No. 734,875. PATENTED JULY 28, 1903.

H. HUBBELL.

CLUSTER CENTER FOR INCANDESCENT LAMPS.

APPLICATION FILED OCT. 27, 1902.

NO MODEL.

Fig. 1.

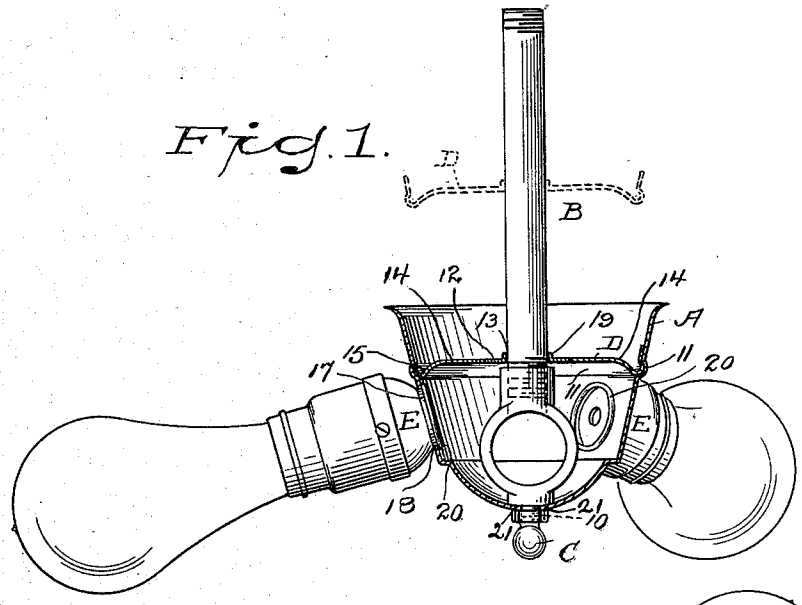
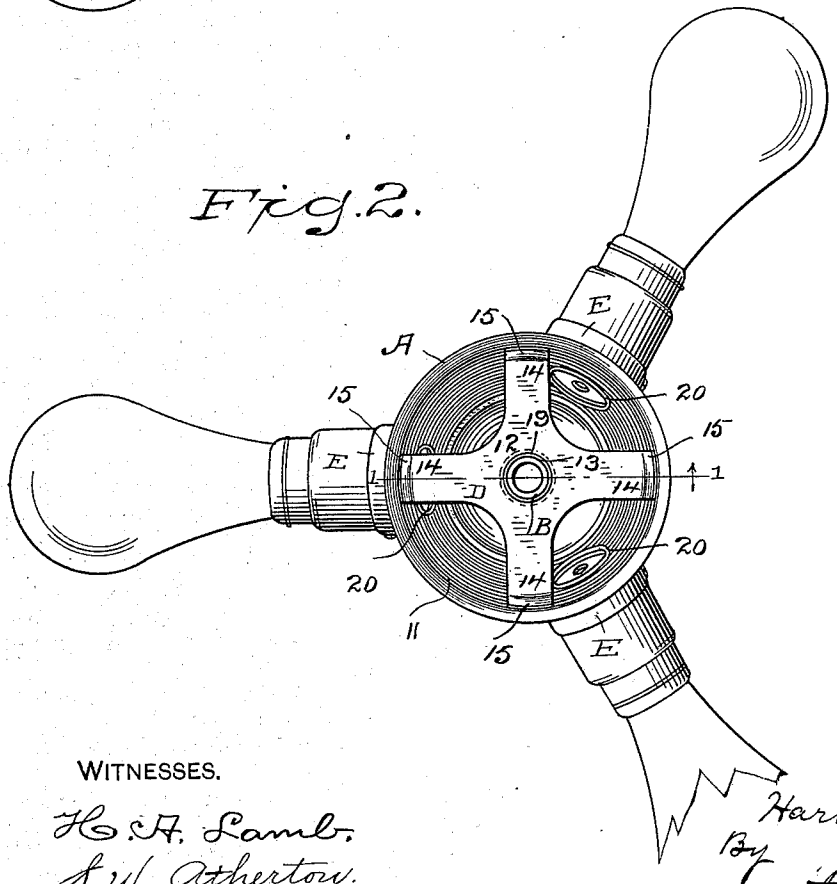


Fig. 2.



WITNESSES.

H. A. Lamb.

S. W. Atherton.

INVENTOR.

Harvey Hubbell

By A. M. Wooster

Atty

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 734,875. Patented July 28, 1903.

UNITED STATES PATENT OFFICE.

HARVEY HUBBELL, OF BRIDGEPORT, CONNECTICUT.

CLUSTER-CENTER FOR INCANDESCENT LAMPS.

