(No Model.)

F. A. BUTTERFIELD.

MEANS FOR ATTACHING AND DETACHING ELECTRIC LAMPS.

No. 556,959. Patented Mar. 24, 1896.

Fig. 2.

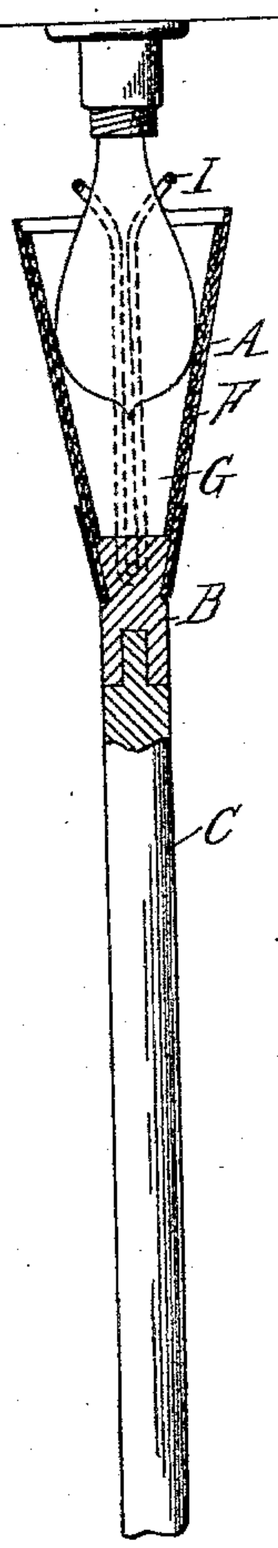


Fig. 1.

