Nov. 4, 1952 F. R. NEGLEY 2,616,743

GLOBE CHANGER

Filed July 14, 1950

Fig. 2

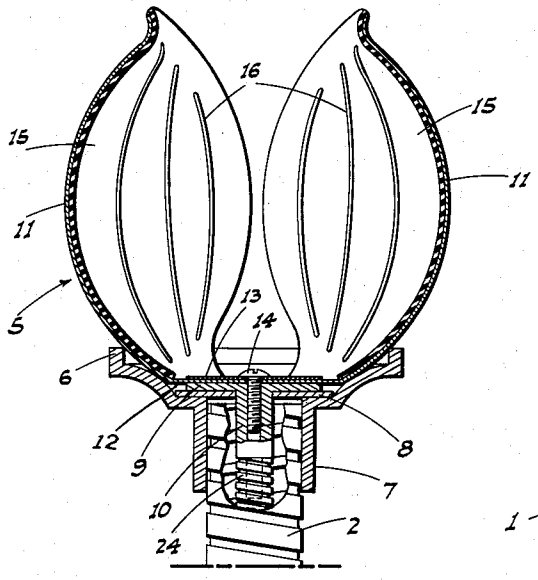


Fig. 1

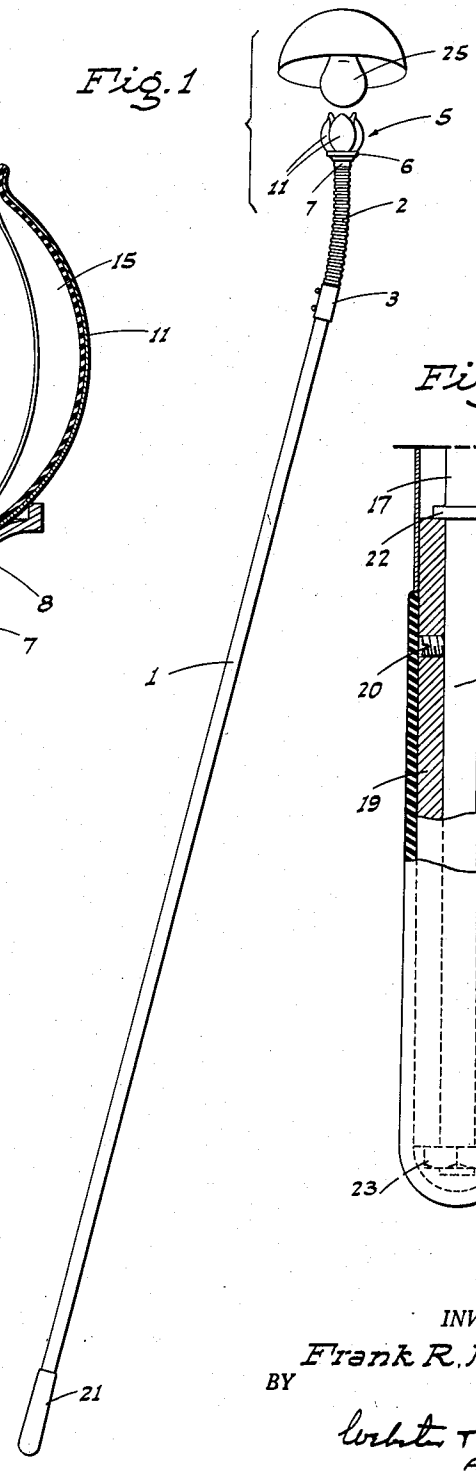


Fig. 3

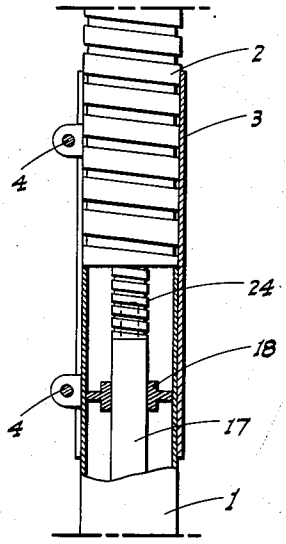


Fig. 4

INVENTOR.
Frank R. Negley
BY
Wolcott & Wolcott
ATTYS

Patented Nov. 4, 1952 2,616,743

UNITED STATES PATENT OFFICE

2,616,743

GLOBE CHANGER

Frank R. Negley, Fresno, Calif.

Application July 14, 1950, Serial No. 173,717

4 Claims. (Cl. 294—21)

1

This invention is directed to, and it is an object to provide, a novel device for use to change electric globes in out-of-reach sockets; the invention being especially designed, but not limited, for use to change globes in the over-head fixtures of store windows.

Another object of the invention is to provide a globe changer which includes a novel jaw assembly, at the outer end of an elongated handle, for engagement with a globe in frictional holding relation; there being means to rotate said jaw assembly from the inner end of said handle.

A further object of the invention is to provide a globe changer, as above, which includes a flexible portion at the outer end of the handle so that ready access to inconveniently located globes is obtained; the jaw assembly rotating means functioning effectively in any position of adjustment of the flexible portion of said handle.

It is also an object of the invention to provide a globe changer which is designed for ease and economy of manufacture.

Still another object of the invention is to provide a practical and reliable globe changer, and one which will be exceedingly effective for the purpose for which it is designed.

These objects are accomplished by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings:

Fig. 1 is a perspective view of the globe changer ready for use.

Fig. 2 is an enlarged, fragmentary sectional elevation showing particularly the jaw assembly.

Fig. 3 is an enlarged fragmentary sectional elevation taken at the connection between the rigid, tubular handle and the flexible outer end portion thereon.

