April 17, 1928. 1,666,468

O. E. PHELIX

GLOBE MANIPULATOR

Filed May 5 1927

Fig. 1.

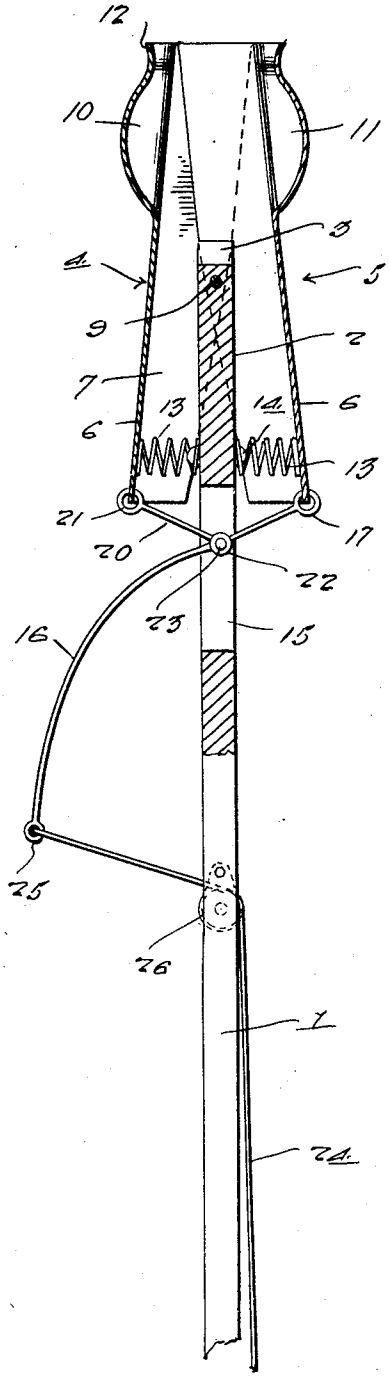
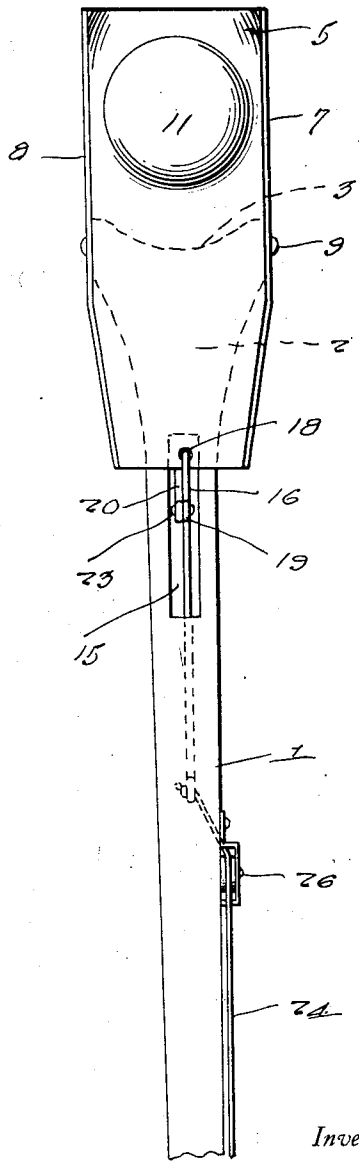


Fig. 2.



Inventor

Otto Elmer Phelix

By Clarence A. O'Brien

Attorney

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OTTO E. PHELIX, OF TULLY, NEW YORK.

GLOBE MANIPULATOR.

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The present invention relates to a simple and efficient device for facilitating the removal or insertion of electric light bulbs in their respective sockets which are located at a point ordinarily inaccessible and which heretofore has required the use of a ladder in order to reach said bulb.

A further object of the invention is to provide a globe manipulator which will save considerable time and labor in removing a bulb from its socket located in a relatively high ceiling, wherein the device includes an elongated pole on the upper end of which is mounted a pair of coacting jaw members which are adapted to enclose and grip the globe when properly actuated, whereby the globe may be turned by slightly rotating the handle portion of the pole.

A still further object is to provide a globe manipulator of the above mentioned character which will at all times be positive and efficient in its operation, the same being further simple in construction, inexpensive, strong and durable and further well adapted to the purpose for which it is designed.