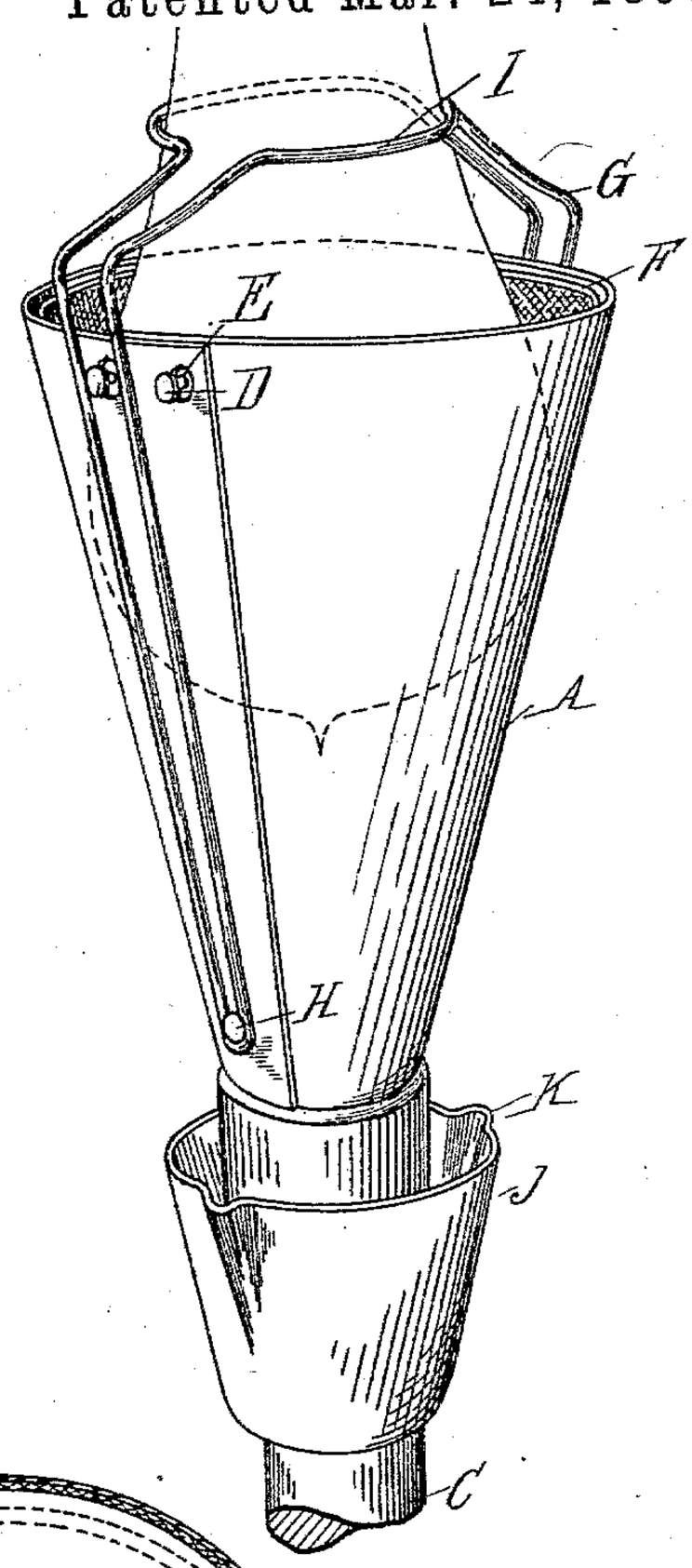
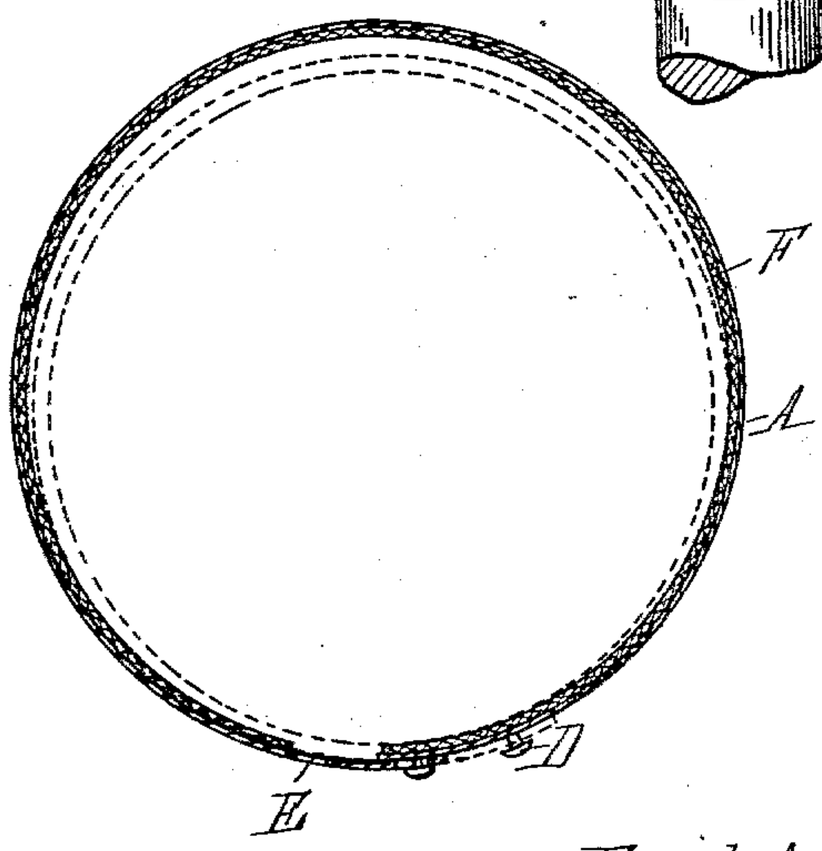


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANK A. BUTTERFIELD, OF DETROIT, MICHIGAN.

MEANS FOR ATTACHING AND DETACHING ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 556,959, dated March 24, 1896.

