A. G. & W. J WRAY.

SELF BINDING GLOBE AND FIXTURE.

APPLICATION FILED SEPT. 26, 1912.

1,048,926.

Patented Dec. 31, 1912.

2 SHEETS—SHEET 1.

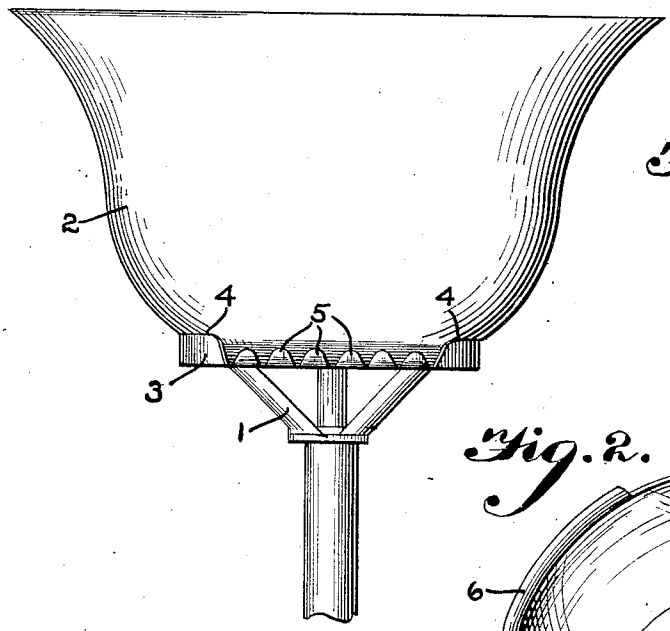


Fig. 1.

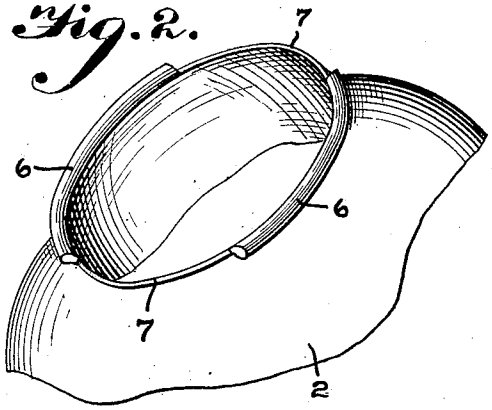
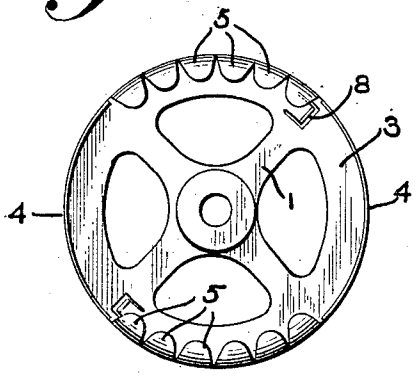


Fig. 2.

Fig. 3.



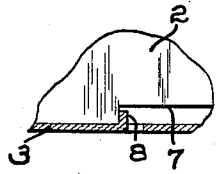


Fig. 5.

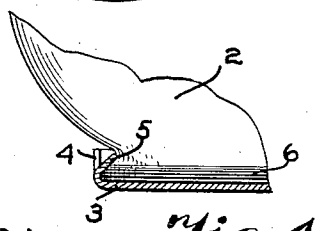


Fig. 4.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 6.

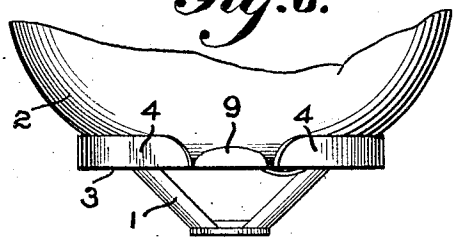
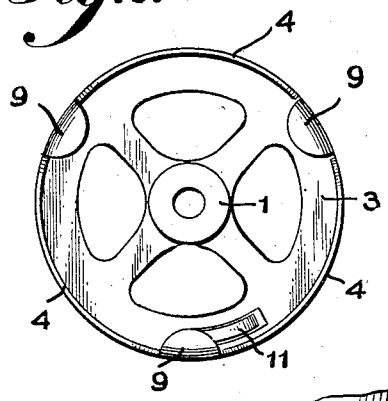


Fig. 7.



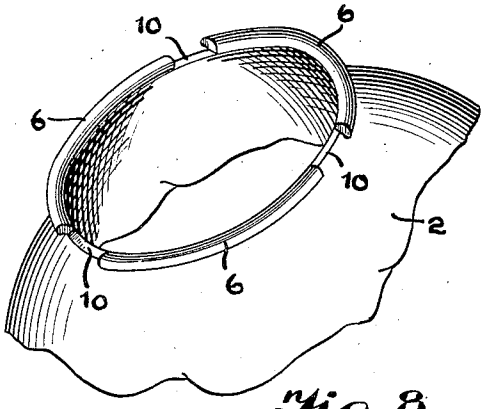


Fig. 8.