In the accompanying drawing forming part of this application:

Figure 1 is a vertical sectional view through the upper portion of the globe manipulator, and

Figure 2 is a side elevation thereof.

In the drawing wherein for the purpose of illustration is shown the preferred embodiment of my invention, the numeral 1 designates an elongated pole which is substantially rectangular in cross section and the upper end of this pole is enlarged as indicated at 2. The upper edge of the enlarged portion 2 is concave as indicated at 3 for a purpose to be hereinafter more fully described.

A pair of coacting jaw members 4 and 5, respectively, are provided for cooperation with the enlarged upper end of the pole 1, and each of these members comprises a plate-like body 6 of rectangular shape, the longitudinal edge portions of which are disposed laterally as indicated at 7 and 8, respectively, for disposition on opposite sides of the edges of the upper portion 2 of the pole 1. The laterally disposed side edge portions 7 and 8 of the complementary jaw members are disposed in overlapping relation and these jaw members are pivotally connected together at a point intermediate their ends through the medium of the pivotal connection 9 between the overlapping edge portion and the upper portion of the enlarged upper end 2 of the pole 1, in the manner clearly shown in the two figures in the drawing.

The upper portions of the plate-like body 6 of the complementary jaw members 4 and 5 are disposed above the upper edge of the pole 1 and this particular portion of each of the plate-like bodies is bulged outwardly to provide the complementary globe engaging jaws 10 and 11 respectively.

The upper edge of each plate-like body is flared as illustrated at 12 so that the sharp edges of the plate like body will not strike the bulb and break the same during the use of the globe manipulator.

The coacting jaws 10 and 11 are normally disposed in a closed position through the medium of the expansible coil springs 13 which are arranged between the lower portion of the plate-like body of each jaw member and the adjacent side of the lower portion of the enlarged upper end 2 of the pole 1. Suitable studs 14 project from the respective side faces of the enlarged upper end 2 around which the inner ends of these coil springs engage and normally these coil springs exert an outward pressure on the lower end portions of the jaw members 4 and 5 as is readily obvious from the construction shown in Figure 1.

The longitudinally extending slot 15 is formed in the pole 1 adjacent the lower ends of the jaw members 4 and 5 and the purpose of this slot will be presently apparent. A curved rod 16 has its upper portion extending through the slot 15 and an eye 17 is formed on the upper end of this curved rod for engagement through a suitable opening 18 provided therefor in the lower end portion of the plate-like body 6 of the jaw member 5. An additional eye 19 is formed in that portion of the curved rod 16 which is disposed within the slot 15 and this is more clearly disclosed in Figure 2 of the drawing.

A link 20 is formed at one end with an eye 21 which engages through a suitable opening provided therefor in the lower end portion of the plate-like body 6 of the other jaw member 4. A smaller eye 22 is formed on the other end of this link and the eyes 19 and 22 are adapted to be disposed in

alinement to receive the transverse connecting pin 23, whereby the curved rod 16 will be operatively connected to the link 20. Also the pivot or connecting pin 23 is free to move within the slot 15 as is clearly shown in Figure 2.

The lower end of this curved rod 16 is spaced from the pole 1 and connected to the lower end of this curved rod is an actuating cable 24, the lower end of this curved rod is formed with an eye 25 to permit the attachment of the upper end of the cable thereto. A pulley 26 is secured on the side of the pole and the cable 24 is trained over this pulley and the lower end of the cable extends downwardly alongside of the pole to the handle portion thereof (not shown). With the parts arranged as shown in Figure 1 of the drawing, the jaws 10 and 11 are disposed in a closed position. When globe manipulator is to be used in removing an electric light bulb from its socket in the ceiling, the pole is raised upwardly so that the jaw members 4 and 5 are disposed slightly below the bulb. The free end of the cable is then pulled downwardly and this will cause the curved rod 16 and the link 20 which is operatively connected thereto to move the lower ends of the jaw members 4 and 5 inwardly, thereby moving the jaws 10 and 11 formed at the upper portions of the jaw members outwardly to an open position whereby said jaw members may be provided to encircle the bulb. By releasing the cable, the springs 13 will normally urge the lower ends of the jaw members outwardly and simultaneously the jaws 10 and 11 will be moved inwardly into gripping engagement with the globe and by slightly rotating the pole, the globe can be readily removed from the socket. The concaved upper edge 3 of the pole 1 will cooperate with the bulged jaws 10 and 11 to properly conform to the contour of the bulb so that the same will not be apt to be broken during the removal or insertion of the same.

