner. C is a globe, shade, reflector or similar article to be secured to said plate. The plate B is provided with the usual depending annular flange 1 which I provide with an interior circumferential groove or seat 2 in which is seated, preferably by springing the same thereinto, an annulus D of wire or similar materal provided with inwardly extending integral loops or projections 3—3. The globe C is provided on its upper portion with a plurality of arc-shaped exterior flanges arranged in annular series and corresponding in number to the

loops or projections 3—3. The said flanges are separated by spaces or intervals sufficient to permit the passage of said loops between the flanges when the globe is inserted or removed from the holder. The ends of the flanges are provided with downwardly extending stops or end portions 5—5.

To mount the globe in place, the same is turned so that the loops 3—3 register with the spaces between the flanges 4—4, as shown in dotted lines in Fig. 2, and the upper portion of the globe is inserted into the holder until the flanges 4—4 and stops 5—5 are above the loops 3—3. The globe is then rotated slightly until the loops 3—3 register with the flanges 4—4 between the stops 5—5, as shown in solid lines in Fig. 2, whereupon the globe is lowered until said flanges rest upon said loops and support the globe in place. An accidental rotation of the globe will not result in disengaging the flanges from the loops owing to the stops 5—5. To dismount the globe, the same is raised, so that the flanges and stops are above the loops, and then rotated until the spaces between the flanges register with said loops, when the globe may be lowered out of the holder.

Although my globe is especially intended to be used with my improved holder, it may also be used, as shown in Fig. 3, in connection with the set-screw type of holder, the set-screws 6—6 being shown threaded through the annular flange 1 of the holder and engaging the under faces of the flange 4—4 of the globe between the stops 5—5. The stops prevent the rotation of the globe disengaging the same from the set-screws. The globe may be mounted and dismounted in a manner similar to that above described, or in the manner now used in connection with globes having a continuous flange used with set-screw holders. My globe may also be used in connection with holders provided with spring annuli which encircle the upper portion of the globe.

Referring now to Figs. 4, 5, 6 and 7, the holder-plate B has seated in its seat 2 an annulus D′ provided with a plurality of loops 7—7 which form seats for the reception of the flanges 4—4 of the globe C, said flanges being in this case spaced apart sufficiently to permit the passage between the same of said loops 7—7 when the globe is being inserted into or removed from the holder. In this case the stops 5—5 may be omitted, if desired, since the ends of the loops 7—7 will prevent the rotation of the globe unless said globe is raised in the holder. However, I prefer to provide said stops even with globes intended to be used with the modified form of annulus inasmuch as the globe is thus given a wider range of use with various types of holders.

It is evident from the foregoing that I have produced a globe-holder and globe of inexpensive construction, adapted to ready adjustment, and of pleasing appearance, the exterior of the holder plate being unmarred by any fastening device or mechanism or holding rivets and the annulus being entirely concealed from view. The globe may be used in connection with my holder or with any other form of holder now in the market, thus enabling the substitution of my new globe for general use and avoiding the necessity of a special stock or line of goods for my holder.

The annulus is cheaply made from wire and furnishes the most efficient type of globe-supporting member, no cutting or stamping of the material of the holder-plate being required except the formation of the groove or seat 2 which is otherwise of substantial advantage for stiffening and strengthening the thin metal of the flange 1. By the use of my annulus I do away with the unsightly and inconvenient set-screws or the riveting of devices to the holder-plate for the support of the globe.

In the manufacture of inexpensive or low-priced goods, these considerations are of the first importance, as the cost of the goods must be kept to a minimum and the ornamental character must be maintained.

What I desire to claim is:—

1. In combination with a globe having an annular series of spaced-apart flanges on the upper portion thereof, a holder therefor having a depending annular flange into which the globe is inserted from below, said annular flange being provided with a seat, and a wire annulus sprung into said seat and provided with a plurality of inwardly extending integral loops upon which said globe-flanges rest whereby said globe is supported in said holder.

2. In combination with a globe having an annular series of spaced-apart flanges on the upper portion thereof, the ends of said flanges being turned downwardly to form stops, a holder therefor having a depending annular flange into which the globe is inserted from below, said annular flange being provided with a seat, and a wire annulus sprung into said seat and provided with a plurality of inwardly extending integral loops upon which the under face of said globe-flanges rest between said stops whereby said globe is supported in said holder.

3. In combination with an inverted holder provided with a depending flange having a plurality of inwardly projecting supporting members, a globe having a circumferential series of spaced-apart flanges on the upper portion thereof, said flanges being formed with plain bottom edges and downwardly extending stops at each end of said bottom edges, whereby said globe may be mounted in said holder by causing the intervals be-

tween the globe-flanges to register with said inwardly projecting supporting members and inserting said globe upwardly into said annular flange and then rotating said globe until by dropping the same the bottom edges of said globe-flanges between said stops rest upon said supporting members.

Signed at Pittsburgh, Penna. this 1st day of March, 1912.

EDWIN E. FREDERICK.

Witnesses:
J. H. HARRISON,
E. A. LAWRENCE.