Fig. 4 is an enlarged fragmentary sectional elevation showing the hand grip arrangement at the lower end of the handle.

Referring now more particularly to the characters of reference on the drawings, the globe changer comprises a rigid, elongated handle 1 which is tubular, and at its outer end such handle is fitted with a relatively short extension formed of flexible tubing 2. The flexible tubing extension 2 is secured to the handle 1 by a connection sleeve 3 clamped in place, as at 4.

At its outer end the flexible tubing extension 2 is fitted with a globe engaging jaw assembly, indicated generally at 5; said jaw assembly being rotatably mounted, and comprising the following:

An outwardly opening cup 6 is secured to the

2

free end of the flexible tubing extension 2 by means of an attachment collar 7.

A washer 8 seats in the bottom of the cup 6, and a flat circular head 9 rests on the washer 8 and includes a neck 10 which depends therethrough.

A plurality of circumferentially spaced petal-like resilient jaws 11 project from the cup 6, and said jaws are integral, at their lower ends, with a circular bottom plate 12 which rests on the head 9, being clamped to the latter in concentric relation by holding disc 13 on top of said plate 12. The holding disc 13 is secured by a screw 14 which runs downwardly through the assembly of parts and threads into the depending neck 10.

With the above arrangement the jaw assembly 5 is rotatably mounted in the cup 6; the latter preventing undue outward deflection of the resilient jaws 11 upon engagement of a globe by the latter.

The petal-like resilient jaws 11 are faced on the inside with a friction lining 15 of rubber or the like, and longitudinal ribs 16 extend inwardly from said lining whereby to enhance the grip of the jaw assembly 5 on an electric globe engaged within said assembly.

The jaw assembly 5 is rotated from the lower end of the handle 1 by means of the following mechanism:

A control rod 17 extends through the handle 1, being supported at one or more points by spiders 18.

At its lower end the control rod 17 projects out of the handle 1 and is there fitted with a longitudinal hand grip 19 secured by a set screw 20; said hand grip 19 having a non-slip sleeve 21 thereon for hand engagement.

The hand grip 19 is located on the rod 17 between a shoulder 22 and a retention nut 23.

A flexible shaft 24 extends substantially full length within the flexible tubing extension 2 and connects between the control rod 19 and the depending neck 10; the arrangement being such that the flexible shaft 24 may work the rotary jaw assembly 5 in any angular position to which the flexible tubing extension 2 may be adjusted.

The above described globe changer can be readily and conveniently used to remove and replace electric globes from out-of-reach fixtures or sockets. The device is especially useful to aid in the changing of globes in store window fixtures, where many times the globe is at a high or remote point.

When the device is in use the handle 1 is

manipulated to dispose the jaw assembly 5 adjacent the electric globe 25, as in Fig. 1. Thereafter, the jaw assembly 5 is thrust into engagement with said globe, and with continued motion the globe is frictionally engaged between the resilient jaws 11. With the globe in the jaw assembly, the hand grip is rotated; the rotary motion being transmitted by the control rod 17 and flexible shaft 24 to the jaw assembly; the latter turning in the cup 6 to unscrew the globe. After the burned-out globe is removed from the jaw assembly and a new one inserted therein, the foregoing steps are repeated in reverse to place the new globe in its socket.

The described globe changer is handy and convenient to use, and provides a very practical device for the purpose.

From the foregoing description it will be readily seen that there has been produced such a device as substantially fulfills the objects of the invention, as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations therefrom may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described the invention, the following is claimed as new and useful, and upon which Letters Patent are desired:

1. A globe changer which includes an elongated handle, a jaw assembly rotatably mounted on the upper end of the handle, and means operative to rotate said jaw assembly from the lower portion of the handle; said jaw assembly including a bottom disc, a plurality of circumferentially spaced, resilient jaws projecting outwardly from and integral with the bottom disc and yieldably resisting spreading movement, and a jaw assembly retention cup on the outer end of the handle, said cup having the jaw assembly seated therein and preventing undue outward deflection of the resilient jaws upon engagement of a globe therebetween.

2. In a globe changer having an elongated tubular handle and an internal shaft, within the handle manually rotatable separate from the handle, a collar in which the upper end of the handle is secured, an enlarged shallow cup on the upper end of the collar, a jaw unit turnable in the cup and including a plurality of upstanding resilient globe-engaging jaws and a flat bottom plate integral with the jaws, a circular head seated in the bottom of the cup under the plate, a neck depending from the head inside the tubular handle and to which the upper end of the internal shaft is connected, and means clamping the head against the bottom plate.

3. A structure as in claim 2, in which the jaws yieldably resist spreading movement and each jaw is externally convex, the cup including an upstanding rim flange engaging the jaws at a point above the junction of the bottom plate with said jaws.

4. In a globe changer having an elongated tubular handle and a relatively turnable shaft within the handle; a collar fixed on the upper end of the handle and having a flat top surface formed with a central opening, a head turnable on said surface, a central neck depending from the head through the opening and to which the upper end of the shaft is fixed, a globe-engaging unit secured on and upstanding from the head, an extension member turnable in and projecting below the handle, means securing the shaft at its lower end in said member, and an upwardly facing shoulder abutting against the lower end of the handle.

FRANK R. NEGLEY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
578,394	Dunn et al.	Mar. 9, 1897
809,985	Rundberg	Jan. 16, 1906
840,102	Bates	Jan. 1, 1907
1,201,506	Rozelle et al.	Oct. 17, 1916
1,202,432	Rozelle et al.	Oct. 24, 1916
1,258,430	Morris	Mar. 5, 1918