Fig. 9.

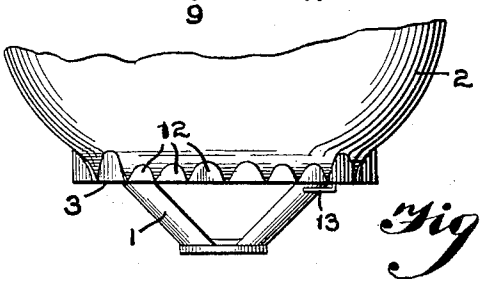


Fig. 10.

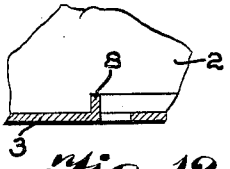


Fig. 12.

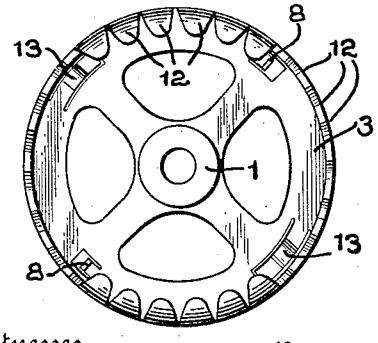


Fig. 11.

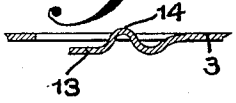


Fig. 13.

Witnesses

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SELF-BINDING GLOBE AND FIXTURE.

1,048,926. Specification of Letters Patent. Patented Dec. 31, 1912.

Application filed September 26, 1912. Serial No. 722,525.

To all whom it may concern:

Be it known that we, ALEXANDER G. WRAY and WILLIAM J. WRAY, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Self-Binding Globes and Fixtures, of which the following is a specification.

Our invention relates to improvements in self binding globes and fixtures, the object of the invention being to provide an improved construction of ring which is adapted for use in connection with an improved construction of globe, whereby the globe will be securely attached to the ring without the employment of screws or any third part.

A further object is to provide what I term a self binding globe and fixture having a plurality of contact points on the fixture which binds against the globe and provide improved means for limiting the movement of the globe with relation to the fixture.

A further object is to provide improvements of this character which will be of extreme simplicity, which will be neat and attractive in appearance, and which will be strong and durable in use.

With these and other objects in view, the invention consists in certain novel features of construction, and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1 is a fragmentary view in side elevation illustrating one form of our improvements. Fig. 2 is a perspective view of the lower end of the globe. Fig. 3 is a plan view of the globe attaching ring. Fig. 4 is a fragmentary view in section through one of the spring tongues showing the manner of engagement of the same with the globe. Fig. 5 is a fragmentary view in section illustrating one of the stops in engagement with the end wall of a recess in the globe. Fig. 6 is a fragmentary view in elevation illustrating a modification. Fig. 7 is a plan view of the ring shown in Fig. 6. Fig. 8 is a fragmentary perspective view of the globe shown in Fig. 6. Fig. 9 is a view in longitudinal section through the ring illustrating the bottom stop. Fig. 10 is a fragmentary view in side elevation illustrating another modification. Fig. 11 is a plan view of the ring shown in Fig. 10. Fig. 12 is a fragmentary view in section illustrating the fixed stop on the ring shown in Fig. 11, and Fig. 13 is a fragmentary view in longitudinal section illustrating the stop which controls the return movement of the globe so as to prevent accidental movement.

1 represents what we term a fixture and 2 a globe.

The fixture 1 is adapted for attachment to any pipe, chandelier, or lamp, or may be used in various other ways to support globes or analogous devices, and the fixture 1 is provided with a ring 3, the fixture, ring, and all of the parts forming the same being preferably of sheet metal stamped from a single blank. The ring 3 is provided around its edge with segmental flanges 4, and between the segmental flanges 4 inwardly bent spring tongues 5 are provided. The invention of course, is not limited to the particular number of these spring tongues, but in Fig. 1 we show a plurality of such spring tongues between the flanges. The globe 2 is formed at its lower edge with an annular flange 6, and this annular flange 6 is recessed at opposite sides as shown at 7 to provide an entrance for the spring tongues 5. In other words, the globe is placed upon the ring 3, so that the recesses 9 receive the spring tongues 5. When the globe is given a partial turn, the flange 6 rides under the spring tongues and is effectually clamped thereby. The ring 4, at opposite sides, is provided with upwardly bent lugs 8 which move in the recesses 7 and engage the end walls of the recesses, limiting the turning movement of the globe in the ring, so that when the globe is turned to locking position, the lugs 8 will stop such turning movement and prevent the globe being turned too far.