Application filed June 1, 1895. Serial No. 551,362. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. BUTTERFIELD, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Means for Attaching and Detaching Electric-Lamp Bulbs, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the construction of a device for attaching and detaching incandescent-lamp bulbs, and comprises a conical casing having a handle attached thereto, the inner face of the casing being provided with such material as to make a frictional contact or hold upon the glass of the bulb by a slight endwise pressure, so that by subsequently turning the casing the screw of the bulb may be attached to or detached from its socket.

The invention further consists in the construction of the parts whereby this casing is made adjustable, and, further, in the combination, with such a casing, of springs-jaws adapted to embrace the bulb above its enlargement to assist in holding it firmly in the casing or cone, all as more fully hereinafter described.

The object of the invention is to provide a device which will enable me to attach and detach lamps which are of such height or in such position in relation to the floor as to make it inconvenient or difficult to reach them by hand.

By using my device with a handle of greater or less length it may be employed to remove lamps in the top of churches or in otherwise inaccessible places.

In the drawings, Figure 1 is a perspective view of my improved device, showing the bulb of the incandescent lamp engaged therein with the holding-sleeve for the spring-jaws loosened. Fig. 2 is a vertical central section therethrough with the sleeve in its proper position. Fig. 3 is a horizontal section through the top of the cone.

A is a conical casing preferably formed by a single sheet of metal cut in such shape as to form substantially a cornucopia with its edges overlapping. The lower end of the cone is preferably cut off to form a socket in the lower end for the reception of the head B, to which any suitable handle may be attached, such as the handle C. The upper end or the mouth of the cone I preferably make adjustable by employing headed pins D secured to one lip or edge adapted to engage through any one of a series of apertures E and the other lip or edge, as plainly shown in Fig. 3. The inner face of the cone or casing I line with a lining of rubber F or other similar material, unless the cone itself were made of such material as would give a good grip upon the plain outer surface of the bulb, in which case the lining may be omitted.

The device thus constructed is engaged over the end of an incandescent-lamp bulb, as shown in Fig. 2, and a slight endwise pressure will take a sufficiently firm grip thereon to enable the operator by turning the handle to remove the bulb from its socket.

I may and preferably do provide the cone with means for holding the bulb therein against accidental displacement in raising or lowering it to or from the chandelier or fixture. This I have shown as formed of two spring-jaws G, the lower end looped about the securing screw or bolt H, which passes through the cone and head B, and at the upper end provided with a semicircular bearing I to permit of the end of the bulb engaging therein. These spring-jaws I preferably secure in position by means of a sleeve or collar J, engaging with the lower end of the cone and having grooves K to receive the legs of the spring-jaws. These spring-jaws will readily separate as the device is pushed upon the bulb and will clasp the bulb above the enlargement, as shown in Figs. 1 and 2, to prevent its accidental displacement when it is disengaged from its socket.

What I claim as my invention is—

1. In a device for removing incandescent-lamp bulbs, the combination of a conical casing formed of a single piece of sheet metal having overlapping edges, means for adjusting the overlapping edges to vary the size of the casing, gripping material on the inner face of the casing and a handle on which the casing is mounted, substantially as described.

2. The combination of the conical casing having an inner gripping-surface as described, of spring-jaws arranged across the end of the casing with curved bearings such

as I, and a handle secured to the small end of the casing, substantially as described.

3. The combination of the cornucopia-shaped casing, adjustable at its upper end as to size, the rubber lining therein, the handle secured to the small end, the spring-jaws having their legs extending down to the lower end of the casing, the securing-bolt passing through the casing, and the head of the handle, and a sleeve J having the grooves K adapted to embrace the lower end of the sleeve and the legs of the spring-jaw, substantially as described.

4. A device for attaching and detaching incandescent-lamp bulbs, consisting of a conical casing having gripping material on its inner face, yielding jaws projecting over and above the upper end of the casing, and a handle at the opposite end of the casing, substantially as described.

5. In a device for attaching and detaching lamp-bulbs, the combination with a conical casing having gripping material on its inner face, spring-clamps projecting above the casing, a handle, and adjustable means for holding the clamps in adjusted positions, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK A. BUTTERFIELD.

Witnesses:
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