SPECIFICATION forming part of Letters Patent No. 734,875, dated July 28, 1903.

Application filed October 27, 1902. Serial No. 128,851. (No model.)

To all whom it may concern:

Be it known that I, HARVEY HUBBELL, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented a new and useful Cluster-Center for Incandescent Lamps, of which the following is a specification.

My invention has for its object to provide a cluster-center for incandescent lamps which shall be neat and attractive in appearance, strong and durable, and which shall at the same time be very much cheaper to make than any device of its character now upon the market, owing to the fact that the shell is made from a single piece of metal and that the special structure of the center as a whole is such that it may be made of much thinner metal than has heretofore been possible and still be amply strong and have, moreover, the advantages of being closed at the bottom and, what is still more important, being easy to get at to adjust, repair, or renew the electrical connections.

With these ends in view I have devised the simple and novel cluster-center which I will now describe, referring to the accompanying drawings, forming part of this specification, and using reference characters to indicate the several parts.

Figure 1 is a vertical sectional view on the line 1 1 in Fig. 2, illustrating the construction of my novel cluster-center, the shade-holder and shade being omitted; and Fig. 2 is a plan view with the shade removed.

My novel cluster-center, as illustrated, comprises a shell A, which may be made of any preferred ornamental design and is closed at the bottom, with the exception of a hole for the stem, a stem B of ordinary construction, an exterior nut C, a removable and adjustable brace D, and socket-caps E, which are rigidly secured to the shell by turning down the metal of the caps over the inner face of the shell, all intermediate parts being dispensed with. In the present instance I have illustrated a stem made in two parts, the lower part, which is provided with an opening through which the electrical connections may pass, being known to the trade as a "hickey." For the purposes of my invention, however, it is wholly immaterial what special style of stem is used. The stem is provided with a reduced threaded portion 10, which passes through the hole in the bottom of the shell and is engaged by the nut C, the inner side of the shell resting against a shoulder 21 upon the stem. The shell is provided with an internal circular groove 11, which may be rolled in the metal thereof. The removable brace D is an important feature of the invention. It comprises a center 12, having an opening 13, preferably flanged, as at 19, through which the stem passes, and a plurality of arms 14, preferably turned at an angle at the ends and rounded, as at 15, to adapt them to engage the groove firmly, as clearly shown in Fig. 1, and also to permit the brace to be oscillated on the stem, as is frequently necessary in order to attach or adjust the electrical connections. It will be noted that this mode of constructing a cluster-center enables me to produce a strong, serviceable, and highly-ornamental center at a minimum expense, owing to the fact that there are but few parts, all inexpensive to make, and that the shell being held and braced firmly by brace D may be made of relatively light metal. The center as a whole is easy and convenient to use, owing to the fact that the brace may be oscillated on the stem, thus giving convenient access to the wires, or may be raised up on the stem entirely away from the center, if necessary, as indicated by dotted lines in Fig. 1. It should be understood that the shade, which is ordinarily used and whose construction is of course wholly immaterial so far as the principle of the invention is concerned, covers the open top of the shell. I have omitted the shade from the drawings, however, for the reason that it forms no part of my present invention and may be dispensed with, if preferred.

The socket-caps E are struck up from sheet metal, each cap being provided with a short neck 17, which is adapted to be passed through an opening 18 in the shell and then turned down closely on the inner side of the shell, as at 20, to lock the cap in place. This special construction of the socket-caps and shells enables me to make a firmer, stronger, and very much cheaper connection than has heretofore been used, so far as I am aware, for the reason that the ordinary connecting parts—two brass nipples, both threaded—are dis-

pensed with and a new construction substituted in lieu thereof, in which the socket-caps are rigidly and permanently attached to the shell.

Having thus described my invention, I claim—

1. A cluster-center for incandescent lamps comprising a shell having an internal circular groove, a stem to which the shell is secured and a brace carried by the stem and having arms which engage the groove.

2. A cluster-center for incandescent lamps comprising a shell having an internal groove, a stem to which the shell is secured and an adjustable brace having a center which engages the stem and arms turned at an angle at the ends and rounded to engage the groove in the shell.

3. A cluster-center for incandescent lamps comprising a shell having an internal groove, a stem to which the shell is secured and a brace comprising a center having a flanged opening through which the stem passes, and arms having rounded ends which engage the groove in the shell.

4. A cluster-center for incandescent lamps comprising a shell having an opening 18 and a groove 11, a stem to which the shell is secured, a socket-cap having a neck passing through the opening and turned down closely on the inner side of the shell to lock the cap in place and a brace adjustable on the stem and having arms which engage the groove in the shell.

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

HARVEY HUBBELL.

Witnesses:
A. M. WOOSTER,
S. W. ATHERTON.