In Figs. 6, 7, and 8, we illustrate a modification in which we provide at regular intervals around the ring 3, single spring tongues 9. The flange 6 of the globe 2 is provided with three small recesses 10 to receive the tongues 9, and when the globe is

turned to position the spring tongues over the flange 6, the globe will be securely locked. The ring 3 of this modification is provided in its base portion with a spring catch 11, which rides upon the lower face of the flange 6, and springs into one of the recesses 10 and bears against the end wall of said recess to limit the turning movement of the globe. This spring catch 11 also exerts a frictional action against the lower face of the globe to prevent any accidental movement thereof.

In the modification illustrated in Figs. 10 and 11, a ring 3 is provided all around its edge with tongues 12, certain of said tongues being bent inwardly and operate in the same manner as the spring tongues above described. By providing the spring tongues all around the ring, the fixture has the general appearance of a serrated edge, but it is to be understood that only certain of these tongues are bent inwardly to grip the base flange of the globe.

In this last-mentioned modification, the base of the ring is formed with upwardly bent lugs 8 to limit the turning movement of the globe, and in addition the ring is provided with spring friction locks 13. These spring friction locks are formed by cutting out the ring and bending the strip thus cut out into compound curvature as shown in Fig. 13, the upwardly bowed intermediate portion 14 of said strip constituting a spring-pressed lug to bear against the flange, and to spring into the recess in the globe and serve as a brake to overcome any tendency of the globe to turn in a direction to unlock. It is to be understood, however, that this spring action can be overcome by pressure on the globe, so that the globe can be readily released from the fixture.

It will thus be seen that our improved fixture in the several modifications above described provides on the ring, a plurality of spring gripping tongues. These tongues operate as contact points with the flange of the globe, and we may provide as many as desired, it being understood that the flange of the globe will be recessed in accordance with the size and number of these spring tongues. The lugs 8 serve to limit the turning movement in one direction, and the spring friction locks serve to prevent accidental movement of the globe to release. No third part is necessary to insure the effectual locking of the globe to the fixture, and the parts may be manufactured and sold at a reasonably low price.

Various slight changes might be made in the general form and arrangement of parts described without departing from our invention, and hence we do not limit ourselves to the precise details set forth, but consider ourselves at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1. The combination with a fixture having a ring thereon, of a globe, said globe having a flange at its edges, a flange around the ring, said flange comprising a plurality of segmental sections, integral contact devices on the ring between the segmental sections of the flange and adapted to engage the flange of the globe, and recesses in the flange providing entrances for said spring contact devices, substantially as described.

2. The combination with a fixture having a ring thereon, of a globe, said globe having a flange at its edge, a flange around the ring, said flange comprising a plurality of segmental sections, integral contact devices on the ring between the segmental sections of the flange and adapted to engage the flange of the globe, recesses in the flange providing entrances for said spring contact devices, and devices on the ring limiting the turning movement of the globe on the ring, substantially as described.

3. The combination with a fixture, of a globe, said fixture having a ring thereon, a flange on the globe fitting within the ring of the fixture and having recesses therein, a flange around the ring, said flange comprising a plurality of segmental sections, integral spring tongues on the ring between the segmental flange sections and adapted to be projected through the recesses in the flange, and when turned, ride over the flange, and lugs on the ring adapted to engage the end walls of the recesses and limit the turning movement of the globe in the ring, substantially as described.

4. The combination with a fixture, of a globe, said fixture having a ring thereon, a flange on the globe fitting within the ring of the fixture and having recesses therein, a flange around the ring, said flange comprising a plurality of segmental sections, integral spring tongues on the ring between the segmental flange sections and adapted to be projected through the recesses in the flange, and when turned, ride over the flange, and lugs on the ring adapted to engage the end walls of the recesses and limit the turning movement of the globe in the ring, and a spring friction lock on the ring bearing against the under face of the flange and adapted to spring into a recess therein. substantially as described.

5. The combination with a globe having an annular flange at its end, said flange having recesses therein, of a fixture, a ring integral with the fixture, a flange on the ring receiving the flange of the globe therein, said flange comprising a plurality of seg-

mental sections, spring tongues cut from the flange of the fixture, located between the segmental sections and constructed to engage over the flange of the globe, and means on the fixture engaging the globe and limiting the turning movement of the globe in the fixture, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ALEXANDER G. WRAY.
WILLIAM J. WRAY.

Witnesses:
R. H. KRENKEL,
CHAS. E. POTTS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."