The simplicity of my device enables the same to be readily and easily positioned for use and will at all times be positive and efficient in carrying out the purposes for which it is designed.

A globe manipulator of the above mentioned character will save considerable time and labor in removing or inserting electric light bulbs and this without any danger of breaking the bulb.

While I have shown the preferred embodiment of my invention it is to be understood that minor changes may be made therein without departing from the spirit of the invention and the scope of the appended claims.

Having thus described the invention, what I claim is:—

1. In a globe manipulator, a pole, a pair of coacting jaw members pivoted on the upper end of the pole, said pole being provided with a longitudinal slot below the jaw members, globe engaging jaws formed on the upper ends of the jaw members, expansible coil springs disposed between the lower ends of the jaw members and the respective sides of the pole for normally holding the jaws in a closed position, means carried by the pole and connected to the lower ends of the jaw members for moving the lower ends of the jaw members inwardly to simultaneously open the jaws, said means comprising a curved rod extending through the slot, the upper end of the rod being connected to the lower end of one of the jaw members, a link connected at one end to the lower end of the other jaw member, the other end of the link being pivotally connected to the intermediate portion of the curved rod, and an actuating cable connected to the lower end of the rod.

2. In a globe manipulator, a pole, the upper ends thereof being enlarged, a pair of opposed jaw members, each comprising a plate like body, the side edges thereof being disposed laterally, the laterally disposed edge portions of the plate like bodies arranged in overlapping relation on the opposite side edges of the enlarged upper end of the pole and being pivotally connected thereto at a point intermediate the ends of the jaw members, coacting globe engaging jaws formed at the upper portions of the plate-like bodies, expansible coil springs disposed between the lower ends of the plate-like bodies of the jaw members and the respective sides of the pole for normally urging the jaws in a closed position, means connected with the lower ends of the jaw members for moving the same inwardly to simultaneously open the jaws, said last mentioned means comprising a curved rod connected at its upper end to the lower end of one of the jaw members, a link connected at one end to the lower end of the other jaw member, and at its opposite end to the intermediate portion of the rod, and an actuating cable connected to the lower end of the rod.

3. In a globe manipulator, a pole, the upper end thereof being enlarged, the upper edge of the enlarged portion being concaved to provide a rest for the rounded bottom portion of an electric light globe, a pair of opposed jaw members, each comprising a plate like body, the side edges thereof being disposed laterally, the laterally disposed edge portions of the plate like bodies being arranged in overlapping relation on the opposite side edges of the enlarged upper end of the pole and being pivotally connected thereto at a point intermediate the ends of the bodies, the upper portions of the plate-like bodies being bulged outwardly to provide coacting globe engaging jaws, the upper edge of each plate like body being flared,

means for normally urging the jaws in a closed position, and additional means for moving the jaws to an open position.

4. In a globe manipulator, a pole, the upper end thereof being enlarged, the upper edge of the enlarged portion being concaved to provide a rest for the rounded bottom portion of an electric light globe, a pair of opposed jaw members, each comprising a plate like body, the side edges thereof being disposed laterally, the laterally disposed edge portions of the plate-like bodies being arranged in overlapping relation on the opposite side edges of the enlarged upper end of the pole and being pivotally connected thereto at a point intermediate the ends of the bodies, the upper portions of the plate-like bodies being bulged outwardly to provide coacting globe engaging jaws, the upper edge of each plate like body being flared, means for normally urging the jaws in a closed position, additional means for moving the jaws to an open position, said last mentioned means comprising a curved rod, said pole being formed with a slot below the enlarged head through which the curved rod extends, the upper end of the curved rod being connected to the lower end of one of the jaw members, a link connected to the lower end of the other jaw member, the other end of said link extending into the slot and being pivotally connected to the intermediate portion of the curved rod, and an actuating cable connected to the lower end of the curved rod.

In testimony whereof I affix my signature.

OTTO E. PHELIX.